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Mentoring Unfolded

The Evolution of an Emerging Discipline

BY

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DISSERTATION

Submitted in Partial Fulfillment of the
Requirements for the Degree of

Doctor of Philosophy
Organizational Learning and Institutional Technology

The University of New Mexico
Albuquerque, New Mexico

December, 2012

DEDICATION

To Juan, Gaby, and Iván, my reasons to exist

ACKNOWLEDGEMENTS

I owe my deepest gratitude to the many people that have contributed to achieving this milestone in my career.

Dr. Patricia Boverie, my advisor and dissertation chair, who took me under her wings despite her many other academic and professional commitments, introduced me to the world of mentoring, and has been a true mentor along my career.

Thank you to the members of my committee: Dr. Bruce Perlman, Dr. Mark Salisbury, and Dr. Eliseo Torres for their continuous support not only in my professional endeavors but for making me feel welcomed in a foreign country that has become my home.

To Dr. Brad W. Johnson, Dr. Lois Zachary, Dr. Kathy Kram, Dr. David Clutterbuck, and Dr. Belle Rose Ragins for their contributions to the field of mentoring and the mentoring conference. Thank you for your keynote addresses and the conversations that inspired this dissertation.

My appreciation to Dr. Joseph Pascarelli [deceased] for introducing me to the International Mentoring Association. His kind words and guidance will always be remembered.

To my parents, Carmen and Juan Domínguez, who have always supported and encouraged my endeavors, for their example of dedication and hard work.

To Juan de Dios Pineda, my loving husband, who has been my inspiration and support to achieve this milestone, for his patience and kind words of encouragement.

To Iván and Gaby, the lights of my life, for all the happiness they bring every day.

Mentoring Unfolded:

The Evolution of an Emerging Discipline

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ABSTRACT

The purpose of this study was to outline the development of mentoring in the fields of business, education, and psychology over the past three decades. With the aim of revealing an organized framework of the theory and practice of adult mentoring in academic and workplace contexts, a systematic review of 25 books and 80 articles published in peer-reviewed journals between 1978 and 2012 was analyzed using two methodological approaches: qualitative meta-summary and qualitative meta-synthesis. Through the analysis of published literature, this study provides a taxonomy of evidence-based mentoring best practices for the creation and maintenance of exemplary formal adult mentoring programs.

Keywords: adult mentoring, best practices, research synthesis, systematic review, qualitative meta-analysis

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Chapter I

Introduction

Complexity in organizations demands the implementation of dynamic strategies to adapt to changing environments. In order to survive the challenges of the 21st Century, organizations have experienced a proliferation of mentoring programs, both in workplace settings and academic contexts. The purpose of this study was twofold:

1. In conducting a research synthesis of mentoring articles using grounded theory methodology, this investigation provides a historical framework of the theory and practice of adult mentoring in academic and workplace contexts for better understandings of this emergent field.
2. The study generates a taxonomy of evidence-based mentoring best-practices for the creation and maintenance of exemplary formal adult mentoring programs.

This chapter provides a brief description of the background of the study, delineates its purpose and significance, and synthesizes the theoretical framework and methodology used to accomplish these objectives.

Background of the Study

Governmental agencies and corporate institutions around the world are facing major challenges in the 21st Century due to several factors, including:

- The aging, retirement, and attrition of the Baby Boomers;
- The high turnover of generations X and Y workforce members; and
- The increasing complexity of business processes and procedures in the transition from the Information Age towards the Conceptual Age (Pink, 2005).

These phenomena are creating a great risk for organizations of losing key intellectual capital, competitive advantages, and effectiveness. Since the 1970s, corporations and organizations in the business sector have applied various strategies and programs not only to keep their social capital but also to help employees develop in this environment. According to Clutterbuck and Lane (2004), one of the most effective and efficient strategies applied to address the complexity of work settings is the establishment of formal mentoring relationships. Mentoring programs have proven to be an effective strategy to increase personnel retention and satisfaction, to accelerate the development of leadership, and to reduce the learning curve in response to a more demanding, competitive, and global market (Hegstad, 1999; Jossi, 1997; Murray, 2001).

The academic world faces similar challenges but with the added responsibility to capture talented faculty capable of developing the next generation of entrepreneurs, professionals, and world leaders. Intentional and deliberate mentoring is now a recognized strategy to positively impact academic achievement and persistence by increasing the likelihood of graduation and predicting higher GPAs for college and graduate students (Johnson, 2007b).

Regardless of the setting studied, mentoring has been accepted as a developmental approach that offers a range of individual benefits, including increased self-confidence, learning, competence, career advancement, and a solid professional identity, as well as organizational benefits such as increased performance, institutional loyalty, reduced turnover, and enhanced organizational learning (Kram, 2004).

However, mentoring is a dynamic and changing phenomenon. While a great body of scholarly and empirical studies has been developed and a set of strategies to foster

mentoring has emerged, there are many unsolved problems in the field of mentoring. The main conclusion from many of these studies is that "the most effective strategies for fostering mentoring depend on the context in which they are implemented, the purpose of such initiatives, and the values, skills and attitudes of potential participants" (Kram, 2004, p. xii). Therefore, a review and deep understanding of these mentoring best practices is essential for the development of the theory and practice of mentoring.

Problem of Study

In the past three decades, the field of mentoring has experienced significant growth. Mentoring is emerging as a formal field of study with a group of research organizations, regularly scheduled conferences, its own literature base, journals, and special interest groups.

The International Mentoring Association (IMA), based at Western Michigan University, was created in 1987 to promote individual and organizational development through mentoring best practices in public and private institutions, businesses, and industry. Based in Marlborough, United Kingdom, the European Mentoring and Coaching Council was formed in 2002 as an independent organization to promote effective practice in mentoring and coaching across Europe. Both organizations host annual international conferences, provide training and resources for practitioners, publish regular newsletters, and promote public forums and interest groups. Many other local or regional associations have been created in the past decade, including national, state, and university mentoring institutes and research centers.

Before the 1970s, the word mentoring was rarely used. Now a Google search of the word will yield more than 47 million matches, a search in library databases such as

EBSCO and Sage Premier will show more than 50,000 articles on the subject, and the literature on mentoring has grown exponentially with Amazon.com listing more than 5,000 books related to the topic.

Many journals, primarily in the fields of education, psychology, management, and associated disciplines, continuously publish articles related to adult mentoring; similarly, mentoring articles have appeared in almost every professional field. At least two professional and specialized journals have survived for more than a decade. The *Mentoring and Tutoring Journal* by Routledge, a division of Taylor & Francis, published its first issue in 1993, and the *European Journal of Mentoring & Coaching* launched December 1, 2003.

Regardless of the growth and development of the literature, many scholars complain that research on mentoring lacks empirical rigor (Crosby, 1999; Jacobi, 1991; Johnson & Nelson, 1999; Kardos & Johnson, 2010; Merriam, 1983), that the literature on mentoring has been biased in favor of the phenomena (Merriam, 1983), and that context plays a crucial role in the effectiveness of strategies fostering mentoring.

Furthermore, despite competing definitions and conceptions of mentoring and disagreement about the conditions under which it is effective, mentoring initiatives have flourished in business, government, and post-secondary settings. Although the proliferation of the literature and research in mentoring has contributed to an understanding of its nature, benefits, and processes (Kram, 2004), traditional concepts and approaches to mentoring that proved to be effective in the past might not be suitable for current changing environments.

Under these evolving circumstances, making sense of this dynamic and changing phenomenon can be a daunting task for novice, experienced researchers, and practitioners alike. The increasing popularity and proliferation of mentoring programs in the workplace and academic settings "makes imperative the understanding of the several issues that should be taken into consideration when designing and executing formal mentoring programs" (Allen, Finkelstein, & Poteet, 2009).

Purpose of the Study

The purpose of this study was to outline the development of the field of mentoring over the past three decades. This was accomplished using two methodological approaches to analyze literature published between 1978 and 2012: qualitative meta-summary and qualitative meta-synthesis. Through the analysis of published books and articles, this study provides two things missing for understanding mentoring and for creating and maintaining exemplary formal adult mentoring programs. First, it arrives at an organized historical framework of the literature of adult mentoring in academic and workplace contexts. Second, it yields a taxonomy of evidence-based mentoring best practices. Accomplishing these two objectives makes an important contribution to the field by presenting a framework and baseline for discussing and advancing the knowledge base in this emergent field.

Significance of the Study

As the body of research accumulates, a systematic review of the literature is essential to identify patterns in the evolution of an emerging subject. In particular, this exploratory study summarizes content knowledge about what mentoring is and how it can be differentiated from other interpersonal developmental relationships towards the

creation of an operational definition that allows for comparison across settings, disciplines, industries, and cultures.

A recapitulation and critical review of existing literature on a popular practice helps practitioners identify the elements of good methods. Finding what is known and what has been learned from different disciplines of study and summarizing them in a single source is of great value to students, researchers, and practitioners to better understand and design mentoring programs.

An historical account of the evolution of the field, the different functions, purposes and outcomes, processes, and models applied in mentoring initiatives facilitates the development of a theoretical framework in an area of research continuously progressing. Dialectically, the advancement in providing a theoretical structure to a practical field improves the effectiveness of mentoring interventions.

The evaluation of evolving types of mentoring, from traditional approaches to technology-mediated relationships, provides researchers and practitioners with a base for comparison and a toolbox of strategies to choose from while designing mentoring programs and research studies. Establishing a common definition for mentoring roles and competencies for mentors, mentees, and program managers leads to the development of a set of mentoring standards. Similarly, the integration of mentoring best practices across settings influences the development of a mentoring curriculum for higher education with emphasis on learning and performance.

Finally, examining, comparing, and synthesizing books and articles on mentoring provides a picture of the state of development in research with the purpose of identifying

gaps in the literature and allowing the development of recommendations for future studies that will extend the understanding of mentoring relationships.

Research Questions

This research synthesis sought to answer the following:

What has been learned regarding adult mentoring in the last three decades?

- How has the discipline of mentoring evolved in the last three decades?
- What are the theoretical principles of adult mentoring?
- What are the evidence-based best practices for adult mentoring in various contexts?
- What are the implications of the foregoing for the current practice of mentoring?

Framework of the Study

This study focused on conducting a research synthesis of mentoring publications using grounded theory methodology. Contemporary literature was used as a data source to aggregate and generate knowledge for the advancement in the field. According to Merriam (1991), the decision to choose the research design depends on a consideration of the nature of the research question and the desired end product. This study used primarily grounded theory (Creswell, 1998; Strauss & Corbin, 1998) as the paradigm for qualitative methods employed. A qualitative approach for knowledge generation in an emerging field is appropriate, since "qualitative research methodologies focus on discovering the nature and essence of phenomena; have as a goal of investigation to develop our understanding through a process of discovery and description; and their design is flexible, evolving, and emergent" (Merriam, 2009, p. 16-21). In addition, Merriam advises that

"grounded theory is particularly useful for addressing questions about process, that is, how something changes over time" (p. 30).

The desired end product of this study was a taxonomy of mentoring best practices. To accomplish this aim, an interpretative approach to qualitative meta-analysis, referred to as *qualitative research synthesis*, was preferred due to the nature of the topic being studied. Research synthesis "as a family of research methods with diverse theoretical an procedural inclinations is the analysis of analysis" (Chen, 2005, p. iv). According to Light and Pillemer, as cited in Greenberg (1992), "for science to be cumulative, synthesizing existing evidence is a necessary intermediate step" (p. 147). An interpretative analysis of the literature is best used to gain insights concerning theoretical issues in an emerging discipline that is fragmented and whose parts may seem unrelated.

Books and articles published in peer reviewed journals were chosen as the main source of data for this study, given that "using documentary material as data is not much different from using interviews or observations" (Merriam, 2009, p. 150). Using documents in a comparative method of data analysis provided the means to finding themes and recurring patterns. This approach is particularly useful to identify mentoring best practices across disciplines and contexts, those practices that are considered "universal" in the design, and implementation of formal adult mentoring programs.

Methodology

Applying grounded theory and research synthesis methodologies has been identified as appropriate to address the research questions. Particularly, qualitative research synthesis techniques were used to develop a systematic review of 25 books and 80 articles to create a taxonomy of evidence-based adult mentoring best practices.

Research synthesis is a set of methodologies used to summarize a large body of information aimed to make sense of diverse findings of multiple studies on a topic or research question, particularly when “research has progressed to the point where scholars must take the time to analyze the existing research in an attempt to find the cement that glues” (DeWitt-Brinks, 1992, p. 5). Research synthesis “serves various purposes, one of them being synthesizing primary research studies into more general and theoretical conclusions” (Chen, 2005, p. iv).

Qualitative research synthesis, often denoted as *systematic review* of qualitative studies, or *qualitative meta-analysis*, refers to the "synthesis of a group of qualitative research findings into one explanatory interpretative end product" (Morse, 1997, p. 32). It incorporates diverse methodological approaches, such as *qualitative meta-summary* - integrations of findings across reports with a neutral view to discover patterns or themes in qualitative research - and *qualitative meta-synthesis*, the interpretative integration of qualitative findings where findings are reframed (DeWitt-Brinks, 1992). In this study, both approaches of qualitative research synthesis, meta-summary and meta-synthesis were used at various stages of the research process to reveal an organized framework of the theory and practice of adult mentoring in academic and workplace contexts, as well as to identify the evidence-based adult mentoring best practices.

Methodological procedures to perform this study followed Cooper’s (Cooper & Hedges, 1994) stages of research synthesis: “problem formulation, data collection, data evaluation, analysis and interpretation, and presentation of results” (p.4).

Procedures will also include a constant comparative process for:

- Theoretical sampling,
- Definition of criteria for selecting books and articles,

Chapter II

Review of Literature

Literature provides the necessary context for grounded theory applied to a research synthesis study. According to Glaser and Strauss (1967), grounded theory is context-bound; situating adult mentoring in workplace and academic settings will later lend to theoretical sampling and will define the understanding and boundaries of the phenomena of the study.

Origins of Mentoring

Homer's tale *The Odyssey* is often cited in the literature as the original source of the word mentor, making reference to Odysseus's best friend to whom he entrusted the education and guidance of his son Telemachus while Odysseus leaves to fight in the Trojan War. Mentor was expected to nurture and advocate on behalf of the prince. As Mentor fails in his mission, Athena, goddesses of wisdom, impersonates Mentor and displays mentor behaviors such as tutoring, role modeling, advising, and inspiring.

Even though Homer's work appears to provide us with a term to identify mentoring relationships, senior-junior pairs existed in prior eras, such as Moses and Joshua or Elijah and Elisha in Hebrew tradition. Multiple ancient cultures identified mentoring in literary works with patriarchal figures and those functions of discipleship (Carruthers, 1993).

However, the popularity of the term mentor is credited to Francois Fénelon, whose work *Les Aventures de Telemaque* (1699) translated into English in 1776 by Tobias Smollett became a political influence in the 18th Century. Based on the prestige of Homer's writings, Fénelon's account of Telemachus's adventures in search of his father

guided by Mentor reflected an important societal role - the one of magistrates and their young princes, becoming a classic and one of the most reprinted books of this period (Lee, 2010).

Several accounts of the word appeared also in epistolary collections aimed to provide moral and spiritual advice to a youthful audience, as, for example, the letters of Lord Chesterfield to his son. Later, references of mentor overlapped with the concept of the *Maecenas* and *Patron* due to the fact that many benefactors provided not only financial assistance but also advising and counseling and were confidants to their protégés. The patronage relationships abounded in the 18th Century in literary works, as well as in actual mentoring relationships among artists, as stated by Lee (2010):

> It was an age that sought, found, and lionized cultural mentoring heroes – Dryden, Addison and Steele's Spectator, Pope, Johnson – and which was preoccupied with a previously unseen self-conscious vigor in using literature of whatever form – poetry, the novel, conduct books, sermons, essays, and the political tract – as vehicles for didactic and ideological cultural transmission and assumption of authority. Many of these values can be identified in any age or culture, but what period so self-consciously deploys and exhibits these modes of mentoring, as did the Long Eighteenth Century? It thus recommends itself as a golden age of mentoring, and one that beckons scrutiny from a critically alert mentoring perspective (p. 12).

Soon after, the concept of mentoring came into general use in France and England as a common noun (Grassinger, Porath, & Ziegler, 2010). Since then the word mentor has been used to describe a wise, kind, selfless, caring, and trusted advisor. There are many examples of renowned mentoring relationships, such as the ones between Socrates and Plato, Plato and Aristotle, Aristotle and Alexander the Great, Merlyn and King Arthur, Hayden and Beethoven, Freud and Jung, Gertrude Stein and Ernest Hemingway, portraying a powerful, emotional interaction between an older and a younger person in

which the elder imparts to the younger experience, knowledge, and expertise (Merriam, 1983).

Besides these supportive relationships, apprenticeship relationships between older and younger men and women also mirrored one of the mentor and protégé. Apprenticeship was used to enforce an extensive conception of social order, control, and loyalty in the Middle Ages but was also a cultural and communal institution for the transmission of knowledge, competence, and expertise (Snell, 1996). “Work, training, socialization, finance and exchange, local political eligibility and involvement, family life and such concerns were all mutually integrated” (p. 304). In this sense, masters and mentors transmit the established canon; through lessons, stories, and by example, mentors convey "what you need to understand in order to live well and cope with the central problems and avoid the dangers in the predicament that human beings find themselves in” (Gray & Gray, 1986, p. 98).

Monaghan and Lunt (1992) believe the apprenticeship system represents the roots of mentoring and the trade guilds to be a practical and comprehensive description. The apprentice learns from the master tasks, processes, and skills; the master imparts also an understanding of the purposes, values, and attitudes for a better use of those skills, the so-called principles of role modeling. As well, a novice watches an expert work and uses the same process in his/her own work, a concept nowadays known as ‘shadowing’ (Charland, 2005).

Laws and regulations of work in England made it mandatory for families to place their sons in apprenticeship training for a period of seven years making the apprenticeship model the precursor of vocational training. A more traditional model was

employed in America where the master chose the most talented novices to keep high standards of quality, control the market, and reduce costs and effort in training (Charland, 2005).

In the 18th and 19th centuries, two forms for competence development co-existed: the traditional apprenticeship model to safeguard learning through practical experience and the new type of learning organized in schools. Apprenticeship relations are also considered the forerunners to employer-employee relationships in the industrial society, while the medieval concepts of the tutor (guard, custodian, defender), the preceptor (teacher, tutor), and monitor (in-school advisor, admonisher) might be consider the transitional figures of mentors into our modern scholarly system (Jacobi, 1991).

The industrialization of the European Nations triggered radical changes in the structure of society, lifestyle, and political systems. The traditional apprenticeship model, the personalized instruction of the novice until mastery was achieved, was replaced by specialized and standardized academic training. The individualized learning process was substituted by defined school attendance rules and the half-time system of education. The profound, long term, and nurturing relationship between master and apprentice, mentor and protégé, was replaced by a highly impersonal relationship between teachers and students, trainers and trainees, employers and employees; the essence of mentoring, the bonding of relationship, individual development, and the identity of purpose shared by mentor and protégé were reduced to appearance only. Massive education ruled by institutional goals, capitalistic economic competition, and technological development displaced the Homeric and classical mentoring types of education (Jacobi, 1991) .

While mentoring approaches (classical mentoring, apprenticeship, patronage, tutoring, preceptorship) disappeared as a formal system for transmission of skills, culture, and values in preparation for adulthood, informal mentoring has remained imbedded in different cultures from the past to the present day. Alongside formal and institutionally directed roles, teachers, counselors, advisors, coaches, tutors, supervisors, employers, etc., both in academic and workplace settings, have developed informal mentoring relationships throughout time.

Although formal mentoring approaches seemed to reappear in 1931 when "The Jewel Tea Company paired each MBA who entered the firm with a senior manager during the newcomer's early-career period" (Douglas, 1997, p. 75), the work of Daniel J. Levinson, *The Seasons of a Man's Life* (1978), is considered the rebirth of mentoring. His study of the mentoring relationships of 40 men demonstrated the importance of a mentor in the lives and professional career of young adults. Levinson points out that:

> … a good mentor is a transitional figure who invites and welcomes a young man into the adult world. He serves as guide, teacher and sponsor. He represents skill, knowledge, virtue, accomplishment - the superior qualities a young man hopes someday to acquire. He gives his blessing to the novice and his Dream. And yet, with all this superiority, he conveys the promise that in time they will be peers. The protégé has the hope that soon he will be able to join or even surpass his mentor in the work they both value. A mentor can be of great practical help to a young man as he seeks to find his way and gain new skills. But a good mentor is helpful in a more basic, developmental sense. This relationship enables the recipient to identify with a person who exemplifies many of the qualities he seeks. It enables him to form an internal figure that offers love, admiration, and encouragement in his struggles. He acquires a sense of belonging to the generation of promising young men (p. 333-334).

Despite this important role, Levinson emphasizes that the limited quantity and poor quality of mentoring relationships in educational institutions and work organizations

is an impediment to constructive social change (Levinson, 1978). After Levinson's study, a multitude of studies of formal and informal mentoring relations in academic and workplace settings have been developed, transpiring the modern era of mentoring.

Mentoring in Organizations

Human socio-economic development has been described by Charles Savage (1996) as a succession of management waves. He states that the first wave was the Agricultural Age with wealth defined as ownership of land. In the second wave, the Industrial Age, wealth was based on ownership of capital, and in the Knowledge Age wealth is based upon the ownership of knowledge and the ability to use that knowledge to create or improve goods and services. In the Knowledge Age, organizations are required to constantly adapt themselves to survive in an environment of continuous change and fierce competition. Most organizations have failed in this transition:

> …based on most surveys of corporate births and deaths, the average life expectancy of a multinational corporation is between 40 and 50 years; for example, a full one-third of the companies listed in the 1970 Fortune 500 had vanished by 1983 – acquired, merged, or broken into pieces (De Geus, 1997, p. 2).

To compete in a global economy, companies need "shorter product life cycles, concurrent engineering, greater cross-functional coordination, and external coordination with suppliers and distribution channels" (De Geus, 1997, p. 170).

This shift in the economic forces has also created an increasing need for an academically capable workforce and a new generation of management. Knowledge Workers (Drucker, 1973), the employees who work primarily with information or the ones who develop and use knowledge in the workplace, "outnumber all other workers in

North America by at least a four to one margin" (Haag, Cummings, McCubbrey, Pinsonneault, & Donovan, 2006, p. 4).

Knowledge workers are believed to produce more when empowered to make the most of their deepest skills. They can often work on many projects at the same time, know how to allocate their time, and can multiply the results of their efforts through soft factors such as emotional intelligence and trust (Fukuyama, 1995). Organizations designed around the knowledge worker are thought to integrate the best of hierarchy, self-organization, and networking - essential elements of what has been called the Learning Organization.

Peter Senge (1990) defines the Learning Organization as "an organization where people continually expand their capacity to create the results they truly desire, where new and expansive patterns of thinking are nurtured, where collective aspirations are set free, and where people are continually learning how to learn together" (p.3). Briefly defined, "learning organizations are companies [and institutions] that are continually transforming themselves to better manage knowledge, utilize technology, empower people, and expand learning to better adapt and succeed in the changing environment" (Marquardt, 1995, p. 27; Marquardt & Loan, 2005, p. 32).

Corporations and educational institutions are facing an increasing complexity of processes and procedures in the Knowledge Age in addition to the challenges of transitioning towards a new economic wave, the Conceptual Age, which is characterized by the Right Brain Workers: the creators, empathizers, pattern recognizers, and meaning makers, bringing to organizations a predominance of inventiveness, empathy, and meaning (Pink, 2005).

Organizations have responded to these environmental challenges in different ways. One common approach in the Knowledge Era has been the creation of new disciplines, such as Knowledge Management (KM), which refers to the guidelines, policies, and practices that an organization uses to create and transfer information to support the performance of the people in the organization. A Knowledge Management System (KMS) is the structure an organization uses to accomplish knowledge management. It comprises a range of practices used by organizations to identify, create, represent, and distribute knowledge for reuse, awareness, and learning (Cortada & Hargraves, 1999).

However, current knowledge management practices rely on storage and retrieval of information from large volumes of documents stored in databases within the organization. Information technology in this context provides efficient support for document management, but it has difficulties in meeting the flexibilities demanded by knowledge-sharing approaches. This document-centered strategy is inadequate if we view KM as a conscious strategy of getting the right knowledge to the right people at the right time to put it into action to improve organizational performance. Moreover, its attempt to capture the tacit knowledge of the knowledge worker has created large repositories of information that rarely turn into knowledge and certainly do not respond to the new demands of the Conceptual Age.

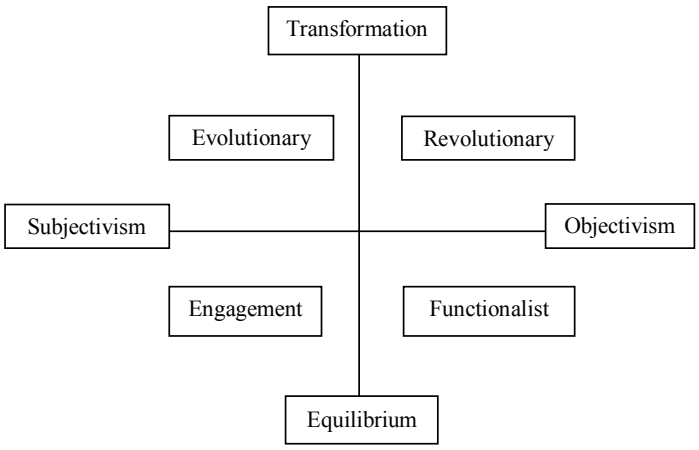
Mentoring viewed as an organizational learning process is a strategy to support the increasing need for continuous learning, both at the system and individual levels, as well as an approach to establish a better connection between the organizational demands and the individual needs of the Knowledge and Right Brain Workers.

Concepts and Perspectives

Mentoring relationships have been identified in modern history "in almost every profession, including science, literature, politics, the arts, athletics, and entertainment" (Allen & Eby, 2010, p. 7). Conversely, a contemporary interest in mentoring as an organizational strategy has been assigned to the work of Levinson (1978) and Kram (1985); both authors addressed the importance of relationships for human development and the role of a mentor as an instrument to facilitate learning and growth. Brockbank and McGill (2006) propose a classification of mentoring (Figure 1) linking the philosophical basis of the activity (subjectivism vs. objectivism) and the intended learning outcomes (equilibrium vs. transformation), resulting in four different approaches of mentoring:

Figure 1

Map of Mentoring Approaches (Brockbank & McGill, 2006, p. 11)



1. Functionalist mentoring serves the organizational needs by ensuring the maintenance of prevailing status quo through a focus on efficiency and clear measurable objectives; traditional mentoring following the apprenticeship model for career development has been recognized as functionalist.
2. Engagement mentoring focuses on the personal development of individuals through their commitment to develop nurturing relationships while maintaining the established status quo; mentoring programs supporting young people from minority groups have been identified as engagement mentoring.
3. Evolutionary mentoring provides an opportunity for individuals to take ownership of their learning and invites the examination of embedded power structures through a process of critical reflection. Essential for evolutionary mentoring is the generation of goals by and for the individual, and the learning outcome is transformation. Most mentoring programs in higher education, particularly those involving a faculty to student relationship, are considered evolutionary mentoring.
4. Revolutionary mentoring seeks to promote the transformation of society and radical change of organizations and individuals by disrupting the status quo. Mentoring programs looking for social justice and ultimately liberation are examples of this type of mentoring.

The Learning Organization

The idea of learning organizations has gained prominence over the last decades. In his book *The Fifth Discipline*, Peter Senge (1990) presented a picture of an organization where all employees are committed to life-long learning and where the goal

of an organization is to continually develop and grow. Briefly defined, "learning organizations are companies that are continually transforming themselves to better manage knowledge, utilize technology, empower people, and expand learning to better adapt and succeed in the changing environment" (Marquardt, 1995, p. 27).

Senge (1990) establishes that the core of learning organization work is based on five lifelong programs of study and practice called learning disciplines:

1. Individuals should be willing to contribute with their *Personal Mastery* to achieve the organizational mission.
2. Members of the organization come with their own *Mental Models* that shape how they act. The core task is making mental models explicit to create new mental models that serve us better in the organization.
3. *Shared Vision* is the vehicle for building a sense of commitment and a focus on mutual purpose.
4. Once we make our mental models explicit and share a vision of the future, we are in position to create *Team Learning*, the ability to develop a greater skill than that of any one individual.
5. At its broadest level, *Systems Thinking* integrates the disciplines in a new mindset of lifelong commitment in which individuals and organizations are constantly learning, adapting, and reshaping themselves to succeed.

Mentoring as a Learning Alliance

Interest in mentoring as a means to foster individual growth and development continues to flourish among researchers, practitioners, policymakers, educators, business leaders, and the public at large. In the last 25 years, mentoring has played a key role in

successful career and leadership development (Kram, 1985). For example, 71% of Fortune 500 companies use mentoring to ensure their continued success, and 96% of Fortune 500 executives believe mentoring has been an important component of their company's success (Hegstad & Wentling, 2004). Universities and academic programs frequently extol the benefits of mentoring, and most conclude that undergraduates and graduate students benefit alike.

Mentoring represents the most effective strategy for organizational learning. Mentoring theory, models, and practices are useful in the sense that they aim to provide practical means to individual and organizational learning. At its core, mentoring is a learning alliance that involves an intense relationship whereby a senior or more experienced person (the mentor) provides two functions for a junior person (the protégé): advice or modeling about career development behaviors and personal support, especially psychosocial support (Kram, 2004).

Regardless of the operational definition of mentoring, Alfred and Garvey (2000) maintain that mentoring contributes to knowledge productivity in organizations. Based on situated learning theories, they acknowledge the potential of mentoring to align individual and organizational aspirations for success through the development of a corporate curriculum. Alison Buck (2004) believes that mentoring interventions provide opportunities for continuous learning, create a structure to capture and share learning, and help to foster a culture of learning and experimentation. She recognizes that collaborative types of mentoring based on dialogue provide the foundations for group learning.

Mentoring is particularly successful in translating learning into productivity through the following processes:

1. Understanding how learning takes place in academic and workplace settings so we can understand the most effective ways to learn,
2. Identifying and creating learning partnerships, and
3. Transferring skills and tools learned in relevant and meaningful ways for personal, professional, and organizational growth.

Mentoring Contributions to the Learning Organization

Senge's (1990) five disciplines are useful to reveal a practical framework for the creation and sustainability of the learning organization. Mentoring as a learning alliance helps people identify their personal mastery and make explicit their mental models. A mentoring relationship facilitates the awareness of attitudes and perceptions through reflection and inquiry skills. Working with mental models is also effective in clearly and honestly defining current reality. Participants in a mentoring relationship develop their learning capabilities through engagement in reflective conversation, the ongoing process of developing skills and capabilities in three dimensions:

- Clarifying aspirations,
- Building awareness of personal competences and sensibilities, and
- Understanding complexity.

The dialogue that takes place in a mentoring relationship is also useful in creating a shared vision. Mentors cannot command commitment; they can only encourage it. Mentors provide a real, tangible image of what is possible, of what their protégés want to become, and where they want to be. Based on their personal experience, mentors help their protégés define and clarify their own vision, identify the obstacles, and find a way of working through these to achieve their aim. Good mentors get their message out in a

way that inspires, makes the most of their limited time, and builds roads to precious resources. They negotiate learning outcomes for personal and professional growth of their protégés and align them with the needs of the organization. The alignment of people's individual purpose with organizational objectives creates a shared vision.

Mentors and protégés also engage in dialogue that involves learning to recognize the patterns of interaction in teams, especially the patterns of defensiveness. Mentoring relationships develops the skills of groups of people to look for the larger pictures that lie beyond individual perspectives. In this sense, mentors facilitate the establishment of reciprocal commitments between individuals and the organization and the special spirit that makes up an endeavor of learners.

Through the sponsorship of a mentor, people learn to better understand interdependency and change and thereby are able to deal more effectively with the forces that shape the consequences of their actions. They also facilitate the understanding of symbolic and political dynamics of the organization, while making possible the introduction of the protégé to his/her own formal and informal networks. The communication and feedback flowing through those networks is at the core of thinking systems.

Lois Zachary (2005) goes beyond the previous ideas by asserting that creating a mentoring culture enables an organization to enrich the learning that takes place throughout the organization. She suggests that embedding mentoring in the organizational culture "helps people meet adaptive challenges, facilitates new learning and organizational resiliency in the face of rapid change" (p. 9), which creates a mentoring culture that starts with a reflective analysis of the organization.

An Organizational Framework for a Mentoring Culture

Bolman and Deal's (1997) model provides the organizational framework required to create and sustain a mentoring culture analyzing the organization from the perspective of four basic frames: structural, human resource, political, and symbolic.

The Structural Frame

In the structural frame, the analysis emphasizes the need for a social architecture to appropriately fit the organization's needs through effective allocation of responsibilities, policies, procedures, and coordination activities (Bolman & Deal, 1997).

A social architecture fostering a mentoring culture might include an array of elements. Foremost, a clear and explicit value of collaboration and knowledge sharing is needed to promote a mentoring culture. The value of mentoring might be transmitted to the whole organization through different means. For example:

- Statements in the mission, vision, and goals of the organization. An explicit inclusion of mentoring in the strategic framework of the organization transmits a clear message of the importance of learning and collaboration to the whole organization. Different units might use one or a combination of approaches to mentoring, depending on the desired learning outcomes.
- Allocation of resources in the form of a facilitated mentoring process. A facilitated mentoring process transmits the message that the organization values the expertise and knowledge of the mentors and encourages the learning of protégés in a functionalist approach to mentoring, promotes nurturing relationships in engagement mentoring, stimulates critical reflection in evolutionary mentoring, and creates the means for innovation in

revolutionary mentoring (Brockbank & McGill, 2006). A facilitated mentoring process might take the form of a mentoring program with participation of top management in mentoring activities, a systematic process to reward collaborative efforts in knowledge creation, and/or the facilitation of interactions, networking, and distribution of knowledge through technology or social events.

The structural framework (Bolman & Deal, 1997) determines the degree of formality vs. informality, who will mentor and who will be mentored, the roles of mentors and protégés, mentoring agreements and commitments, competences for mentoring - all critical issues shaping the form of the organizational architecture for a mentoring culture. Organizations might employ a variety of methods to coordinate individual and group mentoring initiatives with corporation-wide goals: vertically in a traditional mentoring approach where the mentors are senior or more seasoned leaders than the protégés; horizontally where subject expertise is the focus of the mentoring relationship rather than the hierarchy; and cellular where mentoring relationships are developed in a short term basis for specific organizational projects/purposes. The core mentoring process will ultimately be shaped by the desired learning outcomes for individual, group, and organizational learning.

The Human Resource Frame

The human resource frame (Bolman & Deal, 1997) requires an understanding of people and their symbiotic relationship within organizations. On one hand, individuals require organizations to fulfill their deepest human aspirations. On the other hand, organizations need individuals' knowledge, talent, and creativity to accomplish their

mission, vision, and goals. The key challenge is to decide if organizations should tailor to people or people should align and realign their needs and skills to their workplaces.

In an information intensive economy, the human resources dilemmas have increased. To survive in a hyper-competitive global world, organizations are demanding higher levels of skill and commitment from employees, while new generations are bringing new forms of relationships.

Mentoring has been traditionally used as a process of enculturation of new employees. Under the apprenticeship model, a senior leader provides mentoring functions to a junior employee with the main purpose of transmitting organizational norms and values by enhancing and accelerating the acquisition of skills and knowledge to become full members of the organization (Levinson, 1978). In this functionalist approach (Brockbank & McGill, 2006), mentoring relationships primarily benefit the organization in the form of efficiency and efficacy in the achievement of organizational goals and objectives.

More humanistic approaches to mentoring, such as engagement mentoring (Brockbank & McGill, 2006), have a deeper focus on the growth of the person by taking into account the employee's subjective experience and providing the space and time for nurturing relationships. In this sense, mentoring relationships provide the mentor and protégé with the means to fulfill their personal goals in alignment with organizational objectives. Through a process of psychosocial support that includes knowledge sharing, networking, and sponsorship, pathways for career development within the organization are created. Engagement mentoring is functionalist in its purpose of maintaining the status quo but humanistic in the process.

Evolutionary mentoring (Brockbank & McGill, 2006) focuses on the individual ownership of goals. In organizations, evolutionary mentoring is commonly identified as informal due to the self-selection nature of the mentoring relationship. Evolutionary mentoring is also an approach that might trigger transformational learning at the individual, group, and organizational levels through double and triple loop learning, a developmental and gradual processes of critical reflection (Argyris & Shön, 1992). While the spotlight of attention of evolutionary mentoring is the individual critical reflection process and personal responsibility for learning and development, this type of mentoring also benefits the organization when employees are involved in a reflective process to solve organizational problems. By challenging organizational assumptions, knowledge creation and innovation might generate.

Revolutionary mentoring (Brockbank & McGill, 2006) is observable in organizational settings on critical situations, such as mergers, acquisitions, and downsizing. When organizations are confronting survival issues, revolutionary mentoring provides the way for organizations and individuals to manage radical changes. By challenging established structures and assumptions, revolutionary mentoring provides the psychosocial support for employees to develop a sense of control of the situation. Revolutionary mentoring also offers the opportunity for transformational learning through a critical reflection on prevailing habits of mind that can be triggered by a critical situation [disorienting dilemma] (Mezirow & Taylor, 2009).

The organizational context and the expected learning outcomes of mentoring shape the form of mentoring in the human resources frame.

The Political Frame

The political frame focuses on the understanding of differences in needs and perspectives among individuals and groups competing for scarce resources and active conflict management. The central concepts on this frame are power, conflict, competition, and organizational politics. The challenge is to develop an agenda and the power base for mentoring to succeed (Bolman & Deal, 1997).

The traditional view of organizations places power on formal authority, hierarchies, and structures. However, from a political perspective, power emerges from an ongoing process of negotiation and conflict management among major interest groups where dominant groups might or might not be in control of the formal structures. Political activity might be more visible under conditions of diversity than in conditions of homogeneity (Bolman & Deal, 1997).

For mentoring to flourish from a political perspective, a clear map of arenas for politics and political agents is needed. A pooled value on knowledge sharing and collaboration among political agents is required to include mentoring within their own agendas, resources, and strategies.

Approaches to mentoring differ on power issues in the mentoring relationship. In a functionalist approach (Brockbank & McGill, 2006), a senior member of the organization who mentors a young novice member of the community sustains power. With this approach, power takes the form of knowledge and expertise ownership and sometimes also takes the form of formal authority. The directive and enculturation nature of functionalist mentoring creates the means for a hierarchical interplay of interests in

determining who participates and what interests will be pursued in the mentoring relationship.

In an engagement approach (Brockbank & McGill, 2006), power is still sustained by the mentor who promotes a process of enculturation but also includes a more humanistic perspective to the relationship by promoting the personal development of individuals. In this method, empowerment of individuals to fulfill their aspirations within the organizational context is facilitated through career development strategies. Inspired young members selected from minority groups have also used the engagement approach to promote a more varied workforce for organizational purposes. In this sense, the organization fulfills its need of talent, ideas, and knowledge creation coming from diverse groups, while minorities find organizational opportunities for personal growth and development.

Evolutionary mentoring (Brockbank & McGill, 2006) recognizes the power of individuals taking ownership of their own learning. This type of mentoring provides the opportunity for informal political agents to bring their personal interests to the organizational agenda. Transformative learning is promoted at the individual, group, and organizational levels by providing new perspectives and challenging individual and organizational mental models.

From a systemic point of view, this type of mentoring might generate the organizational means for knowledge creation and innovation through the establishment of flexible structures and the allocation of time and resources for critical reflection in action. In this approach, organizational power needs to be shared with individuals and teams in joint efforts to anticipate and adapt more readily to environmental impacts, to better

manage knowledge, utilize technology, empower people, expand learning to better adapt, and stimulate continuous improvement in all areas of the organization to succeed in the changing environment. For transformative learning to happen, a deep commitment from individuals, teams, and the whole organization is required. Mentors as organizational leaders play an important role as political actors facilitating collaborative learning environments.

Revolutionary mentoring (Brockbank & McGill, 2006) helps to facilitate the transmission of power to new actors and the development of new power relationships. An important function of mentors and protégés in this approach is the facilitation of change management and the creation of new organizational contexts defined as "the circumstances, conditions and contributing forces that affect how we connect, interact with, and learn from one another" (Zachary & Daloz, 2000),

The Symbolic Frame

Finally, the symbolic frame spotlights cultures through the examination of the meaning of rituals, ceremonies, stories, heroes, and myths (Bolman & Deal, 1997). According to Zachary (2005), mentoring requires "a culture to support its implementation and fully integrate it into the organization"(p.7). Symbolic forms and activities supporting learning and knowledge sharing, and collaboration provides the means for any mentoring approach's sustainability and viability, and, in the long run, the possibility of the learning organization.

In the organizational context, shared values and beliefs are reflected in distinctive behaviors and patterns. Mentoring contributions to create a learning culture and for successful transformation are crucial. Particularly, the four types of mentoring

approaches examined might contribute at different levels to the implementation of the eight essential steps identified by Marquardt (1995) to build the learning organization:

1. Establishing a strong sense of urgency about becoming a learning organization,
2. Forming a powerful coalition pushing for the learning organization,
3. Creating the vision of the learning organization,
4. Communicating and practicing the vision,
5. Removing obstacles that prevent others from acting on the new vision of a learning organization,
6. Creating short-term wins [and rewards],
7. Consolidating progress achieved and pushing for continued movement, and
8. Anchoring changes in the corporation's culture (p. 211-124).

Mentoring approaches also play an important role in a dualistic and dynamic manner: they serve as means to sustain, engage, evolve, and revolutionize the culture, while requiring it to be embedded in the culture for sustainability. In this sense, mentoring programs and processes foster the belief in the organization's purposes, confidence, and hope of participants, and, at the same time, mentoring approaches need to be cultivated, valued, and rewarded by the organizational culture.

This literature review addressing the origins of mentoring, its importance to organizations, and particular contributions to the creation of the learning organization provides us with a clear vision of the context of the phenomena in study. It allows us to situate adult mentoring in a specific context, differentiating intentional mentoring from

informal mentoring, as well as providing the grounds to understand adult mentoring and to distinguish the population in study from other populations.

Chapter III

Methodology

In this chapter grounded theory and research synthesis methodologies are examined that provided the methodological framework to perform this study. A delimitation of grounded theory and research synthesis as both methodology and method is emphasized and its relation is analyzed. Specific procedures for the development of this study are also explained.

Grounded Theory

Grounded theory is a research style located in the qualitative research school of methodologies in which theory and models are inductively extracted from the analysis of related data. This analysis involves an iterative process to discover concepts and generate explanations of phenomena (Creswell, 1998; Glaser & Strauss, 1967; Strauss & Corbin, 1998). As a methodology, grounded theory shares some attributes with general qualitative methodologies, including the principle that

- Reality is constructed in social settings,
- Context is a direct source of data,
- Results are presented in a descriptive-narrative approach rather than in a numerical form,
- Researchers are concerned with the process rather than only the outcomes,
- It is inductive in nature, meaning is extracted from interpretation of reality, and
- The researcher is also a research instrument (Merriam, 2009).

Two sociologists at the University of California, - Barney Glaser and Anselm Strauss - are considered the first users of grounded theory in the mid-60s, having further developed and structured the technique with the aim of systematically generating a theoretical framework from data. Rather than using the research process to test existing theoretical propositions, theory is developed from an intensive involvement with the experience under study (Merriam, 2009). The end product of this methodology is a plausible relationship among concepts or set of concepts in the form of a narrative statement, a visual picture, or a series of hypotheses or propositions. Even though the work of Strauss and Corbin was developed in the healthcare field, both authors have provided a "research method of comparative analysis for the discovery of theory from data" (Glaser & Strauss, 1967, p. 1).

As a method, the analysis of grounded theory begins as the researcher collects data and creates categories while reviewing until saturation is reached. The participants are theoretically chosen (Creswell, 1998), meaning that the researcher decides what data to collect and where to find it to develop theory as it emerges. Interviews, observations, and a wide variety of documents are the data sources (Merriam, 2009).

Glaser and Strauss (1967) also argued that qualitative data in the form of structural conditions, processes, patterns, and systems is necessary for explaining social occurrences. The details it produces can be presented as an integrated set of propositions or in terms of a typology. Through a constant comparative method, the facts are categorized by identifying similarities and differences for interpretation of the data.

Qualitative methods are particularly appealing for this study due to the focus on gaining insight about a complex social process, while providing a method to address the

intricacy of an emergent field of study. Mentoring is a multi-faceted social phenomenon in which individuals seek understanding of the explicit and tacit organizational rules that will support their success and advancement in the social structure - meaning, individual experiences are negotiated socially, culturally, and historically (Creswell, 1998) to learn and adapt to their environment.

Grounded theory also responds to the contextual nature of mentoring - predominantly the use of interpretive research, which is where qualitative research is most often located, that assumes reality is socially constructed. That is, there is no single, observable reality, rather there are multiple realities or interpretations of a single event (Merriam, 2009). Therefore, this study focused on the analysis of qualitative studies in an attempt to find patterns in the evolution, practice, and interpretation of this experience.

While theorists of grounded theory warn that hypotheses are not set out at the beginning of the study to be tested, a core or central category should be identified as the main conceptual element from where other categories will emerge logically (Merriam, 2009). For the purpose of this study, intentional adult mentoring relationships have been identified as the core or central category.

"Even those who set out to develop a grounded theory do not enter the study with blank minds, with no notion of what to think about or look for" (Merriam, 2009, p. 70). There are two schools of thought in trying to define the mentoring relationship: one implying that mentoring can be designed and created and the second that mentoring can only occur naturally (Haynes & Petrosko, 2009). While informal mentoring relationships are of great value both for the organization and the individuals involved, an intentional approach to mentoring brings to institutions the basis for a learning organization and a

mentoring culture to flourish. In the long term, intentional mentoring increases the opportunities for informal mentoring to happen. Additionally, from the perspective of mentoring as a developmental relationship, this study focused on adult learners, excluding youth mentoring, which requires a much different set of mentoring best practices.

Grounded theory methodology has been chosen for generating a theoretical model of mentoring best practices deriving such theory from qualitative data. Once the variables and categories have been identified, the ultimate outcome of this study was the generation of a set of standards subject to further empirical testing and to create a continuous cycle from positivist to interpretative research that presents multiple perspectives for the advancement of the theory and practice of mentoring.

Research Synthesis

Research synthesis is a set of methodologies used to summarize a large body of information. It is aimed to make sense of diverse findings of multiple studies on a topic or research question, particularly when "research has progressed to the point where scholars must take the time to analyze the existing research in an attempt to find the cement that glues" (DeWitt-Brinks, 1992, p. 5). According to Cooper (2010), it represents an intermediate step in scientific research to build on the efforts of other researchers and to provide an integrated picture of the progress of a particular topic. Trustworthy accounts of the rapid growth of research in the social sciences are critical to assimilate the information being produced for knowledge building.

Similar to grounded theory, research synthesis is considered both a methodology and a method. As a methodology, research synthesis provides the theoretical framework

for a set of procedures attempting to combine the results of studies. In general, as a methodology it attempts to identify "what works and what does not… where little or no relevant research has been done… to flag areas where we think we know more than we do, but where in reality there is little convincing evidence to support our beliefs" (Petticrew & Roberts, 2006, p. 2). Research synthesis is often considered a secondary analysis methodology in the sense that primary studies are re-analyzed. While secondary analysis evolved from the quantitative research traditions, in recent years an interest for re-using data from qualitative studies has grown. In contrast to *quantitative* approaches in which empirical and statistical data is used, *qualitative* secondary analysis works with both naturalistic and non-naturalistic data, such as "observation notes, unstructured interviews and documents [that] can also be useful to re-analyze" (Glaser, 1962, p. 74).

The key principle of research synthesis is that single studies provide limited and, most of the time, contextual information. "Single studies frequently illuminate only one part of a larger explanatory puzzle" (Cook, Cooper, Cordra, Hartmann, Light, Louis, & Mostelle, 1992, p. 3). The importance of context and the explosion in mentoring research adding to both theory and practice provided the foundation for the use of research synthesis methodologies in this study.

Cooper (2010) differenciates between literature reviews – brief and narrow introductions to reports of new primary data - and research synthesis – complex and systematic reviews of empirical and/or theoretical studies, to present a cumulative picture of the state of knowledge for both theory development and practice. Moreover, research synthesis "attempts to discover the consistencies and account for the variability in similar

studies” (Cooper & Hedges, 1994, p. 5). The main differences between these terms that often has been used interchangably reside in the

- Focus,
- Goals,
- Perspective,
- Coverage,
- Organization,
- Intended audience being researched,
- Synthesis of broader scope,
- Addressing multiple themes, topics, or hypothesis, and
- Using a rigorous and systematic approach to provide a cumulative result of the research it covers.

There are two major approaches to research synthesis, the most common is *quantitative meta-analysis* making reference a “process through which statistical methods are used to analyze results from several studies on a given topic, often to determine effect size (Major & Savin-Baden, p. 181). The second approach is *qualitative research synthesis*, often denoted as *systematic review* of qualitative studies or *qualitative meta-analysis,* which refers to the "synthesis of a group of qualitative research findings into one explanatory interpretative end product" (Morse, 1997, p. 32). Qualitative research synthesis encompasses diverse methods such as

- Narrative reviews,
- Best evidence synthesis,
- Meta-study,

- Meta-ethnography,
- Meta-summary, and
- Meta-synthesis.

This study predominately focused on the second approach - qualitative research synthesis.

Sandelowski and Barroso (2007) point out that the *qualitative research synthesis* method "is a process and product of scientific inquiry aimed at systematically reviewing and formally integrating the findings in reports of completed qualitative studies" (p. 17). These authors only include the methods of *qualitative meta-summary* in research synthesis, integrations of findings across reports with a neutral view to discover patterns or themes in qualitative research, and *qualitative meta-synthesis* - the interpretative integration of qualitative findings where outcomes are reframed in the term research synthesis. While meta-summaries are based on synthesizing the verbal conclusions of primary research (DeWitt-Brinks, 1992), qualitative meta-synthesis is interpretive rather than aggregative, and the researcher analyzes textual reports creating new interpretations in the analysis process (Paterson, Thorne, Canam, & Jillings, 2001).

In this study, Sandelowski and Barroso's (2007) definition of research synthesis is used to include meta-summary and meta-synthesis procedures, while differentiating from other qualitative studies of studies. Both procedures are employed at various stages of the research process to reveal an organized framework of the theory and practice of adult mentoring in academic and workplace contexts, as well as to identify the evidence-based adult mentoring best practices.

According to Sandelowski and Barroso (2007), qualitative research synthesis differs from a background review in purpose and methodology. A background review has the purpose of linking selected studies in a chain of reasoning, rather than synthesizing the findings of research studies in a domain of inquiry. In a literature review, the researcher is not obliged to report the search strategies used or the sampling frame for the studies included.

In contrast to the narrative overview, research synthesis is more penetrating in regards to the methods used in a field of study. The difference between quantitative and qualitative research synthesis resides in the mode of interpretation from statistical inference versus case-bound and narrative explanation.

The primary sources of secondary analysis are the raw data from interviews, observation, or other naturalistic data, while research synthesis sources are the findings of primary studies. Qualitative research syntheses have more limited empirical goals but greater immediate utility for practice than other studies of studies, such as meta study described by Sandelowski and Barroso (2007).

In summary, although it has features that overlap with other forms of inquiry, qualitative research synthesis is characterized by the:

1. Systematic and comprehensive retrieval of all of the relevant reports of completed qualitative studies in a target domain of empirical inquiry,
2. Systematic use of qualitative and quantitative methods to analyze these reports,
3. Analytic and interpretive emphasis on the findings in these reports,

4. Systematic and appropriately eclectic use of qualitative methods to integrate the findings in these reports, and
5. The use of reflexive accounting practices to optimize the validity of study procedures and outcomes (Sandelowski & Barroso, 2007, p. 22).

Even though the terms *qualitative research synthesis* and *qualitative meta-analysis* are used interchangeably in the literature, in this study the term *qualitative research synthesis* is preferred to avoid confusion with the quantitative approach, which is commonly referred only as *meta-analysis*.

Grounded Theory and Research Synthesis

Several studies of grounded meta-analysis (a combination of grounded theory and research synthesis methods) have been performed (Hossler & Scalese-Love, 1989; Stall-Meadows, 1998; Yin, 1991). Particularly, Yin proposes that grounded theory and research synthesis share structural characteristics, such as:

- The design to develop theory by identifying categories and themes;
- Emulation of the scientific process by clearly stating research procedures;
- Data collection from the literature, the field, or both; and
- Emphasis in identifying emerging categories.

Both grounded theory and research synthesis have been considered a methodology and a set of research methods (Glaser & Strauss, 1967).

Glasser and Strauss's (1967) approach of grounded theory as a method focuses on two procedures: theoretical sampling and the constant comparative method. For Glaser (1962), theoretical sampling consists of the selection of groups for comparison to generate categories and properties as a mean of checking on the emergence of theory

until theoretical saturation is achieved on a category. The constant comparative method reflects a cyclical process that ensures the analysis is planned in identifying conceptual categories and their conceptual properties, as well as the relations between categories and their properties.

This analytic process complements Sandelowski and Barroso's (2007) approach to research synthesis, which includes:

- Procedures to formulating the purpose and rationale of the study,
- Accommodating qualitative research synthesis studies to available resources,
- Searching for and retrieving qualitative research reports,
- Appraising reports of qualitative studies,
- Classifying the findings in qualitative research reports,
- Synthesizing qualitative findings in meta-summaries and meta-synthesis, and
- Presenting syntheses of qualitative research findings.

Procedures

Cooper (2010) argues that similar to primary research, a qualitative research synthesis involves seven steps:

1. Formulating the problem,
2. Searching the literature,
3. Gathering information from studies,
4. Evaluating the quality of studies,
5. Analyzing and integrating the outcomes of studies,
6. Interpreting the evidence, and
7. Presenting the results.

Conversely, Major and Savin-Baden (2010) emphasized the iterative process of research synthesis and propose an eight step approach that includes:

1. Identifying studies related to a research question,
2. Collating,
3. Examining the theories and methods used in each study in-depth,
4. Comparing and analyzing findings for each study,
5. Synthesizing findings for each study,
6. Undertaking an interpretation of findings across the studies,
7. Presenting an interpretative narrative about the synthesis of findings, and
8. Providing a series of recommendations.

For the purpose of this study, Major and Savin's (2010) approach is followed. Additionally, to make a clearer account of the iterative process of research synthesis, an integration of Sandelowski and Barroso's (2007) model was made by creating a *meta-summary* of each category, the integration of the approximate sum of findings across books and articles reviewed in the form of tables and matrices in search of patterns and themes, and a *meta-synthesis* of reframing findings in a fully integrated description or explanation of topics in an interpretative logic process. A detailed step-by-step procedure follows.

Identifying Literature

A general search in electronic databases was conducted. Web of Science was used as the primary source of articles because this database includes recognized peer reviewed journals in the fields of education, management, psychology, and related fields. Amazon and Google books were reviewed because of the comprehensiveness of materials listed

and the practical availability of publications. Articles were considered, because they provide timely, formal, peer-reviewed dissemination of information, while books typically provide a more thorough treatment of a topic, but each contributes to the overall scholarly network.

A comprehensive literature review was conducted to identify key words "mentor" and "mentoring," as well as associated terms such as "coaching," "advising," "teaching," "tutoring," and "counseling".

A wide-ranged review of abstracts was also performed by limiting searches to materials published from 1978 to 2012 due to the consensus among multiple publications that attribute the beginning of the formal study of mentoring to the inspiring work of Levinson "The Seasons in a Man's Life's" (Levinson, 1978).

Creating a Database for Analysis

Using EndNote bibliographic software, a database of references was created. Through several repetitive processes, the bibliography was reduced to a list of 500 books (Appendix A). The annotated bibliography of 588 articles was created (Appendix B) using EndNote exporting functionalities.

Selection Criteria

After achieving a saturation point determined by the familiarity with authors and publications, 25 books and 80 qualitative studies were selected based on the following criteria:

1. *Seminal:* the publication is considered by others as seminal work in the field.
2. *Authority:* the author has more than a single publication on the topic.
3. *Most cited:* the publication has been quoted by others.

4. *Date of publication:* most recent work has been included.
5. *H-Indices*[1]*:* the publication is listed in the H-Index of a particular discipline area.

Data Collection

Full texts of publications were obtained thorough The University of New Mexico (UNM) library and inter-library loans. When possible, electronic format of the material was obtained.

Coding Process

Data sources were digitalized and imported to the qualitative analysis software QDA Miner. Through iterations of queries, a preliminary exploration of materials was performed to identify initial codes. A code in qualitative inquiry is "most often a word or short phrase that symbolically assigns a summative, salient, essence-capturing, and/or vocative attribute for a portion of language-based or visual data" (Saldaña, 2009, p. 3). Initial coding from "first impression" phrases and "frequency of appearance" was derived in units of data. Iterations of the process produced short excerpts called "nodes." Initial examination of nodes initiated a preliminary taxonomy of analysis. From the previous iterative processes to select the literature and knowledge of the field, the following list of premises was created:

1. *Adult Mentoring* - Key words: *Adult - not youth, children, or adolescent*
2. *Research Areas* - Key words: *Education, business, and psychology*

[1] The H-Index is defined as the number of papers of an individual that have citation count larger than or equal to the h of all coauthors of each paper, as a useful number to characterize the scientific output of a research that takes into account the effect of multiple authorship (Hirsch, 2005). Within a dataset of papers published, the h-index represents the number of most cited authors, compared to the rest of authors in the dataset. The h-Index is only meaningful when compared to others within the same discipline area because researchers in one field may have very different h-indices than researchers in another.

3. *Historical Accounts* - Key words: *Origins, antecedents, history, and evolution*
4. *Definition* - Key words: *Concept, meaning, and denotation*
5. *Theoretical Frameworks* - Key words: *Theory, framework*
6. Benefits - Key words: *Benefit, interest, needs, advantage, value, and importance*
7. Outcomes - *Key words:* Positive outcomes: *achievement, advance, advancement, develop, development, developing, grow, promoting, success, promotion, salary, rank, ranking, power, influence, position, satisfaction, increase, loyalty, permanence, retention;* negative outcomes: *negative relations, bullies, enemies, sabotage, revenge, silent treatment, damage, difficulty, conflict, binds, spoiling, betrayal, regret, delay, fear, anxiety, pitfalls, implications, burdens; embarrass, dependence, exploit, exploitation, fight, humiliate, intrude, isolate, jealousy, punish, rejection, threats*, *aggression, withdraw.*
8. *Functions, Purposes* - Key words: Career advancement – *coaching, challenging assignments, advisement, assist, facilitate, guide, help, mobility, information, sharing ideas, feedback*; psychosocial support – *acceptance and confirmation, self-awareness, confidence, counseling, friendship, stress relief, encouragement, locus of control, motivation, empowerment*; academic development – *teaching, publications, production, tenure, presentations, conference, GPA, grades, retention, learning, instruction*; skills development – *training, professional, professionalism, ropes, technical, performance, learning, information*; sponsorship – *protection, exposure and visibility,*

introduction, nomination, recommendation, opportunities; networking – social networks, professional networks, family, friends, community; role modeling – *model, role model, modeling, observation, imitation, example*

9. *Associated Functions* - Key words: *Teaching, advising, coaching, counseling, role modeling, shadowing*
10. *Processes* - Key words: *Design, development, implementation, evaluation, initiation, maturation, termination, recruitment, selection, matching, training*
11. *Mentoring Modalities* - Key words: *Formal, informal*
12. *Types of Mentoring* - Key words: *Traditional, peer to peer, reverse, group, circle*
13. *Forms* - Key words: *Face to face, virtual (e-mentoring), hybrid*
14. *Settings* - Key words*: Businesses, academic settings, military (army, navy, air force)*
15. *Target Populations* - Key words: *Academic settings:* students –graduate, undergraduate, faculty, staff; business set*tings: employee(s), supervisor(s), executive(s)*
16. *Special Populations* - Key words: *Minority groups:* women, underrepresented, first generation; *ethnic groups:* Hispanic (Latino), African American, Native American, Asian American, Black, people of color
17. *Competences, Standards* - Key words: *Quality, principles, values, characteristics*
18. *Instruments* - Key words: *Inventory, survey, scale*
19. *Best Practices* - Key words: *Performance, effectiveness, efficiency*

The following framework for codification was created:

Figure 2

Framework for Codification

Analysis

Preliminary coding generated basic units of information in the search for patterns characterized by similarity, difference, frequency, sequence, correspondence, and causation. Cross sectional coding of topics was performed in the search of best practices in every category identified. Analytic memos were created during the iterations of this process leading to the formation of categories, themes, and domains towards the development of hierarchical taxonomies. Meta-data was created per category.

A constant comparative method (Glaser & Strauss, 1967) for theory building was performed in four stages by:

1. Comparing incidents applicable to each category,
2. Integrating categories and their properties,
3. Delimiting the theory, and
4. Writing the theory.

"The constant comparison of observed incidents may then accumulate knowledge pertaining to a property of the category and resulting in a unified or integrated category. Integrated categories and their properties will then approach the emergence of a theory" (Chen, 2005, p. 63).

Two main products resulted from this study: a methodological and systematic historical account of the evolution of the field of mentoring in the form of a descriptive report of the literature (meta-summaries) and a taxonomy of mentoring best practices for the creation and maintenance of exemplary formal adult mentoring programs (meta-synthesis).

Overview of the Literature

An overview of the literature examined served as an early exploration and validation of key issues to be analyzed and provided a synopsis of the researcher's decisions in selecting and collecting the data investigated.

This study examined aggregated data from 588 articles in adult mentoring and a bibliography of 500 for a general overview of the literature. Out of this data set, 25 books and 80 articles were selected on the basis of impact on the field measured by the number of citations of a publication for a deeper examination. The literature was selected assuming that:

- The number of citations reflects the use of a document,
- More citations imply quality,
- Significance or impact of the publication, and
- Citing authors selected the publication from the best possible works on the topic (Vucovich, Baker, & Smith, 2008).

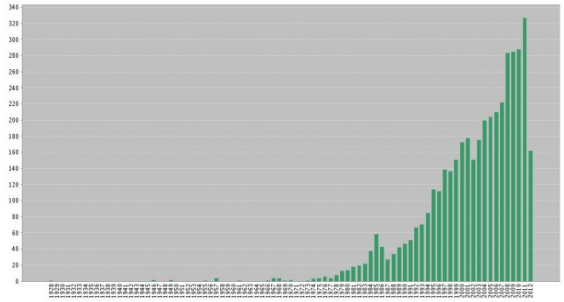
To avoid some limitations of this selecting method, such as possible citations pointing out errors or inaccuracies in the research, erroneous citations, and skewed data due to journal visibility and prestige, the set of selected publications was complemented with additional data to include not only articles but books considered by others as seminal work, publications from authors considered as authority on the topic (measured by the number of publications in the field), and the date of publication to include most recent work, which have not been cited as much as older publications. A wide-range review of abstracts was performed limiting searches to materials published from 1978 to 2012 due to the consensus among multiple publications that attribute the beginning of the formal

study of mentoring to the seminal work of Levinson “The Seasons in a Man’s Life’s” (1978).

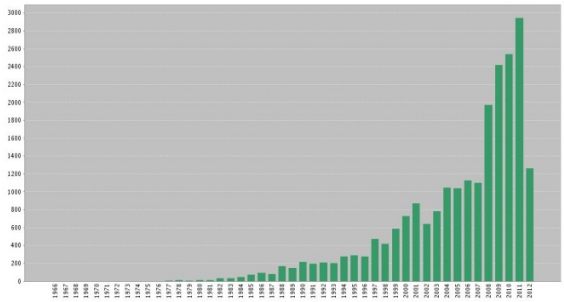
Adult Mentoring Literature in Education, Business & Psychology

Figure 3

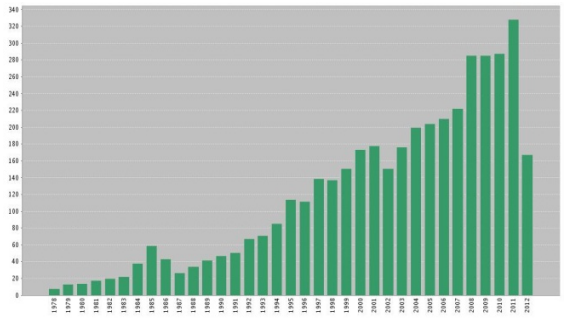
Meta-Data: Adult Mentoring Literature



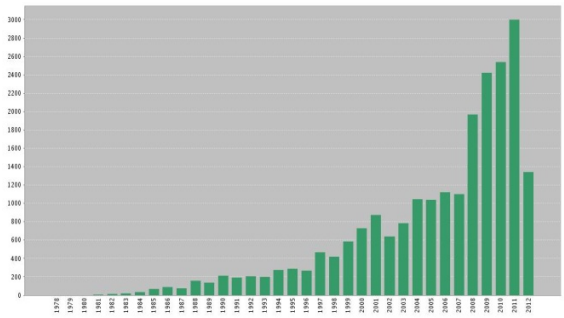
By Publication Year 1900-2012



By Citation Year 1900-2012



By Publication Year 1978-2012



By Citation Year 1978-2012

Results: 4,213 Articles			
Sum of the Times Cited:	22,497	Citing Articles:	9,102
Sum of Times Cited without Self-Citations:	11,786	Citing Articles without Self-Citations:	7,686
Average Citations per Item:	5.34	H-Index:	59
Top Three Authors		Top Three Research Areas	
Allen, T.	0.71%	Educational Research	17.3%
Eby, L.	0.52%	Psychology	13.0%
Scandura, T.	0.47%	Business	6.8%

An initial exploration of the mentoring literature in the Web of Science produced 9,156 articles, with 4,213 publications specifically in adult mentoring from 1978 to 2012. Meta-data in the adult mentoring literature corroborates that publications in the field have

grown exponentially since 1978. Only 41 articles on the topic were found from 1900 to 1977, while thousands of adult mentoring articles have been published in the last 35 years with more than 300 articles published in 2011 alone.

This also corroborates multiple authors' assertions that 1978 marked the beginning of a new area in adult mentoring research. In 1978 Levinson's seminal work was printed among eight additional articles published in recognized journals such as *Harvard Business Review* and the *Sloan Management Review* (Shapiro, Haseltine, & Rowe, 1978). The following year, 13 more articles addressed the topic in the business context, and one of the most cited empirical studies in adult mentoring was developed (Roche, 1979).

In the 1980s, more than 300 articles were published, including the initial works in the educational field (Bolton, 1980) showing an increase in the number of publications in the psychology field, with the business area leading research on the topic. The following decade, almost a thousand articles on adult mentoring were published. A great amount of anecdotal accounts, personal stories, and empirical studies converged in this decade. The first literature review was published in 1983 addressing mentoring general concepts (Merriam), while the reviews in the 90s were more specific, concentrating on particular topics or populations (Jacobi, 1991).

The new millennium brought an exponential growth in the field. There have been 2,858 articles published in the last 12 years representing 68% of the total literature analyzed - 1.89 times the total amount of literature published in adult mentoring in the previous century. The proliferation of mentoring programs and the analysis of their benefits and outcomes have prevailed in the literature.

Out of the 4,213 articles identified in adult mentoring, the H-Index analysis showed 59 publications as the most relevant ones within the data set. The top three cited articles are:

1. The Phases of the Mentor Relationship by Kathy Kram (1983), professor of Organizational Behavior at Boston University - 289 citations;
2. Mentoring Alternatives by Kathy Kram and Lynn A. Isabella (1985), an associate professor in Management at the University of Virginia - 250 citations; and
3. Mentoring : An Investigation of the Determinants of Successful Assigned Mentoring Relationships by Raymond Noe (1988), professor of Management and Human Resources at Ohio State University - 237 citations.

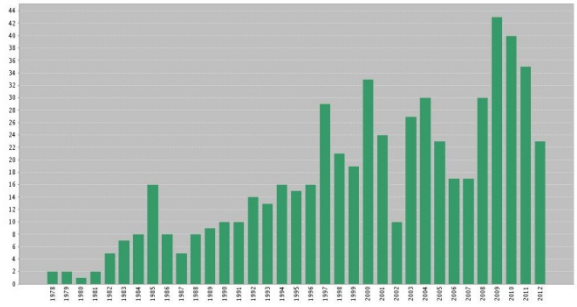
Additionally, the most prolific authors in the field are:

- Tammy D. Allen, Professor of Industrial and Organizational Psychology at the University of South Florida - 30 articles published (0.712%);
- Lillian Eby, professor in the Department of Psychology at the University of Georgia - 22 articles (0.522%), and
- Terry Scandura, Professor of Management at the University of Miami - 20 articles (0.475%).

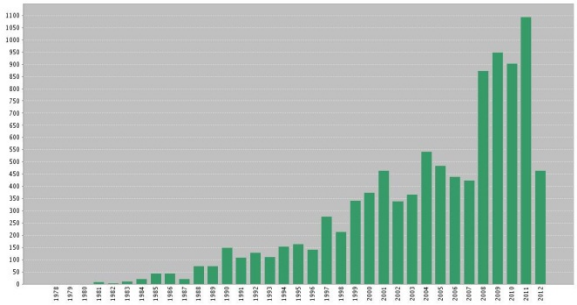
In the overall account, publications in educational research (17.3%) and psychology (13.0%) outnumbered the business (6.8%) research area, contrary to the popular perception that most of the mentoring literature is coming from the business field, although most of the empirical investigations developed in the psychology area have been performed in the workplace.

Figure 4

Metadata: Adult Mentoring Literature in Education, Business & Psychology



By Publication Year 1978-2012



By Citation Year 1978-2012

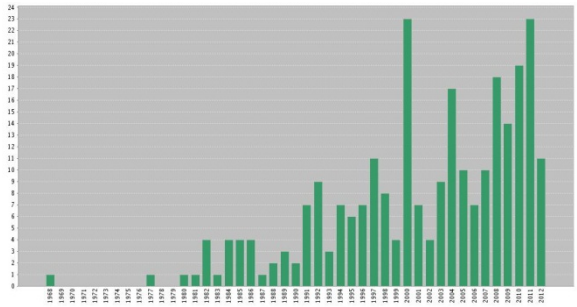
Results: 588 Articles			
Sum of the Times Cited:	9,778	Citing Articles:	3,524
Sum of Times Cited without Self-Citations:	7,018	Citing Articles without Self-Citations:	3,132
Average Citations per Item:	16.63	H-Index:	47
Top Three Authors		Top Three Research Areas	
Allen, T.	3.6%	Educational Research	44.6%
Eby, L.	2.0%	Applied Psychology	33.5%
Scandura, T.	2.0%	Management	15.3%

While narrowing the literature to the fields of research interest – education, business and psychology, the picture is not much different. Although 12 articles were removed from the list of the most relevant articles, the 47 remaining were included in the first data iteration. The top three cited articles and the top three authors remained the same. As well, the number of publications in educational research outnumbered those in psychology and management. Publications by year also followed similar patterns with 60% of the literature being produced in this century.

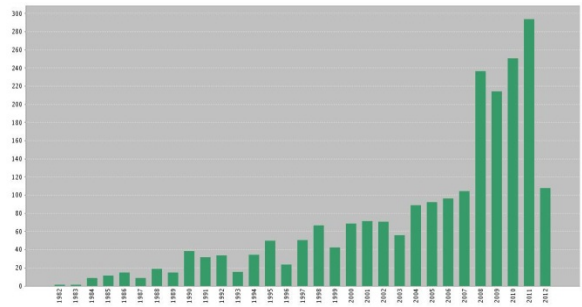
As predicted by Hirsh (2005), a comparison by research field shows differences in the author's relative impact in the literature as measured by the H-Indices, corroborating that citation behaviors vary from one field to another.

Figure 5

Meta-Data: Adult Mentoring Literature in Education



By Publication Year 1978-2012



By Citation Year 1978-2012

Results: 263 Articles			
Sum of the Times Cited:	2,232	Citing Articles:	1,349
Sum of Times Cited without Self-Citations:	1,803	Citing Articles without Self-Citations:	1,216
Average Citations per Item:	8.49	H-Index:	22
Top Three Authors		Top Three Research Areas	
Bergen, T.	1.9%	Educational Research	99.6%
Brouwer, N.	1.9%	Educational Scientific Disciplines	4.2%
Crasborn, F.	1.9%	Applied Psychology	4.2%

In the educational field 263 articles were identified; the top cited articles are:

1. What Are the Effects of Induction and Mentoring on Beginning Teacher Turnover? by Smith (2004) - 120 citations;
2. Mentors and Protégés by Merriam (1983) - 102 citations; and,
3. Student Views of Mentors in "Psychology Graduate Training, by Cronanhillix, Gensheimer, Cronanhillix, and Davidson (1986) - 63 citations.

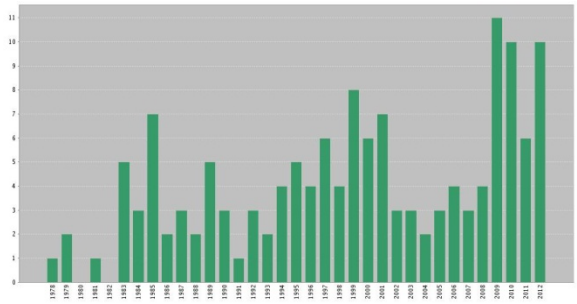
The most prolific authors in the field are Bergen, Brower, Crasborn, Hennissen, and Korthagen with five published articles each.

Most of the literature pertains to the educational research area, and a consistent growth in the literature was observed with picks in literary production in 2000 and 2011

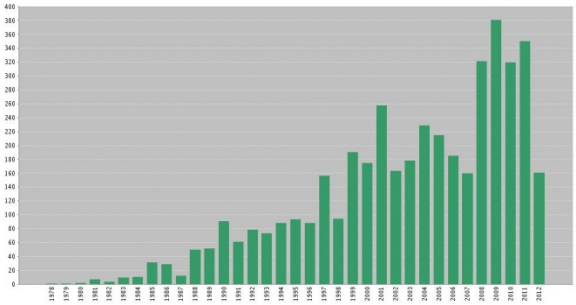
with 23 articles published. Twenty-two articles account for the most influential works in this area based on the H-Index analysis.

Figure 6

Meta-Data: Adult Mentoring Literature in Business



By Publication Year 1978-2012



By Citation Year 1978-2012

Results: 143 Articles			
Sum of the Times Cited:	4,334	Citing Articles:	1,758
Sum of Times Cited without Self-Citations:	3,806	Citing Articles without Self-Citations:	1,659
Average Citations per Item:	30.31	H-Index:	33
Top Three Authors		Top Three Research Areas	
Allen, T.	4.9%	Management	62.9%
Kram, K.	4.2%	Applied Psychology	48.3%
Dreher, G.	4.2%	Business	44.1%

In the business research area, 143 articles were identified, the top three being the most cited:

1. The Phases of the Mentor Relationship by Kathy Kram (1983),
2. Mentoring Alternatives by Kathy Kram and Lynn A. Isabella (1985), and
3. An Investigation of the Determinants of Successful Assigned Mentoring Relationships by Raymond Noe (1988).

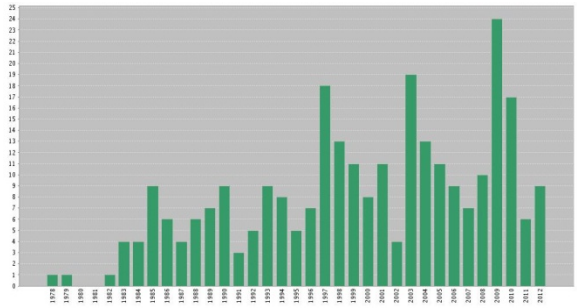
These articles accounted for 289, 250, and 237 citations respectively, representing the most cited works not only in the business area but in the adult mentoring field overall. The most prolific authors in the field are:

- Allen - seven publications,
- Dreher – six publications,
- Kram – six publications, and
- Scandura - six publications.

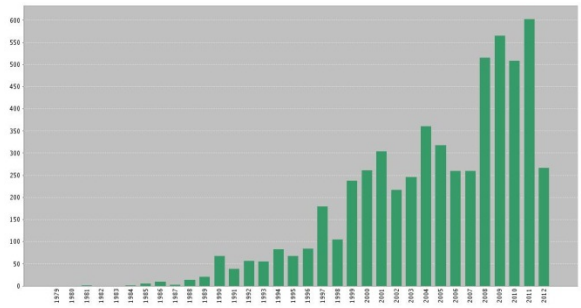
Publications are heavier in the management research area followed closely by publications in Applied Psychology and Business. Eleven articles were published in 2009, the most prolific year in the business area. Thirty-three articles are the most influential publications based on the H-Index analysis.

Figure 7

Meta-Data: Adult Mentoring Literature in Psychology



By Publication Year 1978-2012



By Citation Year 1978-2012

Results: 279 Articles			
Sum of the Times Cited:	5,739	Citing Articles:	1,987
Sum of Times Cited without Self-Citations:	4,333	Citing Articles without Self-Citations:	1,787
Average Citations per Item:	20.57	H-Index:	41
Top Three Authors		Top Three Research Areas	
Allen, T.	7.6%	Applied Psychology	70.6%
Eby, T.	4.3%	Management	20.1%
Ragins, B.	3.2%	Multi-Disciplinary Psychology	12.5%

In the Psychology field, 279 articles were identified. The most cited articles are:

1. An Investigation of the Determinants of Successful Assigned Mentoring Relationships by Noe (1988) - 237 citations,

2. A Comparative Study of Mentoring among Men and Women in Managerial, Professional, and Technical Positions by Dreher and Ash (1990) - 233 citations, and
3. Mentoring Phases and Outcomes by Chao (1997) - 212 citations.

The most prolific authors in psychology are:

- Allen - 21 publications,
- Eby - 12 publications,
- Ragins – 9 publications, and
- Scandura - 9 publications.

The majority of research was performed in Applied Psychology. The most prolific year was 2009 with 24 articles published. Forty-one articles account for the most relative impact in the field based on the H-Index analysis.

The following sections will provide a general overview and meta-data of the adult mentoring literature based on the 588 articles identified. A more specific analysis will follow based on data from the subset of analysis composed by the 25 books selected and the 80 most influential works in adult mentoring (Appendix C) identified using the H-Index as criteria for selection in the fields of Education (22 articles), Business (33 articles), and Psychology (41 articles), which intersect as follows:

Figure 8

Literature Intersections by Research Area

Antecedents and Conceptualization of the Mentoring Phenomena

This chapter provides detailed information of the two main procedures of grounded theory applied by the researcher:

1. The theoretical sampling process in selecting groups for comparison to generate categories and properties until saturation is achieved in a category, and
2. Evidence of the cyclical process in the constant comparative method, ensuring that the analysis is planned in identifying conceptual categories and their conceptual properties, as well as the relations among categories and their properties.

Chapter IV

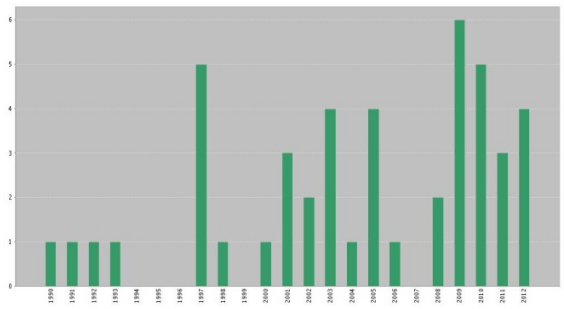
Data Analysis and Results

Following is an evaluation of the foundations of mentoring, a review of historical accounts of mentoring, and the analysis of definitions providing the foundations for the conceptualization of adult mentoring.

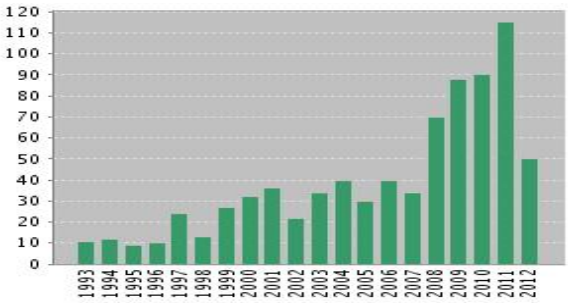
Antecedents

Figure 9

Meta-Data: Adult Mentoring Literature – Historical



By Publication Year 1978-2012



By Citation Year 1978-2012

Results: 46 Articles			
Sum of the Times Cited:	788	Citing Articles:	541
Sum of Times Cited without Self-Citations:	737	Citing Articles without Self-Citations:	514
Average Citations per Item:	17.13	H-Index:	13
Top Three Authors		Top Three Research Areas	
Allen, T.	8.7%	Applied Psychology	54.3%
Eby, L.	6.5%	Management	26.1%
Blickle, G.	4.3%	Educational Research	17.4%

The results of the exploration of historical accounts in the adult mentoring literature were disappointing. Only 46 articles mentioned various historical accounts in regards to the origins of mentoring. Most merely alluded to Homer's tale *The Odyssey* as the origin of the word mentor and jumped to cite the work of Levinson (1978) as the beginning of mentoring in the modern literature. Even though many articles referred to

the apprenticeship model as antecedent of the modern concept of mentoring (Jones & Vincent, 2010; Mullen, 2000), no further exploration of the characteristics and principles of apprenticeships were related to the mentoring schema. In the subset of data analyzed, the same pattern was repeated. Only a few articles briefly mentioned the origin of the word mentor, and a handful made reference to the apprenticeship model (Bolton, 1980; Ragins & McFarlin, 1990; Wildman, Magliaro, Niles, & Niles, 1992).

Even though published books provided a more extensive narrative on the origins of mentoring paraphrasing Homer's tale, only brief references to the influence of historical accounts were made. For example, Zachary and Fischler (2009) mentioned that the description of the relationship between Mentor and Telemachus sets mentoring apart from other learning relationships. They claimed that a teacher or a coach helps us to learn or practice a set of skills, while the focus of a mentor is to act as a guide helping the mentee to understand his/her own goals and how to pursue them successfully.

Levinson (1978) refers to the apprenticeship model as appropriate to address concerns of mastery in a scientific discipline. Clutterbuck (2004) mentions the medieval concept of apprenticeship, its relationship with mentoring, the elitist process of selecting protégés, and the apprenticeship model in which the mentor acts as master. As well, he makes reference to the linguistic and syntactic origin of the word mentor to define a mentor as one who makes another think and a mentee as someone who is instigated to think. Both Clutterbuck (2004) and Garvey, Megginson, and Stokes (2007) refer to the Socratic method of dialogue as a useful technique for mentoring and coaching functions.

Additionally, Stone (2007) makes a brief account of the apprenticeship model through the ages and states that it has been replaced with vocational training and the role

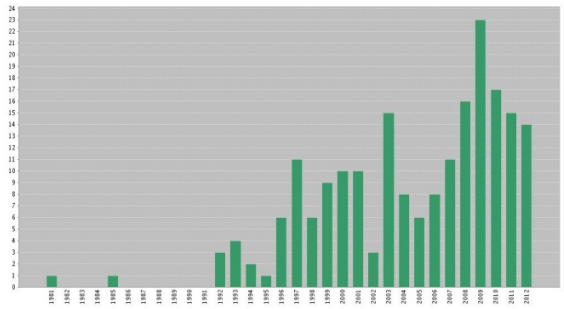
of mentors in organizations. As well, Johnson (2007a) describes the relationship of faculty-student as “a useful and career-enhancing academic apprenticeship” (p. 194), while Mullen (2000) refers to the model as a hierarchical arrangement of mentoring that in the past occurred in conjunction with formal schooling.

Campbell (2007) recommends the combination of a modified apprenticeship model that incorporates vertical integration of research teams as best practices for student-faculty mentoring program; however, it does not provide data to validate the effectiveness of this model. A further study on the influence of the apprenticeship model is recommended (Ragins & McFarlin, 1990).

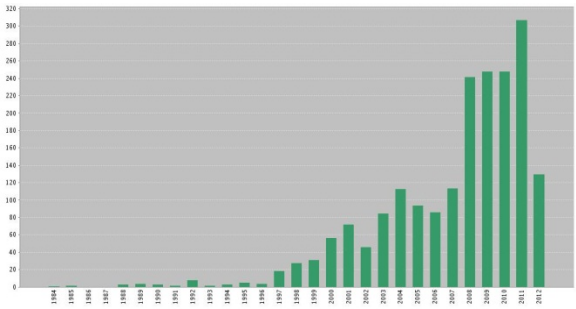
Definition

Figure 10

Meta-Data: Adult Mentoring Literature - Definitions



By Publication Year 1978-2012



By Citation Year 1978-2012

Results: 41 Articles			
Sum of the Times Cited:	383	Citing Articles:	307
Sum of Times Cited without Self-Citations:	373	Citing Articles without Self-Citations:	298
Average Citations per Item:	9.34	H-Index:	12
Top Three Authors		Top Three Research Areas	
Eby, T.	4.9%	Educational Research	34.1%
Colley, H.	4.9%	Applied Psychology	31.7%
		Management	22.0%

In the general database of adult mentoring, 41 articles were identified addressing the overall problem of conceptualizing mentoring. Multiple authors have claimed that the failure to provide an operational definition of mentoring is preventing the evolution of mentoring research (Crosby, 1999; Eby, Rhodes, & Allen, 2007; Jacobi, 1991; Merriam, 1983; Mertz, 2004). Due to the importance of this issue, the whole database of 588 articles was reviewed to identify mentoring definitions. Out of this set, 467 articles (79%) included a mentoring definition or made reference to another author's definition, something totally unexpected due to the previous assertion.

The most cited definition, as expected from the number of citations of her work, is Kram's (1983) with 267 citations:

> [mentoring] implies a relationship between a young adult and an older, more experienced adult that helps the younger individual learn to navigate in the adult world and the world of work. A mentor supports, guides, and counsels the young adult as he or she accomplishes this important task (p. 2).

The second most cited definition is Levinson's (1978), also a seminal work in the field of adult mentoring, with 126 citations:

> The mentor relationship is one of the most complex and developmentally important a man can have in early adulthood. The mentor is ordinarily several years older, a person of greater experience and seniority in the world the young man is entering… Words such as 'counselor' or 'guru' suggest the more subtle meanings, but they have other connotations that would be misleading. The term 'mentor' is generally used in a much narrower sense to mean teacher, adviser or sponsor. As we use the term, it means all these things and more… He [the mentor] may act as a teacher to enhance the young man's skills and intellectual development. Serving as sponsor, he may use his influence to facilitate the young man's entry and advancement. He may be a host and guide, welcoming the initiate into a new occupational and social world and acquainting him with its values, customs, resources, and cast of characters. Through his own virtues, achievements, and way of living, the mentor may be an exemplar that the protégé can admire and seek to emulate. He may provide counsel and moral support in times of stress (p. 98-99).

Problems arise in comparing studies when scholars focus on the different qualifiers, the degree of psychosocial vs. career support provided, and/or the specific functions/activities provided by mentors (Eby, Rhodes, & Allen, 2007). Despite these issues, many authors agree that there are common elements to define mentoring. Eby, Rhodes, and Allen identify:

- The uniqueness of the relationship;
- The learning partnership as a means to acquire knowledge;
- The mentoring process defined by the types of support provided;
- The asymmetrical reciprocity; and
- The dynamic, changing nature of mentoring as the core elements.

For Johnson, Rose, and Schlosser (2007), the core elements include:

- The enduring, personal aspects of the relationship,
- The reciprocity and mutuality,
- The contributing aspect of the mentor,
- The focus on career assistance,
- The provision of social and emotional support,
- The modeling role of the mentor,
- The transformation of the protégé as the main outcome,
- The provision of safe environments for exploration, and
- The condition to produce positive career and personal outcomes.

Spencer (2007) simplifies the core elements, based on DuBois and Karcher's work, to three aspects:

- The greater experience of the mentor,

- The guidance and instruction required to promote the protégé's development, and
- The trusting emotional bond between participants.

Apparently, previous warnings from researchers (Jacobi, 1991; Merriam, 1983) encouraged writers to provide some sort of definition. Still, Johnson, Rose, and Schlosser (2007) noticed that researchers are using "disparate definitions of the mentorship construct and the boundaries between mentoring and other relationship forms are poorly articulated. Such definitional dysfunction in the mentoring literature has led to confusion and questions about the cumulative value of this research" (p. 50).

However, the analysis of nearly 500 definitions shows clear patterns to delineate the mentoring construct. In general, most definitions contain three or more elements of the structure shown in Figure 11.

Figure 11

Definition Structure

As an example, the following definition of mentoring provided by Shea (1994) shows five of the structural elements mentioned:

> A developmental, caring, sharing, and helping relationship where one person invests time, know-how, and effort in enhancing another person's growth, knowledge, and skills, and responds to critical needs in the life of that person in ways that prepares the individual for greater productivity or achievement in the future (p. 13).

This definition includes a set of qualifiers describing the attributes the author assigns to his/her definition:

- Developmental, caring, sharing, and helping;
- A defining word focusing on a relationship;
- The participants in the relationship, in this case generic to a person or individual;
- A set of outcomes: enhancement, greater productivity or achievement; and
- Functions or activities: growth, knowledge, and skills.

Even though this definition does not provide clarity in regards to the functions of the mentor, those can be inferred from the qualifiers provided at the beginning of the definition.

Table 1 shows the frequency to which each structural element was mentioned in the dataset analyzed.

From the data collected, we can conclude that most authors agree that mentoring:

- Is personal, developmental, reciprocal, and dynamic in nature;
- Might be helping, nurturing, supportive, caring, intense, sharing, and complex or include any other qualifier in regards to the degree of emotional involvement (relational) or instrumental purposes:
- Is a relationship;
- Implies a process to achieve positive outcomes; and
- Engagement in mentoring activities or functions are the means to achieve the outcomes.

Table 1

Structural Elements of Adult Mentoring Definitions

Qualifier(s)	***f***	**Participant(s)**	***f***	**Definition Word(s)**	***f***	**Function(s)**	***f***
Personal	146	*Mentor:*	416	Relationship	306	Professional	202
Reciprocal/Mutual	58	More experienced	89	Process	102	Career	166
Developmental	48	Senior	83	Exchange	8	Role Model	59
Dynamic	31	Older	31	Partnership	6	Skills	51
Helping	27	Guide	53	Journey	6	Psychosocial	33
Nurturing	24	Sponsor	10	Strategy	3	Emotional	22
Supportive	24	Teacher	46	Alliance	2	Academic	17
Caring	20	Counselor	17	Connection	2	Sponsorship	9
Intense	19	Peer	13	Experience	1	Networking	8
Sharing	18	Advisor	12			Instructional	5
Complex	12	Coach	11				
Interactive	6	Personal Friend	6				
Instructional	8	Teacher/Guide	3				
Voluntary	4	Advisor/Counselor	3				
Trusting	4	*Protégé:*	216	**Outcome(s)**	***f***	**Activity(ies)**	***f***
Confidential	4	*Mentee:*	115	Development	253	Support	226
Relational	3	Less Experienced	108	Learning	84	Guide	95
Collaborative	2	Junior	66	Growth	76	Help	88
Instrumental	2	Younger	49	Promotion	51	Counsel	79
Situational	2	Novice	23	Achievement	34	Model	75
Multidimensional	2	New	6	Advancement	19	Assist	56
Professional	2	*Population:*		Enhancement	19	Teach	50
Nonsexual	2	Manager	96	Foster	9	Encourage	36
Asymmetrical	1	Teacher	46	Leadership	6	Advise	30
Transformational	1	Student	40	Effectiveness	4	Coach	28
Multifaceted	1	Faculty	34	Acquisition	3	Facilitate	23
Purposeful	1	Employee	20	Retention	1	Learn	18
Respectful	1	Graduate	10	Satisfaction	1	Share	17
Apprenticeship	1	Colleagues	6	Acceleration	1	Influence	16
Non-parental	1	Supervisor	6			Practice	14
Extended	1	Staff	5			Understand	13
Extensive	1	Undergraduate	3			Sponsor	11
Respectful	1	Professional	2			Feedback	11
Equal	1	Apprentice	1			Friendship	8
Hierarchical	1					Create	5

Some researchers ponder the risks between defining or not defining the mentoring construct in empirical studies (Johnson, Rose, & Schloser, 2007; Scandura & Pellegrini, 2007; Spencer, 2007). Johnson et al. (2007) emphasize that some researchers avoid

defining the construct leaving to participants the freedom to include their own perspective. This approach leads to the risk of studying different phenomena in a single study. On the other hand, over defining the construct generates the risk of limiting the possibility of discovering new elements in the research. Despite the risks, Johnson et al. agree that researchers must provide a definition to clarify the type of relationship they are studying and to avoid idiosyncratic interpretations (Johnson, 2007a), but trying to limit the risks of too ambiguous or definitions that are too constrained prevents the generalization of the studies.

Many authors also agree that major defining problems appear when the definition does not provide enough elements to separate mentoring from other developmental relationships. Kram (1985) proposes a model to distinguish developmental relationships in the workplace by evaluating the degree of career support vs. the degree of psychosocial support provided. Lankau, Carlson, and Nielson (2006) add to this schema the differentiation of developmental relationships in the workplace based on the instrumental or relational purposes of the learning context and their ability to develop cognitive social capital, relational social capital, leadership development, or diversity competence.

Eby, Rhodes, and Allen (2007) differentiate developmental relationships based on the participants in the relationship. In their model, they analyze relationships among mentor-protégé, role model-observer, supervisor-subordinate, and coach-client in the workplace and teacher-student, advisor-advisee in academic settings. They segregate these interpersonal relationships in terms of

- The primary scope of influence,

- The degree of mutuality,
- The formality or informality of the relationship,
- The relational closeness,
- The required interaction, and
- The power distance among participants.

While this model provides a great detail in differentiating relationships, it fails to account for emerging functions in academic settings, such as academic coaching or incorporating the teaching/instructional functions in the workplace.

Cuttlerbuck (2007) distinguishes the American from the European perspective of mentoring, stating that the European model is developmental and non-directive in nature, while the American sponsorship functions add a directedness component. He also distinguishes mentoring from coaching in terms of the focus on performance or career goals. He proposes a cross matrix of the differences generating four types of developmental relationships in the workplace:

1. Sponsorship mentoring (directive-career oriented),
2. Developmental mentoring (nondirective-career oriented),
3. Executive/developmental coaching (nondirective-performance oriented), and
4. Traditional coaching (directive-performance oriented).

By extending Kram's model (1985), incorporating the European developmental perspective on mentoring (Clutterbuck, 2007) by separating the sponsorship and networking functions from Kram's career functions, adding Eby, Rhodes, and Allen's (2007) academic roles, and Lankau and Scandura's instrumental vs. relational learning

outcomes (2007), the following schema is proposed to differentiate mentoring from other developmental relationships, both in the workplace and in academic settings.

Table 2

Developmental Relationships Matrix

Role /Functions	Instrumental Functions			Relational Functions	
	Career Support	Skills Development	Modeling	Psychosocial Support	Sponsorship & Networking
Mentor	High	High	High	High	High
Teacher/Faculty	High	High	High	Low	Low
Sponsor	High	Low	Low	Low	High
Coach	High	High	Low	Low	Low
Advisor	High	Low	Low	Low	Low
Tutor	Low	High	Low	Low	Low
Counselor	Low	Low	Low	High	Low
Friend	Low	Low	Low	High	Low
Ally	Low	Low	Low	Low	Low

It is important to note that these functions vary in activities depending on the context. Some authors differentiate mentoring from other developmental relationships in terms of the length of the relationship. It appears to be a general consensus that mentoring implies a longer period of time to flourish than other developmental relationships.

Particularly, Fletcher and Ragins (2007) provide a model to separate mentoring behaviors from other developmental relationships. These authors incorporate to the adult mentoring literature the concept of mentoring episodes to describe short-term developmental interactions:

> In essence, although all mentoring relationships involve mentoring episodes, individuals can engage in mentoring episodes without being in mentoring relationships. Moreover, the concept of men to ring episodes

> captures the dynamic and fluid nature of relationships (Boyatzis, 1994) and may provide insight into how some relationships are transformed into mentoring relationships. For example, an increase in men to ring episodes may create a 'tipping point' in which members come to view their work relationship as a mentoring relationship (p. 381).

This concept provides clarity to multiple questions regarding mentoring functions and mentoring roles. From this perspective, it might be concluded that some professional roles, both in the workplace and in academic settings, are more suitable to growth into mentoring relationships. For example, it explains the existence of some relationships that despite different arguments against their true mentoring nature are identified as mentoring by the participants (e.g. supervisor-employee relationships) or why some professional roles in academic settings, such as teachers, faculty, advisors, and tutors, are prone to grow mentoring relationships with a few of their students, advisees, or pupils. By adding the idea that a continuum in the number and quality of mentoring episodes might develop into full mentoring relationships with all its benefits and positive outcomes, these authors provided hope for individuals and organizations to truly reach human potential.

This investigation brought attention to a lack of revisions of historical accounts in empirical research proposing a further analysis of mentoring antecedents to increase our understanding of the apprenticeship model and its relation with modern mentoring theories, lessons learned, and transference to improve formal mentoring programs.

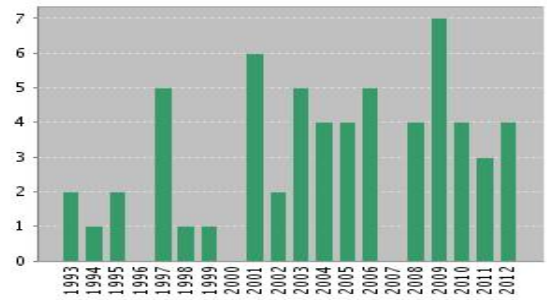
In addition, a review of 467 definitions in mentoring was performed to identify and propose a model to conceptualize mentoring. A set of structural elements in the definition of mentoring is provided for researchers to compare and contrast mentoring approaches in empirical research projects.

Theoretical Frameworks in Adult Mentoring

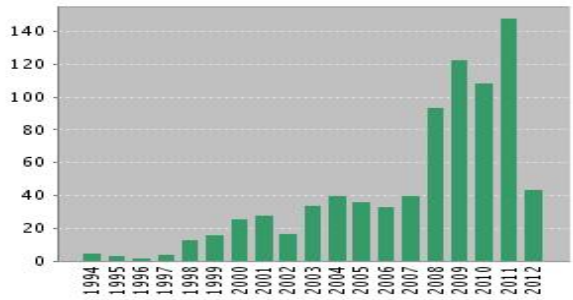
The following information provides a revision of the theories and models that have increased our understanding of adult mentoring relationships.

Figure 12

Meta-Data: Adult Mentoring Literature – Theoretical Frameworks



By Publication Year 1978-2012



By Citation Year 1978-2012

Results: 62 Articles			
Sum of the Times Cited:	815	Citing Articles:	581
Sum of Times Cited without Self-Citations:	773	Citing Articles without Self-Citations:	555
Average Citations per Item:	13.5	H-Index:	18
Top Three Authors		Top Three Research Areas	
Eby, T.	8.1%	Applied Psychology	43.6%
Ragins, B.	8.1%	Educational Research	38.7%
Allen, L.	3.2%	Management	12.9%

The experiences of mentoring have been studied in multiple disciplines using a variety of models as a framework of reference. In examining the large database of 588 articles, 62 documents focused on the theoretical aspects of mentoring. Out of this data, 18 articles are considered the most influential works based on the H-Index analysis.

The top cited articles are:

1. Mentoring and Organizational Justice: An Empirical Investigation by Scandura (1997) - 52 citations,

2. Antecedents of Diversified Mentoring Relationships by Ragins (1997) - 48 citations, and
3. New Directions for Mentoring Research: An Examination of Related Constructs by McManus & Russell (1997) - 46 citations

The most prolific authors addressing theoretical constructs are Eby, Ragins, and Allen - authors with a very solid experience in empirical research. A great majority of articles belong to Applied Psychology followed by Management and Multi-Disciplinary Psychology.

In the analysis of the selected literature of 25 books and 80 articles, 43 articles and the 25 books (64.75% of the literature analyzed) provided some sort of theoretical framework or made reference to a theory to explain mentoring and/or one or more aspects of the mentoring phenomena. Table 3 lists the different theories used to explain mentoring.

Learning Theories

Many authors have considered mentoring as a learning partnership (Allen, Cobb, & Danger, 2003; Clutterbuck, 1998; Lankau & Scandura, 2002; Zachary & Daloz, 2000). Therefore, it is understandable that learning theories have been used to explain mentoring relationships as a phenomenon and/or to enhance parts of the mentoring process.

Adult Learning Theory, and particularly Andragogy, defined as the study of how adults learn, has contributed to our understanding of the learning process of adults in mentoring relationships. From this theory, we know that the adult learner is more self-directed, has a great deal of past experiences to draw on for learning, learns new social

roles from role models, approaches learning with a purpose in mind, and has internal motivators for learning (Marquardt & Waddill, 2004; Merriam, 2001).

Table 3

Theoretical Frameworks in Adult Mentoring

Theory	*f*	No. Cases	Theory	*f*	No. Cases
Developmental Theories			**Social Theories**		
Adult Development	244	25	Organizational Socialization	791	49
Career Stage	163	13	Social Support	633	40
Life-Stage	111	19	Human / Social Capital	163	14
Career Decision Making	22	6	Social Exchange	78	13
Development Theory	26	9	Nomological Network	56	14
Psychosocial Development	17	4	Social Identity	47	7
Learning Theories			Interactional	39	11
Social Learning	149	22	Relational Demography	31	11
Constructivist	66	6	Social Networks	24	10
Adult Learning Theory	45	7	Social Role	23	6
Social Cognitive	13	4	Contingency	21	11
Transformational	11	6	Situated Cognition	14	4
Cognitive Apprenticeship	9	6	Social Cognitive	13	4
Situated Learning	2	2	Social Comparison	13	3
Psychology Theories			Communitarian	8	3
Reflection	178	27	Communities of Practice	7	4
Dialogue	123	20	**Organizational Theories**		
Self-Efficacy	96	17	Organizational Citizenship	305	19
Attachment	71	11	HR Management	180	26
Attribution	44	11	Organizational Learning	71	15
Similarity-Attraction	28	4	Change Agents	9	3
Emotional Intelligence	19	9	Organizational Support	3	2
Expectancy	19	5	Positioning	3	2
Reasoned Action	16	5	**Leadership Theories**		
Symbolic Action	12	7	Leader-Member Exchange	353	23
Identity Development	4	2	Educational Leadership	59	10
Self-Help	2	1	Transformational Leadership	1	1

Mentoring adults is a learner-focused process in that adults are more pro-active in defining what their goals in the mentoring relationship are and can largely carry out tasks and assignments on their own. Mentors provide support and guidance and can share their

experiences with the mentee to help them understand how to navigate their organizational/social role, while becoming aware of their own learning styles, how they develop over time, and practical ways to locate supporting resources (Zachary & Daloz, 2000).

Zachary and Fischler (2009) claims that our knowledge about adult learning has provided a shift in the mentoring paradigm from the traditional authority figure of the mentor to a facilitator role where both mentor and mentee engage in a learning process and gain together greater understandings. Facilitators, therefore, must establish a climate conducive to learning by involving learners in planning how and what they will learn. As well, she proposes that formal mentoring initiatives must consider adult learning needs in their design (Zachary, 2005).

Of particular importance is the concept of Self-Directed Learning. Ideally, a primary goal for mentors is assisting and encouraging learners in such a way that they will become confident in taking control of their own learning process. Mentors may start with showing mentees organizational processes step-by-step, but eventually they want their mentees to be able to work autonomously, set personal learning objectives, develop strategies, find recourses, and evaluate their own learning. While the responsibility is shared in the mentoring relationship, accepting ownership and accountability provide the means for the development of autonomy, which is essential to advance in the organization and to develop personally and professionally in a continuous process of acquiring mastery and becoming life-long learners (Daloz, 1999).

For behaviorist theories, significant learning is observed through change in behaviors, taking into account that the environment influences learning and behavior and

that repetition and reinforcement affect learning behaviors. In the workplace, the success of a mentoring relationship is usually measured by change in salary, promotions, or new competencies acquired. In academic settings, positive outcomes of mentoring relationships result in higher GPAs, retention and graduation rates of students, as well as production and tenure achievement for faculty members. How conducive/supportive of mentoring the environment is will influence how well and how much a mentee will learn/progress. In this perspective, mentors model desired behaviors and competencies through the performance of their job and interaction with the mentee, as well as providing feedback and rewards for the mentee's performance (pointing out/praising successes and correcting/discussing failures/deficiencies).

Cognitivist theories place emphasis on brain and memory functions. The way the brain works to make sense of the inputs it receives and translates them into understandable knowledge is important to learning. As well, how the brain stores information and past experiences aids in determining future behavior (e.g. the brain processes/categorizes past experiences/inputs for the individual to understand what works and what doesn't). Mentors must adapt their practice/teaching based on the mentee and how s/he learns. Mentors discuss past experiences with mentees and guide them to make connections between actions that produced desired results and those that didn't and work to create goals that are suitable to the mentee.

Constructivist theories establish that we create knowledge from our experiences, and then we base our actions on that knowledge. Learning occurs when we compare our experiences of the world to our past knowledge base and re-evaluate/reconstruct our knowledge as a consequence. Mentoring encourages reflective practice (critical

reflection) in order to point out/understand successes and failures so that mentees can learn from past experiences, develop self-awareness, and alter their behavior in the future.

One practical application of learning theories in mentoring relationships is the use of learning styles inventories to facilitate the learning process and sometimes even as criteria for the matching process between mentors and mentees. Myer-Briggs and Kolb' s inventories are mentioned in the literature, particularly Kolb's model of experiential learning blends cognitive and constructivist theories to describe how experience is translated into concepts and how it is used to guide the decision making process. Kolb's learning styles inventory works around four dimensions: experience/abstraction and reflections/experimentation to create a typology of learning preferences. Program managers or facilitators who are aware of preferred learning styles could then customize education and training activities to specific learning needs in a mentoring program (Zachary, 2005).

In mentoring relationships, the use of action learning (a form of experiential learning) has led to new forms of mentoring such as group, team, or circle mentoring approaches. Under the concept that learning by doing and dialogue produce both personal and organizational learning, mentoring approaches in which mentors and mentees are involved in a continuous process of action-reflection-action, critical reflection, and double-loop-learning bring solutions to existing problems and are examples of effective processes of integration of mentor-mentee-institutional outcomes (Zachary, 2005).

As a concept, Transformative Learning is "the process of affecting change in a frame of reference" (Mezirov, 1997, p. 5). Specifically, Transformative Learning Theory

(TLT) assumes that adults have developed, through their life experiences, a whole body of frames of reference and points of view. Frames of reference are constructed by two elements:

1. Habits of mind: the habitual ways of thinking, feeling, and acting; and
2. Points of view: beliefs, judgments, attitudes, and feelings that shape the interpretation of a particular situation.

TLT, based on developmental learning theories, agrees that most of adults' frames of reference have been uncritically acquired as conditioned responses and as the result of cultural assimilation.

According to Mezirov (1997), transformative learning occurs when adults critically explore their assumptions by engaging in task-oriented problem solving (objective reframing) or self-reflection to assess their own ideas and beliefs (subjective reframing) that lead to the growth of changes in points of view (meaning schemes transformations) and/or a transformation of a habit of mind (perspective transformation, a world view shift). In this sense, transformative learning can occur either as a result of an acute personal or social crisis (disorienting dilemma) or through a series of cumulative transformed meaning schemes (p. 7-9).

In mentoring relationships, the process of critical reflection and dialogue are assumed to be transformational in nature (Daloz, 1999; Mullen & Noe, 1999; Clutterbuck, 2004) whether it is through the engagement in a mutual process to cope with disorienting dilemmas or throughout the accumulation of changing schemes – a product of the interaction of mentors and mentees. According to Zachary (2005),

> A cycle begins as learners become aware of their existing assumptions. Learner self-awareness converts to self-understanding as people begin to challenge existing assumptions. The learning that results from increased understanding enables learners to let go of the self-limiting and unrealistic assumptions holding them back and transform their thinking into new and more productive action and behavior (p. 225).

Out of all the learning theories, Social Learning Theory (also Social Cognitive Theory) has been the most explored in mentoring research. This theory, created by Bandura in 1977, explains how people learn through modeling/imitation. Clutterbuck (2004) asserts that "an individual's holistic development is generally acquired through a combination of social learning processes, wider social interactions, and reflection over time" (p. 165). This theory provides insight into the role modeling functions of mentors, which, for Scandura (19972), represent a separate role from the career development functions established by Kram (1983).

Through continuous interaction, a mentor sets behaviors for newcomers into the organizational life. As a first contact in induction mentoring programs, both in workplace and academic settings, the mentor provides the novice with observable patterns of acceptable behaviors in the organization. In this socialization process, the mentee defines the social context to establish productive and rewarding interactions by adopting attitudes accepted in the system. A mentor models not only conventional behaviors but also desirable competencies and skills in an acculturation process. "It is also a non-conscious process when the mentor may be unaware of setting an example for the protégé, and the protégé may be unaware of tacit knowledge gained from the mentorship" (Chao, 2007, in Ragins, 1996, p. 183).

Social learning also explains the identification process between mentor and mentee, essential for building a relationship. When affinity is discovered, the mentoring duo or group has a ground base for professional socialization, the acquisition of competences, and appropriate professional behaviors in a learning partnership.

Associated with social learning, Vygotsky's Theory of Proximal Development provides the mentors with a set of strategies to promote mentees' learning. Through a scaffolding process, mentors assign tasks, provide information, motivate, give feedback, challenge, and offer confirmation to their mentees in a process to develop the mentee's identity, competencies, confidence, and self-efficacy (Bearman, Blake-Beard, Hunt & Cosby 2007, p. 183). "Through acceptance and confirmation from the mentor, the protégé feels free to experiment with new behaviors and take risks in achieving his or her goals" (Ramaswami & Dreher, 2007, p. 219). As an extension of the scaffolding process, theory of cognitive apprenticeship was mentioned as an analogy to mentoring relationships among faculty and students (Johnson, 2007), but none of the authors provided a description of the theory and/or its relationship with adult mentoring.

Developmental Theories

One of the most cited developmental theories is Levinson's stages model, also known as Career Stage or Life Stage Theory. Based on Freud, Jung, and Erikson's developmental theories, Levinson (1978) defines two key periods in men's life cycle: a stable period in which a person makes important decisions in life and a transitional period in which a person changes life commitments and beliefs. Through a succession of stable and transitional periods, a male travels across defined life structural, not biological, stages into adulthood:

1. Early Adult Transition (17-22) - a person leaves adolescences and makes preliminary choices for adult life;
2. Entering the Adult World (22-28) - the individual makes initial choices in love, occupation, friendship, values, lifestyle;
3. Age 30 Transition (28-33) - characterized by changes or reaffirmation of life structures, either as a moderate change or, more often, as a severe and stressful crisis;
4. Settling Down (33-40) - an individual establishes a niche in society, progresses in both family and career accomplishments as part of a community;
5. Mid-life Transition (40-45) - life structure comes into question, usually a time of crisis in the meaning, direction, and value of each person's life;
6. Entering Middle Adulthood (45-50) - choices must be made, a new life structure is formed based on satisfactions or regrets, the person must commit to new tasks;
7. Age 50 - transition is similar to Age 30 transition. It could be a smooth or disruptive change, depending in a personal sense of accomplishment and satisfactions with previous choices;
8. Culmination of Middle Adulthood (55-60) - a period of great fulfillment for those able to rejuvenate themselves;
9. Late Adult Transition - creates the bases for the era to come – a period of significant development, awareness of death, and involvement in leaving a legacy;

10. Late Adulthood - a man spends time reflecting on past achievements and regrets, and making peace with himself and others.

Most of the subsequent work on mentoring has been built on Levinson's theory. Mentoring has been seen as the practical means to support people in career and adulthood transitions. Kram's (1983) theory of mentoring phases takes into account Levinson's career stages to define the role of mentors and protégés.

In Mentoring at Work, Kram (1983) establishes that many mentoring relationships have the potential for being complementary based on individuals' career stages, competencies, and potential. For example, mentors might be more effective when they are at an age and career stage characterized by the desire to meet generative needs and to teach others, while mentoring relationships might be more difficult if the mentee is looking to satisfy similar needs. For Kram, the variations in mentoring relationships are related to the career stage and the developmental tasks needed at each stage. "While the primary functions of each type of relationship do not change, the content of what is discussed and how that content is shared differs at successive career stages" (p. 143). Kram concludes that organizations should "encourage contact among individuals who have the potential to meet important relationship [and professional] needs at a particular career stage" (p. 180).

Many other authors have used the previous framework to understand mentoring relationships. Most of them agree that mentoring relationships vary in regards to career stages (Lankau, Scandura, & Allen, 2007). A trend that has also been studied in regards to the age and career stage is the willingness to mentor. However, researchers have not

found evidence to support the influence of age and career stage in a disposition to mentor others (Allen, 2007).

In addition to Levinson's Constructive Developmental Theory, (Kegan, 1982, 1994; Kegan & Lahey, 2001) is a model of adult development based on the idea that human beings naturally progress over a lifetime through five stages. The first two stages comprehend childhood and adolescence, while stage three, the socialized mind - *dependence*, marks the transition into adulthood in which individuals recognize others' points of view, are able to empathize with others but avoid conflict for fear of losing their esteem. Stage Four, the self-authoring mind – *independence* - marks the development of value systems, views about the world, sense of responsibility, self-esteem, and ownership in constructing one's own life. In Stage Five, the self-transforming mind – *interdependence,* individuals are able to delineate the limits of their own value systems, are able to deal with ambiguities and perceive polarities, are more concerned with larger systems, and have developed resilience and humility to move beyond ego.

Kegan's recent work (McGowan, Stone, & Kegan, 2007) recognizes that development cannot be attributed only to the passing of time but to an active process of constructing reality through alternative periods of stability and change situated in particular environments. According to Kegan (1982), *confirmation* – acknowledgement of the self and affirmation, *contradiction* - challenging the self, and *continuity* – periods in which the self remains firmly in place, are essential elements for learning and change. For mentoring relationships to succeed, mentors and mentees must be aware of their own developmental stage, particularly in regards to the group understanding of what actually constitutes support and challenge.

Each stage demands different competencies from the mentor and the development of different activities. While protégés in Stage Three might expect a career mentor to be an authority in his/her field and take a guiding role, protégés in Stage Four might prefer a mentor able to question their deeply held beliefs to grow and learn, whereas mentees in Stage Five might prefer a mentor able to play the role of a senior ally. In Stage Three, the mentor confirms the mutuality of the relationship, contradicts by resisting the fusion and demands of self–authorization, and provides continuity by offering elements of both confirmation and contradiction. In Stage Four, the mentor confirms the value of a protégé's sense of independence and self-authorization, provides contradiction by challenging a singular ideology and encouraging contemplation of alternative perspective, and continuity by providing confirmation and contradiction of the protégé's current meaning-making system. In Stage Five, the mentor confirms the capacity for interdependence and the integrity of the person undergoing anxiety and turmoil, contradiction by challenging the protégé to explore personal dilemmas and to value contradictions, and continuity by providing contradiction and confirmation to the protégé's current meaning-making system (McGowan, Stone, & Kegan, 2007).

Social Theories

Mentoring has long been considered as a socialization strategy in organizations, both in academic and workplace settings. Based on the idea that mentors play an important role in the acculturation process of newcomers, socialization theories have focused in understanding the role of mentors as key agents in providing information and role modeling behaviors to facilitate a protégé's learning and adjustment to the new

environment (Allen, McManus, & Russell, 1999; Ostroff & Kozlowski, 1993; Chao, 2007).

Successful socialization has been associated with benefits similar to mentoring outcomes, such as career advancement and satisfaction in the workplace, and with retention and higher grades and graduation rates in academic settings. According to Chao (2007),

> People were better socialized into their organizational roles when they learned about (a) performance proficiency, or learning to perform the job successfully; (b) specific language related to organizational acronyms and jargon; (c) relationships and how to get along with other organizational members; (d) power structures and organizational politics; (e) organizational goals and values, and (f) the history of their specific organizational units as well as general organizational history (p. 181).

Many authors have reported positive socialization outcomes of participants in mentoring relationships, such as greater sense of belonging to the organization, a better understanding of tacit and implicit organizational rules and practices, connectedness, less stress, and commitment (Kram, 1983; Kram & Hall, 1989; Clutterbuck & Megginson, 1999; Johnson, 2002, 2007; Johnson & Ridley, 2008). Role modeling and transmission of information have been identified as the mentoring contributions to socialization processes. However, successful organizational socialization is dependable on the protégés "choices of role models and the quality of observations and interactions with these models" (Chao, 2007, p. 184), as well as individual socialization needs (Scandura & Prellegrini, 2007).

The socialization process has also been studied from the perspective of gender, sexual orientation, and race in organizations. Most research in this area has focused on diversity issues and stereotypes of roles that constitute a barrier for minorities to advance

into the organizational culture. Despite the number of articles published in this area, most researchers acknowledge the need for further studies in regards to the influence of mentors in alleviating diversity issues (Johnson, 2002; Clutterbuck, 2000; Ragins, 1997).

Another area of study has been the contribution of mentoring in the creation of human and social capital and, in a dialectic process, how mentor's human capital contributes to the reproduction of human capital variables, such as level of education (Ramaswami & Dreher, 1989; Stone, 2004; Megginson, 2006; Zachary, 2005; Garvey, 2007). According to Ramaswami and Dreher (1989), mentoring relationships not only have clear outcomes in the generation of human capital but represents a mentoring function. For relationships, human capital "deals with the acquisition of knowledge, skills, and abilities that ultimately enhance the protégé's job performance" (p. 215). Human capital is therefore generated in mentoring relations through multiple activities or functions, such as providing challenging assignments, sponsorship, exposure and visibility, coaching, protection, and friendship. Interaction between mentors and mentees create individual cognitive and affective responses, which are translated into behavioral responses that subsequently produce individual and organizational outcomes.

Ramaswami and Dreher (2007) extend their model to related constructs, such as:

- Movement capital,
- Social and political capital,
- Path-goal and values clarity, and
- Identifying a set of potential moderators of the mentoring outcomes: mentor knowledge, mentor training and development skills, motivation

and opportunity to mentor, and the degree of formality vs. informality of the relationship.

In addition to social support theories, mentoring has been associated with social exchange theories, which explain cost-benefit as a motivator to participate in a relationship. This theory also suggests that positive outcomes for the participants in a mentoring relationship are correlated to higher performance, retention, and more supportive attitudes towards organizational policies (Blau, 1964). In general, this theory describes a reciprocity process between members of an organization and the organization itself. If the individual perceives support to his/her own development of skills, feels valued by the organization, and foresees career opportunities, then, in return, the individual will increase performance, develop loyalty, and remain committed to the achievement of organizational goals (Dougherty, Turban & Haggard, 2007).

As well, participants will enter into relationships in which rewards will outweigh the costs. Therefore, social exchange has also been used to explain the natural process of the informal mentoring relationship (Ragins & Scandura, 1999). These relationships are believed to be of greater value to the mentee, since they are developed through the analysis of mentor-mentee potential and explain the selection process of mentors and mentees based on the possession of valued characteristics of the two people (Allen, 2007).

As an extension of social exchange theories, leader-member exchange theory explains how leaders use position power and access to organizational resources as a transactional strategy to achieve organizational results and the differentiation that leaders make among followers (Scandura & Schriesheim, 1994). Many researchers question the

true nature of mentoring relationships among supervisor-subordinate members due to the contractual and positional aspects of the relationship. However, from the perspective of leader-member exchange theory, those relationships based in trust, mutual respect, and support might be described by its members as mentoring relationships (Godshalk & Sosik, 2007). While high quality exchanges among supervisor-subordinate(s) might be identified with mentoring functions, Scandura and Pellegrine (2007) differentiate leader-member exchanges as transactional, whether mentoring relationships are transformational. Debate continues among researchers on this topic, and more empirical research in this area is needed.

Derived from socialization, social support, and social exchange theories, multiple research articles have focused on investigating the nature, amount, and quality of social support provided by mentors (Young & Perrewe, 2000). The content of the information offered by the mentor and the mentor competencies (career stage, position in the organizations, power and influence, etc.) are likely to influence the socialization process. This leads to the idea that a single mentor might not be able to satisfy all developmental needs of a protégé and that protégés might choose to acquire information and model their behaviors from multiple sources (Chao, 2007; Ragins & Kram, 2007). Therefore, Kram (1983) suggested the establishment of a constellation of mentoring relationships and more recently has introduced the idea of developmental mentoring networks (Higgins & Kram, 2001).

Using social network theory, Higgins and Kram (2001) define a developmental network as "the set of people a protégé names as taking an active interest in and action to advance the protégé's career by providing developmental assistance… [through] two

types of support: (1) career support, such as exposure and visibility, sponsorship, and protection, and (2) psychosocial support, such as friendship, counseling, acceptance and confirmation, and sharing beyond work" (p. 268). According to Higgins and Kram, the greater the diversity of the network in terms of range (number of different social systems) and density (connectedness of members of the network), and the relationship strength, measured by the frequency of communication and level of emotional engagement, the greater the personal learning, the organizational commitment, and work satisfaction. Similar to other research areas, these authors suggest the development of empirical research projects to validate their propositions with diverse populations, a variety of settings, and implications for the design of formal mentoring programs.

According to Godshalk and Sosik (2007), theoretical frameworks provide pathways for researchers to build upon knowledge that can be advanced in a verifiable manner. They are not theories but rather blueprints of what is currently known about relationships among constructs that define a field (p. 168).

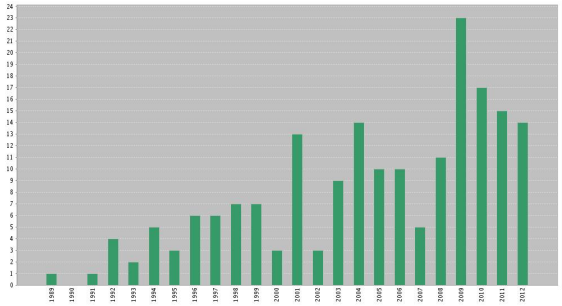
Several frameworks for mentoring research have been examined. Using data mining techniques, learning, developmental, and social theories have been identified as the most frequent concepts to explain adult mentoring. This revision contributes to the overall mentoring theory by providing the theoretical foundation for future empirical work employing an overarching framework to extend our understanding of new forms of mentoring relationships, while taking into account the context and characteristics of participants, for the development of the field of adult mentoring.

Benefits and Outcomes of Adult Mentoring Relationships

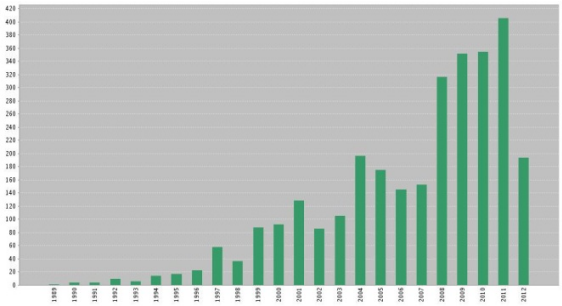
One of the most explored topics in mentoring research is related to the benefits and outcomes of mentoring relationships.

Figure 13

Meta-Data: Adult Mentoring Literature – Benefits and Outcomes



By Publication Year 1978-2012



By Citation Year 1978-2012

Results: 426 Articles			
Sum of the Times Cited:	4,139	Citing Articles:	1,873
Sum of Times Cited without Self-Citations:	3,222	Citing Articles without Self-Citations:	1,708
Average Citations per Item:	17.46	H-Index:	35
Top Three Authors		Top Three Research Areas	
Allen, T.	7.6%	Applied Psychology	47.7%
Eby, L.	4.6%	Educational Research	28.7%
Scandura, T.	4.2%	Management	24.1%

In the large database analyzed, 426 articles were identified addressing the topic, with 35 articles representing the most influential literature based on the H-Index analysis. Uncountable authors have mentioned the benefits and positive outcomes of establishing mentoring relationship for the mentor, the mentee, and the organization, deriving in multiple empirical studies to measure the impact of mentoring relationships, both in academic environments and workplace settings. Effects of participating in mentoring relations are of great importance, first as a motivator for participation and second as the

rationale for organizations to invest in and promote the establishment of informal relationships and formal mentoring programs.

In this area of study, the top cited articles are:

1. Formal and Informal Mentorships: A Comparison on Mentoring Functions, and Contrast with Non-Mentored Counterparts by Chao, Walz, and Gardner (1992) – 212 citations;
2. Marginal Mentoring: The Effects of Type of Mentor, Quality of Relationship, and Program Design on Work and Career Attitudes by Ragins, Cotton, and Miller (2000) – 144 citations;
3. Race, Gender, and Opportunity: A Study of Compensation Attainment and the Establishment of Mentoring Relationships by Dreher and Cox (1996) – 144 citations.

Allen, Eby, and Scandura are the most prolific authors of empirical studies with 18, 11, and 10 articles respectively on the topic. The majority of articles have been developed in the research area of Applied Psychology.

The success of a mentoring relationship is contingent on a number of factors that shape its nature, purpose and outcomes. Kathy Kram (1983) situated mentoring within a theoretical framework and stimulated countless studies and research into causes and effects of mentoring. She outlined the two basic branches of mentoring in workplace settings – career and psychosocial. The two have different roots and outcomes, with career predicting success in compensation and advancement and psychosocial leading to increased satisfaction with the mentor-mentee relationship (and therefore heightened potential to have high quality outcomes). These outcomes have been tested profusely,

being the only area of adult mentoring research where a quantitative meta-analysis study has been performed (Allen, Finkelstein, & Poteet, 2009).

Allen et al. (2004) meta-analysis studied protégés' objective (compensation) and subjective career outcomes (career satisfaction, expectations of advancement, career commitment, job satisfaction, and intention to stay). Their research analyzed 43 studies that compared outcomes across protégées and non-protégés and those that correlate mentor functions with protégé outcomes. They found support to general claims associated with the benefits of mentoring, with the caveat of small effect associated with objective career outcomes.

Multiple studies, in addition to the 43 analyzed in Allen's meta-analysis, have focused not only on the positive career outcomes for the protégé but also the psychosocial benefits of mentoring (Chao, 1997; Dreher & Ash, 1990; Fagenson, 1989; Kirchmeyer, 1998; Koberg, Boss, Chappell, & Ringer, 1994), and less studied, the benefits for the mentor (Wanber, Welsh & Kammeyer-Mueller,2007; Eby, Butts, Durley & Ragins, 2010).

Despite differences in methodologies, such as cross sectional and self-report studies, the literature associates positive outcomes to establishing mentoring relationships both for the mentor and the mentee. Particularly, Ramaswami and Dreher (2007) have extensively studied benefits for the mentor, such as satisfaction, performance, leadership development, and career success, finding consensus in favor of the positive outcomes for this population.

Progress in our understanding of mentoring relationships has brought a great number of outcomes cited and studied. Table 4 shows the most cited benefits and

outcomes for the mentor, the mentee, and the organization, both in academic and workplace settings, differentiating specific benefits and outcomes for academic settings.

Table 4

Benefits and Outcomes of Mentoring Relationships

MENTOR OUTCOMES			MENTEE OUTCOMES		
	f	CASES		*f*	CASES
Learning	7014	67	Learning	6937	67
Commitment	1113	55	Support	4091	84
Satisfaction	857	59	Skills	2225	59
Confidence	704	45	Knowledge	1820	66
Promotion	443	45	Information	1586	80
Recognition	321	37	Success	1393	64
Turnover	307	31	Opportunities	1236	66
Job Satisfaction	197	31	Opportunity	1125	60
Salary	158	32	Commitment	1101	55
Self-Efficacy	154	14	Satisfaction	857	59
Counsel	115	25	Perspectives	633	49
Job Performance	105	21	Advancement	619	46
Loyalty	92	26	Attitudes	565	52
Personal Relationships	89	14	Confidence	544	39
Generativity	84	19	Promotion	443	45
Affirmation	78	14	Career Success	377	37
New Knowledge	47	14	Recognition	324	37
Leadership Skills	44	14	Turnover	313	31
Gratification	25	8	Visibility	291	36
Networking Skills	14	6	Options	286	29
Technical Support	13	6	Abilities	249	36
Managerial Skills	9	7	Encouragement	233	36
Affective Commitment	8	4	Exposure	220	36
Loyal Base of Support	6	2	Job Satisfaction	197	31
Rewarding Experience	6	4	Alternatives	168	38
Turnover Intention	6	3	Compensation	165	28
Opportunity for Reflection	5	3	Self-Confidence	160	33
Revitalization	5	3	Attainment	146	27
Personal Relationships	5	1	Income	107	18
Supportive Networking	4	2	Job Performance	105	21
Organization Recognition	3	2	Reflective Space	85	11
Scheduling Difficulties	3	2	New Learning	77	16
Organizational Retention	2	1	Fulfilling	61	24
Support Within the Organization	2	1	Alienation	45	12
ORGANIZATIONAL OUTCOMES			Leadership Skills	44	14
Commitment	1100	55	Enjoyment	42	13
Socialization	436	41	Reassurance	32	15
Productivity	257	32	Inspiration	30	11
Management Development	82	19	Job Involvement	27	7
Succession Planning	47	14	Balancing Work &Family	16	6
Improved Performance	25	15	Emotional Needs	15	6

Reduced Turnover	11	7	Moral Support	14	10
Enhanced Communication	8	5	Networking Skills	14	6
Enhancing Diversity	2	2	Intention To Mentor	13	3
Enhanced Socialization	1	1	Intention To Stay	12	3
Increased Organizational Learning	1	1	Salary Growth	10	3
Increased Revenue	1	1	Personal Fulfillment	8	5
Talent and Leadership Development	1	1	Rewarding Experience	6	4
BENEFITS AND OUTCOMES SPECIFIC TO ACADEMIC SETTINGS					
MENTORED STUDENTS			**MENTORED FACULTY**		
	f	**CASES**		***f***	**CA SES**
Academic Support	4	3	Tenure	211	33
Timely Completion	4	4	Publication	191	30
Academic Advice	3	2	Scholarly Productivity	15	3
Academic Enrichment	2	1			
Dissertation Success	2	2			
Higher Grades	1	1			
More Credit Hours	1	1			

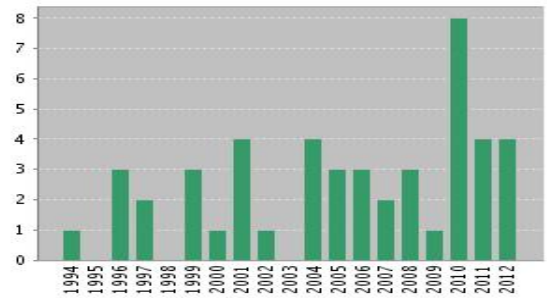
Despite all the evidence in favor of mentoring, researchers warn us about making causal conclusions due to many methodological issues in existing studies; for example, lack of consistency in the definition of the mentoring construct, lack of agreement in the conceptualization of formal vs. informal mentoring, differences in the goals and objectives among programs, and differences among the phenomena in study, such as validation of behavioral, affective, and/or relational benefits (Lockwood, Evans & Eby, 2007). Longitudinal studies rather than retrospective studies, as well as focus in differentiating qualitative aspects of the mentoring relations, have been cited as strategies to alleviate these issues (Johnson, 2010).

Very little research has been performed in regards to the benefits for the organization (Siebert, 1999; Richard, Taylor, Barnett & Nesbit, 2002), and the existing one has heavily focused on subjective outcomes such as commitment and socialization, with lower focus on objective outcomes such as productivity, performance, and return on investment. However, there is a general perception of the positive benefits associated

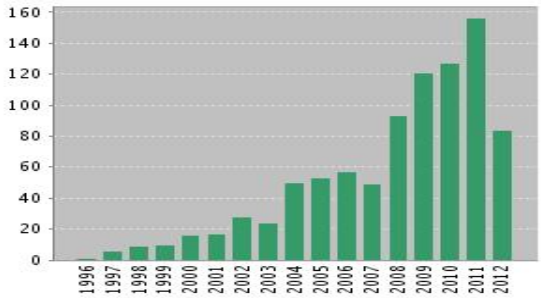
with mentoring that has resulted in the proliferation of formal mentoring programs in academic and workplace settings alike.

Figure 14

Meta-Data: Adult Mentoring Literature – Positive Outcomes



By Publication Year 1978-2012



By Citation Year 1978-2012

Results: 47 Articles			
Sum of the Times Cited:	901	Citing Articles:	708
Sum of Times Cited without Self-Citations:	856	Citing Articles without Self-Citations:	683
Average Citations per Item:	19.17	H-Index:	18
Top Three Authors		Top Three Research Areas	
Allen, T.	6.4%	Applied Psychology	53.2%
Scandura, T.	6.4%	Educational Research	25.5%
Bozionelos, N.	4.3%	Management	23.4%

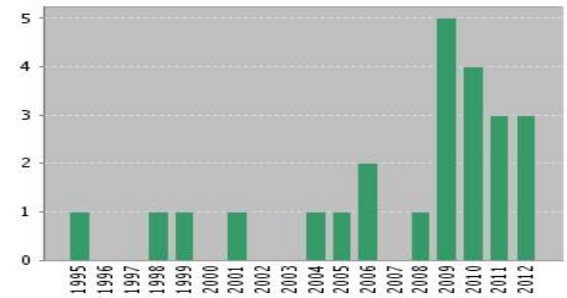
Benefits in academic settings are somehow differentiated from those in workplace settings. Johnson (Johnson, W. & Nelson, N., 1999; 1999, 2002, 2007, 2009) has focused his research on academic settings identifying particular outcomes for academia, such as scholarly productivity, professional confidence, identity development, and tenure attainment for faculty, and higher GPA's, retention, and graduation rates for students (2007). As well, he notices the prevalence of empirical research in student-faculty mentoring for graduate students and lesser focus on undergraduate populations, while the mentor's perspective has been neglected. Johnson also analyses factors that influence the degree or quality of mentoring outcomes, such as group mentoring vs. one-to-one, formal

vs. informal mentoring, gender, race, and aptitude in both the mentor and the mentee. He suggested attention to the methodological rigor and the development of longitudinal studies and evaluation of mentorships from multiple perspectives with greater focus on the benefits for the mentor and the institutions.

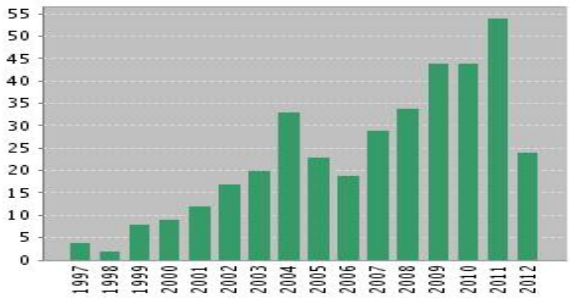
Of less interest to researchers has been the evaluation of negative outcomes in a mentoring relationship. Apparently, Merriam's (1983) assertion in regards to the biases on favor of the experiences is still prevalent. Eby, Allen, and Scandura are the authors addressing dysfunctional mentoring relationships. Only eight articles were identified addressing this topic.

Figure 15

Meta-Data: Adult Mentoring Literature – Negative Outcomes



By Publication Year 1978-2012



By Citation Year 1978-2012

Results: 24 Articles			
Sum of the Times Cited:	376	Citing Articles:	329
Sum of Times Cited without Self-Citations:	358	Citing Articles without Self-Citations:	317
Average Citations per Item:	15.67	H-Index:	8
Top Three Authors		Top Three Research Areas	
Eby, L.	16.7%	Applied Psychology	55.6%
Allen, T.	11.1%	Management	22.2%
Scandura, T.	5.5%	Business	16.7%

For Scandura and Pellegrini (2010), there are two different types of negative experiences: marginal mentoring relationships in which the negative experiences reduce

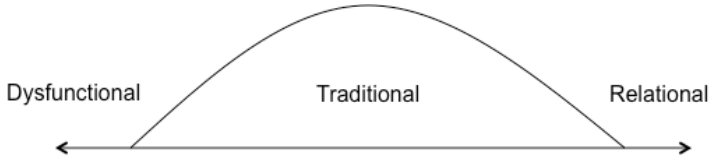
the effectiveness of the relationship and dysfunctional relationships where the relationship is not beneficial for any of the participants. Dysfunctional relationships are likely to terminate, while marginal ones might continue (Ragins et al., 2000). Potential problems leading to marginal or dysfunctional mentoring relationships are the lack of time and training of the mentor, personality and/or professional mismatch, lack of organizational support, and general incompatibility (Scandura & Pellegrini, 2010). Eby (2010) identified a continuum of relational problems from low to high severity, including superficial interactions, unmet expectations, jealousy, sabotage, betrayal, overdependence, and negative interactions. Negative outcomes that distress performance and work attitudes might deter a participant's career progress and have negative consequences for the organization.

Johnson (2010) explained that negative outcomes might by attributable to mentors' and/or protégés' behaviors. However, research has focused on the mentor's behaviors leading to conflict, including the advisor's failure to become mentors due to lack of time and organizational rewards, mentor lack of training and/or incompetence, and unethical behaviors.

Ragins and Verbos, (2007) recognized that mentoring relationships move in a continuum based on the quality of the relationship from dysfunctional, low quality relationships with negative outcomes passing through traditional, medium quality relationships with one-sided instrumental outcomes to a relational, high quality, mutually rewarding relationships. This model is proposed as a benchmark for empirical testing.

Figure 16

Continuum of Mentoring Relationships (Ragins & Verbos, 2007, p. 105)



	Dysfunctional	Traditional	Relational
Perceived Quality:	Low	Medium	High
Behaviors:	Negative or Dysfunctional	Career Development & Psychosocial Support for Protégé	Career Development, Psychosocial Support for both Relational Behaviors
Outcomes:	Negative	One-sided; Instrumental	Close Mentoring Bonds Mutual learning/growth

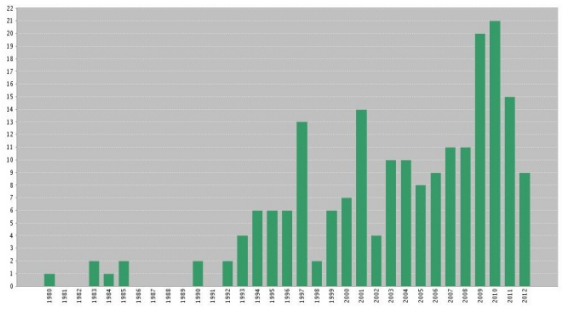
The revision of the literature has produced a list of benefits and outcomes of adult mentoring for mentors, mentees, and the organization. Using data mining techniques, this list shows the frequency to which these outcomes have been cited in the literature examined, providing the foundation for empirical testing across settings. As well, the use of Ragins and Verbos' (2007) model of a continuum of mentoring relationships is proposed for further evaluation

Mentoring Functions and Competencies

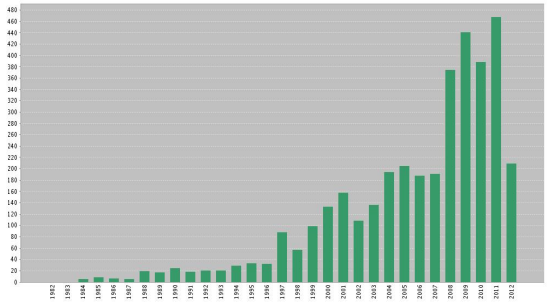
The study of mentoring functions is attributed to the seminal work of Kram (1983) who summarized the multiple activities performed by mentors in two broad categories: career functions and psychosocial functions. This seminal work has produced a great interest among the mentoring community of researchers. This section provides an examination of the topic in the literature selected. As well, mentoring competences are examined as the main factors influencing the effectiveness of mentoring relationships.

Figure 17

Meta-Data: Adult Mentoring Literature – Functions



By Publication Year 1978-2012



By Citation Year 1978-2012

Results: 202Articles			
Sum of the Times Cited:	3,697	Citing Articles:	1,686
Sum of Times Cited without Self-Citations:	3,073	Citing Articles without Self-Citations:	1,552
Average Citations per Item:	18.3	H-Index:	33
Top Three Authors		Top Three Research Areas	
Allen, T.	4.0%	Applied Psychology	41.6%
Eby, L.	3.0%	Educational Research	32.2%
Ensher, E.	3.0%	Management	22.8%

In the examination of the large database, 202 articles were found exploring the topic, with 33 representative articles in the area based on the H-Index analysis. The top three articles attending this topic are:

1. Mentoring Alternatives: The Role of Peer Relationships in Career Development by Kram and Isabella (1985) – 250 citations;
2. Formal and Informal Mentorships: A Comparison on Mentoring Functions by Chao, Walz, and Gardner (1983) – 212 citations; and
3. Mentorship: A Career Training and Development Tool by Hunt and Michael (1983) – 185 citations.

For Kram (1983, 1985), career or vocational functions include those aspects of the relationship that enhance career advancement, such as providing information, challenging

assignments, exposure, visibility, and protection. Psychosocial functions are those aspects that enhance a sense of competence, identity, and effectiveness in a professional role, such as emotional support, counseling, confirmation, acceptance, and friendship. Multiple empirical studies have supported these functions (Noe, 1988; Ragins & McFarlin, 1990).

Further research has proposed minor changes and/or additions to Kram's model; for example, Scandura (1992) proposed role-modeling as a separate function. Because it involves behaviors that affects both career and psychosocial functions, it does not require action of active involvement of the mentor but rather an active observation of the protégé to identify and emulate valued behaviors in the system - mainly an identification with the mentor's characteristics that are trusted, respected, and held in high regards. A mentor's influence entails displaying role model behaviors through exemplary personal achievements, character and/or behaviors inspiring stimulation and motivation for high performance through the projection of a powerful, confident, and dynamic presence (Sosik & Godshalk, 2007). Cohen, Steele, and Ross (1999) developed six behavioral functions for the mentor: relationship building, information sharing, confrontive focus (reflection and alternative thinking), modeling, and vision (mentee takes initiative for future growth and learning).

In an attempt to measure the influence of mentoring functions in benefits and outcomes, sometimes in particular populations, several scales have been developed. Noe (1988) validated nine mentoring functions using a 29 items questionnaire:

1. Coaching,
2. Acceptance and Confirmation,
3. Role Modeling,

4. Counseling,
5. Protection
6. Exposure and Visibility,
7. Sponsorship,
8. Challenging Assignments, and
9. Friendship.

Dreher and Ash (1990) used 18 items to operationalize career and psychosocial functions:

1. Challenging Assignments;
2. Meet and Establish Personal Contact with Others;
3. Finish Assignments;
4. Protect from Others;
5. Promote Career Interests;
6. Inform of Company's Internal and External Conditions;
7. Convey Feelings of Respect and Empathy;
8. Discuss Anxiety and Fears;
9. Concerns regarding Competence, Commitment;
10. Relations with Peers;
11. Relationships with Supervisors;
12. Relationships with Family;
13. Share Professional History;
14. Share Personal History;
15. Prepare for Advancement;
16. Encourage New Ways of Behaving;

17. Role Model;

18. Display Similar Attitude and Values.

In more recent studies, Scandura and Ragins (1993) developed the three-dimensional Mentoring Functions Questionnaire (MFQ) to measure career, psychosocial, and role modeling functions through 15 items:

1. Personal Interest in Career,
2. Important Assignments,
3. Coaching,
4. Advise on Promotional Opportunities,
5. Share Personal Problems,
6. Coordinate Professional Goals,
7. Socialize after Work,
8. Model Behavior,
9. Motivation,
10. Confidences,
11. Knowledge,
12. Friend,
13. Ability to Teach,
14. Assign Time and Consideration, and
15. Often Go to Lunch.

Pellegrini and Scandura (2005) investigated vocational support:

- Personal Interest in Career;
- Coordinate Professional Goals;

- Devote Special Time and Consideration to Career;
- Psychosocial Support: Share Personal Problems, Exchange Confidences, Friendship; and
- Role Modeling: Model Behavior after Mentor, Admire Mentor's Ability to Motivate, Respect Mentor's Ability to Teach.

These instruments have been validated mainly in protégés populations. Scandura and Pellegrini (2007) suggest the need for comparison and validation of the scales from mentor and mentee perspectives in emerging mentoring models, within positive and dysfunctional mentoring relationships, longitudinal research to evaluate the phenomena over time, and extension of the scales to include additional items and better operationalize different functions in multiple settings.

From the analysis of mentoring functions, the researcher proposes a separation of the skills development function due to the complexity of this area. It is important to differentiate what types of skills are actually developed as a result of the interaction between the mentor-mentee and the relative importance of these skills across disciplines. A separate analysis of academic functions to better understand the role of mentors in academic settings and differentiate from academic associated functions is also suggested. A model and a list of mentoring functions are proposed for further empirical testing.

Table 5

Proposed Matrix to Differentiate Mentoring Functions

Mentoring Functions		
Career functions • Coach • Challenge • Inform • Goal setting • Set standards	Academic functions • Identify resources • Guide scholarly work • Supervise research • Monitor progress • Foster publications	Psychosocial functions • Acceptance • Confirmation • Counsel • Encouragement • Friendship
Skills Development		
Sponsorship & Networking		
MODELING		

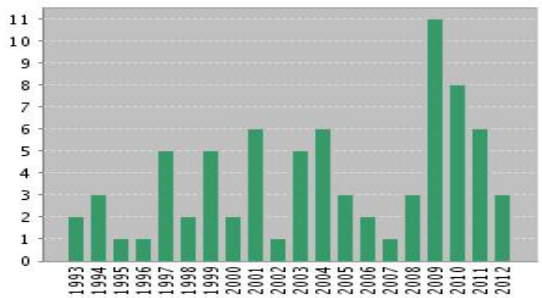
Table 6

Mentoring Functions

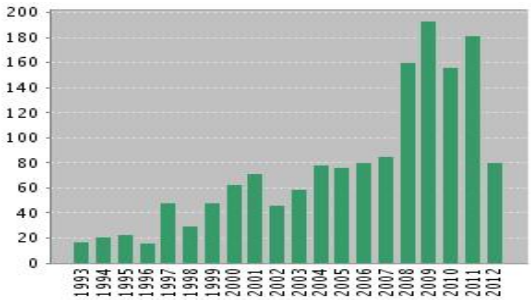
CAREER FUNCTIONS			PSYCHOSOCIAL FUNCTIONS		
	f	CASES		f	CASES
Learning Ropes of Profession	10498	75	Support Emotional Well Being	5473	80
Coach	8353	63	Share Feelings	2829	64
Support	5473	88	Encourage	1545	65
Inform	3672	85	Offer friendship	1237	62
Ask Powerful Questions	3229	90	Accept	1111	70
Goal Setting Assistance	3216	58	Share Values	1108	63
Promote Critical Thinking	2514	42	Promote Mutuality	1006	45
Challenge	2037	57	Motivate	952	50
Promote Reflection	2013	60	Listen	930	40
Commit to Protégé's Success	1945	67	Promote Positive Attitudes	746	57
Provide Feedback	1618	52	Parent	745	50
Provide Constructive Critic	1398	65	Promote Protégé's Confidence	726	50
Promote Protégé's Career	1375	72	Assist in Discovering Identity	710	36
Advise on Career Opportunities	1133	47	Fear	478	42
Assign Developmental Tasks	932	76	Empathy	392	33
Stimulate Controlled Risk Taking	737	43	Confirm	390	47
Create Developmental Tasks	731	47	Nurture	291	35
Create Opportunities for Dialogue	703	26	Help to Alleviate Anxiety	261	32
Assist in Developing Vision	606	29	Affirm	252	31
Protect	490	51	Disclose Experiences	227	22
Expect Excellence	474	37	Reinforce Positive Behaviors	202	32
Introduce New Language	384	34	Counsel	115	25
Help Devise Career Road Map	374	26	Promote Emotional Intelligence	103	37
Confront	290	33	Promote Sense of Competence	54	13
Advocate	253	36	Show Interest in Protégé's Life	33	19
Correct	130	30	Share Personal Experiences	7	6
Provoke Cognitive Dissonance	29	9	Build the Relationship	4	4
Share Organizational Information	24	13	Share Personal Problems	2	2
Set High Expectations	19	11	**MODELING FUNCTIONS**		
Set High Standards	18	11	Model Professional Behaviors	3401	85
Delegate Important Assignments	9	4	Provide Example	2644	66
SPONSORSHIP FUNCTIONS			Gain Protégé's Respect	1074	70
Promote New Relations	21750	91	Role Model	446	43
Create and Open Opportunities	2362	77	Show Admirable Qualities	166	34
Promote Social Interactions	1511	69	Serve as a Mirror	94	
Connect Protégés with Key People	1057	65	**SKILLS DEVELOPMENT FUNCTIONS**		
Sponsor Professional Activities	935	58	Teach	5216	56
Establish Contact with Developers	817	54	Impart Knowledge	1894	66
Link Protégé with Stakeholders	710	51	Develop Competencies	1757	48
Socialize with Protégé	576	50	Develop Ability	941	53
Recommend Protégé	437	45	Create Expertise	595	41
Expose Protégé to Social Situations	327	44	Develop Talent	520	34
Visibility	291	36	Master Professional Roles	346	46
Introduce Mentee to Personal Networks	257	38	Develop Capabilities	127	23
Interconnect	29	15	Develop Aptitudes	37	12
Patronage Protégé's Career	10	7			

Figure 18

Meta-Data: Adult Mentoring Literature – Career Development



By Publication Year 1978-2012



By Citation Year 1978-2012

Results: 81 Articles			
Sum of the Times Cited:	1,648	Citing Articles:	919
Sum of Times Cited without Self-Citations:	1,492	Citing Articles without Self-Citations:	863
Average Citations per Item:	20.35	H-Index:	23
Top Three Authors		Top Three Research Areas	
Allen, T.	4.9%	Applied Psychology	44.4%
Eby,L.	4.9%	Management	25.9%
Godshalk, V.	4.9%	Educational Research	20.1%

In the analysis of career development functions, 81 articles were identified with 23 being the most representative based on relative impact measured by number of citations.

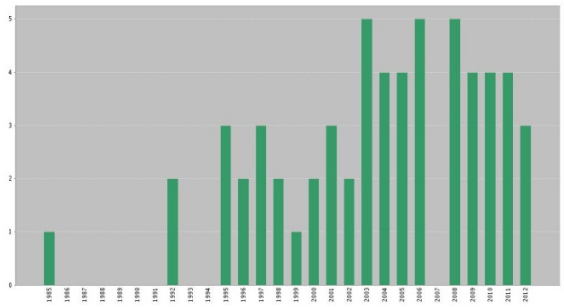
The top three articles identified are:

1. Mentoring Alternatives by Kram and Isabella (1985) – 250 citations;
2. Mentorship: A Career Training and Development Tool (1983) – 185 citations; and
3. Gender and Willingness to Mentor in Organizations by Ragins and Cotton (1993) – 75 citations.

The most prolific authors in the area are Allen, Eby, and Godshal, with four articles each. Most articles were originated in the Applied Psychology research area.

Figure 19

Meta-Data: Adult Mentoring Literature – Psychosocial Support



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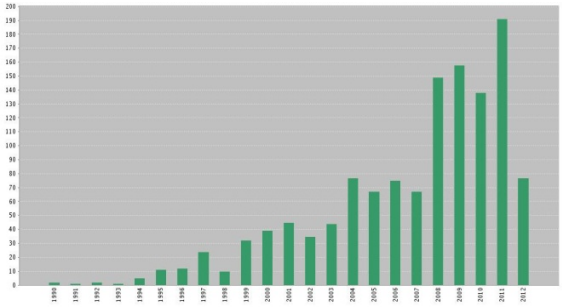


By Citation Year 1978-2012

Results: 59 Articles			
Sum of the Times Cited:	1,262	Citing Articles:	720
Sum of Times Cited without Self-Citations:	1,133	Citing Articles without Self-Citations:	680
Average Citations per Item:	21.39	H-Index:	20
Top Three Authors		Top Three Research Areas	
Allen, T.	11.9%	Applied Psychology	61.0%
Eby, L.	6.8%	Management	32.2%
Ensher, E.	6.8%	Educational Research	11.9%

In the analysis of psychosocial functions, 59 articles were identified with 20 of them being the most representative based on relative impact measured by number of citations.

The top three articles identified are:

1. Formal and Informal Mentorships: A Comparison on Mentoring Functions and Contrast with Non-Mentored Counterparts by Chao, Walz, and Gardner (1992) – 212 citations;
2. Effects of Race, Gender, Perceived Similarity, and Contact on Mentor Relationships by Ensher and Murphy (1983) – 101 citations; and
3. Perceptions on Mentoring Relationships by Fagenson-Eland, Martks, and Amendola (1993) – 79 citations.

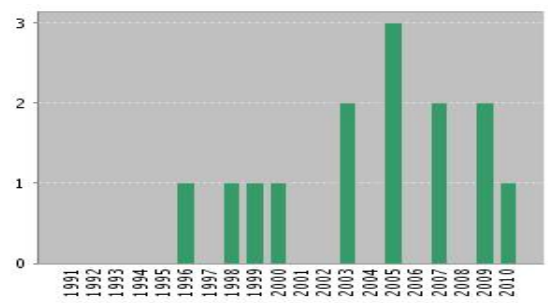
The most prolific authors in the area are Allen, Eby, and Ensher, with seven, four, and four articles respectively. Most articles were originated in the Applied Psychology research area.

Mentoring Competencies

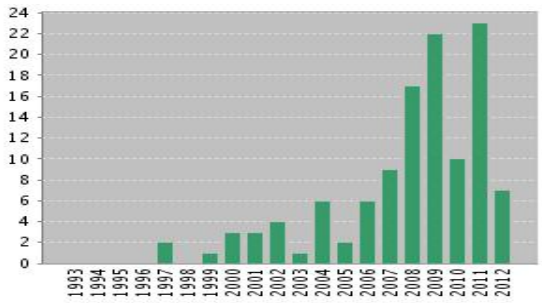
Mentoring outcomes and functions provided in a mentoring relationship are highly dependable on factors such as the context, the purposes and objectives of establishing a relationship, the type and length of the relationship, and the values and competencies of the participants.

Figure 20

Meta-Data: Adult Mentoring Literature – Competencies



By Publication Year 1978-2012



By Citation Year 1978-2012

Results: 15 Articles			
Sum of the Times Cited:	117	Citing Articles:	113
Sum of Times Cited without Self-Citations:	117	Citing Articles without Self-Citations:	113
Average Citations per Item:	7.8	H-Index:	6
Top Three Authors		Top Three Research Areas	
Tillman, L.	13.3%	Educational Research	46.7%
		Applied Psychology	40.0%
		Multi-Disciplinary Psychology	20.0%

The topic of mentoring competences has not been extensively explored in empirical studies. Most of the data available comes from books, and validation of

assertions is scarce. From the large database of 588 articles, only 15 of them addressed the theme. The most cited articles in this area are:

- The Mentoring Information Exchange: When Do Mentors Seek Information from their Protégés? by Mullen (2005) – 21 citations;
- Transformational Supervision: When Supervisors Mentor by Johnson (2007) – 17 citations; and
- An Examination of the Role of Age in Mentoring Relationships by Finkelstein, Allen, and Rhoten (2003) – 17 citations.

The only piece of literature that fully explores the topic of mentoring competences is the book edited by Cluttlerbuck and Lane (2004), The Situational Mentor: An International Review of Competences and Capabilities in Mentoring. In this book, Darwin (2004) evaluates mentors' competences in eight dimensions:

1. The authentic dimension, including characteristics such as being genuine, fair, hones, supportive, understanding, loyal, helpful, principled, thoughtful, believing, respectful and empowering;
2. The nurturing dimension, identifying mentors who are kind, sensitive, compassionate, easy-going, spiritual, patient, generous and empathetic to others;
3. The approachable dimension, with mentor characteristics such as humorous, friendly, encouraging, communicative, positive, open, caring, co-operative and considerate of others;

4. The competent dimension, identifying mentors who are knowledgeable, bright, interested, intelligent, enthusiastic, professional, confident, experienced, insightful and informative to others;
5. The inspirational dimension includes characteristics such as risk-taking, visioning, inspiring, creative, curious, dynamic, strong, passionate, direct, brilliant, challenging and assertive;
6. The conscientious dimension includes mentors who are efficient, organized, disciplined, consistent, strict and available to others;
7. The hard-working working dimension in which mentors can present positive or negative characteristics and are described as dedicated, motivated, committed, ambitious, energetic, driven and workaholic, who tend to be demanding of self and others; and
8. The volatile dimension, which includes negative characteristics such as mentors who are neurotic, overbearing, egocentric, outrageous, vindictive, contradictory, self-centered, wild, eccentric, opinionated, stressed, cunning, hard and picky.

According to Darwin (2004), women, peers, and mentors close to the protégés are frequently described as nurturing mentors, while men in management positions are described by their mentees as competent. As well, he points out that even mentors with volatile characteristics are a source of learning for mature protégés who are able to observe the flaws in their mentors and avoid those behaviors. Nurturing, authentic, and approachable mentors better satisfy psychosocial needs, whether inspirational or volatile. Hard-working mentors are more suitable to satisfy instrumental needs of their protégés.

Besides the mentor characteristics, Darwin identifies five critical factors mediating the quality of the relationship:

1. The mentor's belief in the protégé,
2. The eagerness of the protégé to be mentored,
3. The timing in mentoring at transitional periods,
4. Reciprocity, and
5. Affinity.

Lane (2004) tested a list of 32 functional and 30 personal competences for mentors with 42 employees of a major international engineering company. In her findings, the significant competences for mentors were:

- Helping develop confidence,
- Caring listening,
- Concern and interest in the mentee,
- Encouraging,
- Empathetic,
- Integrity,
- Genuine Interest,
- Offering Support,
- Acting as Sounding Board, and
- Trustworthiness.

Clutterbuck (2004) defines competence as the ability to perform a task in a consistent manner and stating the need for situational mentors - those who are able to respond to the mentees' needs. He also identifies the need for mentors to develop general competences, including:

- The ability to establish rapport;
- Define, plan, take action, and collaborate with the mentee in achieving goals;
- Sustain commitments, provide challenge, help the mentee to become autonomous and cope with failure; and
- Come to closure, redefine the relationship, and move on.

Cutterbuck provides a model of five pairs of behavioral competences for mentors:

Figure 21

Five Pair of Mentor Competences - Clutterbuck and Lane (2004, p. 48)

From the revision of the selected literature, a list of the most cited mentor competences is offered for further empirical investigations:

Table 7

Mentor Characteristics

INSTRUMENTAL BEHAVIORS			RELATIONAL BEHAVIORS		
	f	CASES		*f*	CASES
Professional Skills	2049	85	Positive	1800	62
Challenge	1943	69	Understanding	1762	59
Communication Skills	1483	76	Openness	1290	48
Open To Learn	1382	57	Respect	723	56
Focused	728	56	Supportive	441	53
Available	615	26	Encourages	411	32
Direct	603	54	Interested	309	44
Realistic	586	40	Self-Awareness	263	26
Helpful	540	49	Honest	234	33
Practical	518	39	Caring	196	30
Aware Of Org. Culture	512	33	Integrity	159	29
Reflect	502	46	Reciprocal	146	25
Good Listener	453	33	Genuine	143	26
CREATIVE	430	31	Tolerant	94	17
Initiative/Proactive	425	33	Agreeableness	90	8
Teach	407	42	Attentive	86	28
Active	392	42	Authentic	84	20
Consistent	314	45	Friendly	81	24
Committed	268	43	Fair	80	28
Prepared	267	31	Empowering	67	20
Dynamic	218	29	Inspiring	66	27
Independent	215	54	Patient	64	22
Responsible	207	33	Conscientiousness	63	8
Competent	200	31	Thoughtful	63	23
Driven	165	28	Self-Reflection	59	13
Motivated	130	28	Empathetic	58	19
Questioning	128	28	Interdependent	58	13
Methodological	126	17	Stimulates	52	24
Organized	120	30	Enthusiastic	46	24
Skilled	118	31	Assertive	44	17
Tough	114	26	Relationship Management	40	10
Accurate	101	27	Loyal	39	16
Accessible	94	30	Critical Friend	30	8
Self-Directed	77	15	Trustworthy	27	11
Knowledgeable	72	22	Conscientious	26	12

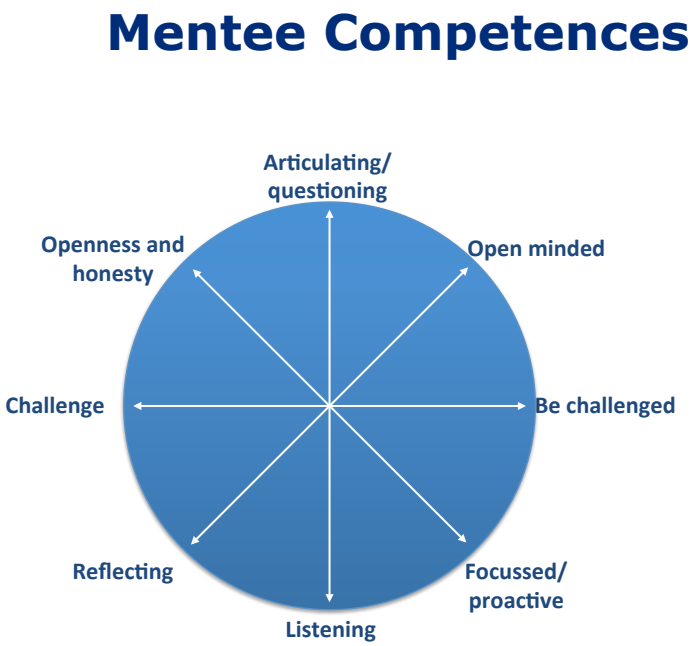
Efficient	58	26	Sense of Humor	18	10
Reliable	58	21	Adaptable	17	10
Dedicated	57	20	Charismatic	16	9
Ambitious	55	18	Humorous	16	9
Precise	49	21	Ordered	15	11
Visioning/Visioner	40	11	Approachable	14	8
Curious	39	17	Persuasive	14	9
Passionate	39	17	Self-Respect	12	6
Giving Feedback	38	13	Principled	11	9
Goal Clarity	38	8	Cheerful	5	4
Goal Attainment	36	5	Considerate	1	5
Receiving Feedback	34	12	Shows Genuine Interest	5	2
Risk-Taking	33	13	Suspending Judgment	5	4
Communicative	32	5	Values Other	4	1
Energetic	32	13	Interest In Helping Others to Learn	3	1
Insightful	31	17	Share Power	3	3
Articulating	27	13			
Delegate	27	11	**PERSONAL CHARACTERISTICS**		
Informative	21	13		**f**	**CASES**
Astute	20	12	Successful	1033	70
Hard-Working	20	6	Experienced	832	62
Resilient	19	13	Strong	804	45
Be Challenged	18	10	Powerful	413	36
Disciplined	18	10	Role Model	352	45
Strict	18	13	Talented	297	31
Sense Of Proportion	14	3	Confident	144	25
Succinct	14	11	Talented	139	23
Urges	14	5	Influential	115	36
Work Ethic	13	9	Respected	107	26
Team Players	9	5	Liked	101	27
Non-Judgmental	8	7	Trusted	100	29
Cooperative	7	4	Bright	72	18
Focused	4	1	Intelligent	71	23
Uprightness	4	2	Emotional Stability	62	9
Resolute	3	3	Admired	55	15
Well Balanced	3	3	Self-Confident	24	14
Striving for Perfection	2	2	Believing	23	13
Tenacious	2	2	Brilliant	23	14
Willing To Take Risks	2	1	Extroversion	4	3
NON DESIRABLE / NEGATIVE CHARACTERISTICS					
Demanding	95	23	Workaholic	12	6
Distant	48	16	Neurotic	7	3
Stressed	35	17	Outrageous	7	3
Inconsistent	31	11	Vindictive	7	5

Arrogant	21	12	Opinionated	6	4
Contradictory	20	11	Stubborn	6	4
Intimidating	19	12	Distrustful	2	2
Wild	15	6	Overbearing	2	2
Self-Centered	20	5	Discouraging/negative	1	1
Volatile	12	5	Either Combative Or Passive	1	1

Mentees' competences have probably been less studied because there is a perception that protégés engage in a mentoring relationship precisely to develop their own competences. However, Clutterbuck (2004) proposes that a set of attributes in the mentee is important to establish and sustain a mentoring relationship.

Figure 22

Mentee Competencies - Clutterbuck (2011, p. 16)



Under the assumption that mentoring relationships succeed when both parties actively contribute to their development, Cluttebuck (2004) suggests the need of basic abilities to establish rapport and a minimum of communication skills in the mentee to initiate a mentoring relationship. In further work presented at the 2011 Mentoring

Conference, he proposed previous training for the mentee and/or intentional activities assisted by the mentor once the relationship is established to develop the following dyads of competence:

1. Focus and proactivity as the antecedent that demonstrates interest and commitment of the mentee, while openness and honesty provide a common ground to establish the relationship;
2. Listening and questioning skills, as a basis for learning to happen;
3. Open minded and reflective, as characteristics desirable to be able to receive feedback; and
4. Being open to be challenged and challenge the mentor to enhance learning.

The examination of the literature provides a model and a list of mentoring functions and the frequency they have been cited as a basis for constructing new scales to better operationalize constructs that advance our knowledge of mentoring functions. As well, identification of the ideal characteristics and competences for mentors and desirable competences for the mentee are provided as the basis for further analysis of the impact of these competences in the effectiveness of mentoring relationships that inform researchers and practitioners in the design of formal mentoring programs.

Adult Mentoring Modalities, Types, and Forms

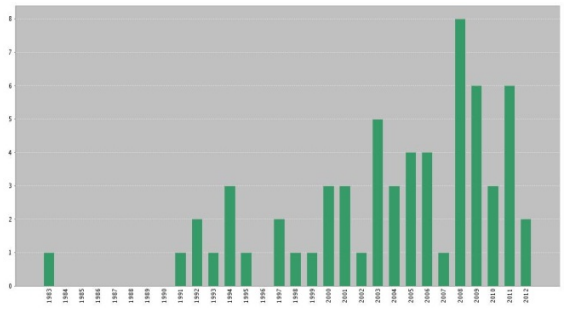
There are two modalities of mentoring relationships: one that proposes that mentoring relationships can be designed and created and one that considers mentoring occurring naturally. These two modalities of mentoring are examined throughout the general database of articles and more thoroughly in the literature selected.

Informal and Formal Mentoring Relationships

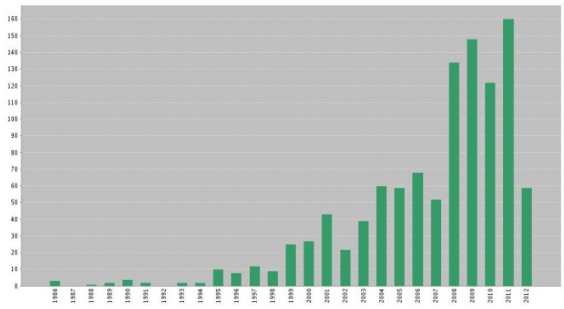
Informal or naturally occurring mentoring relationships develop between two people on the basis of affinity of/for attributes and interests. It usually consists of one experienced member providing career or psychosocial support for a less experienced person. This type of relationship is initiated, structured, and managed by the participants on the basis of a closer interpersonal bond. In contrast, formal mentoring relationships are initiated, officially recognized, structured, managed, and sanctioned by thee organization (Mullen, 2005).

Figure 23

Meta-Data: Adult Mentoring Literature – Formal/Informal Mentoring



By Publication Year 1978-2012



By Citation Year 1978-2012

Results: 62 Articles			
Sum of the Times Cited:	1,073	Citing Articles:	631
Sum of Times Cited without Self-Citations:	938	Citing Articles without Self-Citations:	590
Average Citations per Item:	17.31	H-Index:	17
Top Three Authors		Top Three Research Areas	
Allen, T.	9.7%	Applied Psychology	58.1%
Eby, L.	8.1%	Educational Research	24.2%
Lentz, E.	6.5%	Management	24.2%

In the general database, 62 articles addressing the topic of formal and informal mentoring were found with an H-Index of 17 articles. The top three articles cited are:

1. Formal and Informal Mentorships: A Comparison on Mentoring Functions by Chao, Walz, and Gardner (1992) – 212 citations;
2. Marginal Mentoring: The Effects of Type of Mentor, Quality of Relationship, and Program Design on Work and Career Attitudes by Ragins and Cotton (2000) – 144 citations; and
3. Perceptions of Mentoring Relationships by Fagenson-Eland, Marks, and Amendola (1997) – 79 citations.

For Mullen (2007), informal mentoring relationships in academic settings are spontaneous, gradual, and deeper than assigned mentorships; involve greater commitment and risk of failure; provide greater benefits in regards to protégés satisfaction; are more available in the protégés context; and are expected in graduate school as naturally happening among advisor and doctoral students. For this type of mentoring relationship to succeed, protégés readiness and mentor competence are critical factors. Mentoring functions go beyond the traditional academic advising assistance in the sense that mentoring extends teaching and learning functions with career functions (sponsorship, coaching, protection, challenging work, and applied professional ethic) and psychosocial functions (role modeling, acceptance and confirmation, counseling, and friendship) that are not present in academic advising relationships.

In the workplace, informal mentoring relationships happen on the basis of mutuality through an informal assessment of the costs and benefits of involving in the relations where mentors are more willing to mentor others based on protégés potential to enhance their own careers and are largely explained by previous mentoring experiences. Mentor functions include career and/or psychosocial activities and finding that older

mentors tend to be more instrumental than relational. However, the degree of mentoring functions provided are dependent not only on the dyad characteristics such as the mentor's age, education, career stage, and motives to mentor or protégés' demographics, career, and personal developmental stage, competence, and attitudes but in the degree of perceived similarity and organizational and contextual factors that facilitate mentoring, such as opportunities for interactions, the organization's reward system, culture, and norms (Dougherty, Turban, & Haggard, 2007).

In contrast, formal mentoring relationships develop from connections that are initiated by organizations in an attempt to capture the organizational benefits of mentoring and to provide developmental relationships to those that traditionally do not engage in naturally initiated mentoring relations. Formal mentoring relationships are initiated, structured, and/or managed by the institution; mentoring dyads are assigned or arranged (Mullen, 2007).

Most formal mentoring programs exhibit one or more of the following characteristics:

- Assigned pairings;
- High-potential pairings: protégés who are assigned to mentors are carefully selected on the basis of their likelihood of benefiting from the process and their potential to contribute to the organization;
- Regulated relationships: mentorships are given guidelines (meeting frequency, certain subjects to cover) by an overseeing advisory figure;
- Evaluation: some form of assessment will be made by the organization to see if particular aims have been met.

Informal mentoring often encompasses:

- A quick start-up and evolution of the relationship;
- Occurrence by proximity, opportunity, and affinity; and
- Occurrence for short-term, task-based learning.

According to Chao (2009), formal and informal mentoring "generally differ on four dimensions: intensity, visibility, focus, and duration" (p. 315). Informal mentoring is believed to be more intense due to the degree of mutuality among participants, less visible due to the lack of organizational recognition, and less focused due to its needs-based rather than goal-based nature. Informal mentoring differs from formal mentoring in duration, because informal mentoring will last until needs are satisfied, while formal mentoring has set starting and end points. Multiple researchers have attempted to measure differences in effectiveness among informal and formal mentoring, and even within formal programs. However, this theme has been elusive due to variations in the design and implementation of formal mentoring programs, the degree of mentoring functions provided, the purposes and objectives desired, the context in which they are implemented, and the personal characteristics, values, attitudes and competences of the participants.

Formal mentoring programs may take several types and forms from traditional approaches: peer, team, group, cohort, circles, and structured mentoring networks, going through upward (reverse) mentoring, to face-to-face or virtual, technology mediated relationships (Fagenson-Eland, 2007;Mullen, 2007).

Traditional mentoring is believed to be hierarchical: one-on-one and face-to-face relationships. *Peer mentoring* or *co-mentoring* are lateral relationships among members

of an organization with similar or equivalent ranks within the organization, generally with one of the members having more experience, knowledge, or tenure. *Team mentoring* occurs when a leader serves as a team mentor, and a group of members provide peer mentoring to each other. *Group mentoring* are partners in which all members support each other in interchangeable roles of mentor and mentee for satisfying human needs and meeting goals. *Mentoring cohorts* are formed on the basis of group common goals and focus in which all members support each other. *Mentoring circles* are formed on the basis of exchangeable mentoring roles and leadership positions based on capabilities or expertise of the group members. *Multiple mentoring* or structured *mentoring networks* are conceptualized on the basis of concurrent mentoring relationships that satisfy complementary needs of the mentee. With the exception of traditional mentoring forms, all other forms might be face-to-face, technology mediated (e-mentoring, virtual mentoring), and/or a hybrid approach (Fagenson-Eland, 2007; Mullen, 2007; Scandura & Pellegrini, 2007).

All mentoring forms and types are believed to follow a succession of mentoring phases (Kram, 1983; Chao, 1997; Scandura, 1992). Kram describes the mentoring relationship in four phases:

1. The initiation phase is a period of formation of the relationship that lasts from 6 to12 months. It is characterized for an identification process and the development of trust.
2. The cultivation phase is a period in which the mentoring functions are maximized, mentee's needs are satisfied, and lasts from two to five years.

3. The separation phase occurs when the protégé reaches independence and the assistance of the mentor is no longer needed. This phase may last between 6 to 24 months.
4. Redefinition occurs when collegiality is reached and the relationship transforms into informal contact and mutual support.

Chao, Walz, and Gardner (1992) tested Kram's model of mentoring phases among different populations finding strong correlations between career-related functions and job satisfaction and socialization outcomes. Following the same line of thought, Chao (1997) studied the long-term effects of mentoring functions provided over a five- year period, corroborating his previous results regarding mentoring outcomes but adding to the understanding of mentoring phases emphasizing the importance of both career-related and psychosocial functions during the cultivations phase and recommending the development of studies examining key behaviors across phases and the impact of participants characteristics in each phase. Lentz and Allen (2007) also recommend the performance of empirical research projects to understand factors, conditions, and outcomes in the evolutions of informal mentoring relationships through each phase from the perspective of the mentor, the mentee, and the organization.

In addition to indirectly capturing the developmental outcomes of formal mentoring relationships, formal programs have been created to promote a more diverse workplace environment suitable for talent and creative development by providing mentoring opportunities to populations that do not engage naturally in mentoring relationships due to many cultural and organizational impeding factors. In academic settings, increasing the retention and graduation rates of under-represented groups has

been set as priority goals in strategic plans for this century. Difficulties in entering into mentoring relationships for women, people of color, and other minority groups are explored in attribution theory. Informal mentoring relationships are more likely to experience initiation problems and barriers as they occur spontaneously and are carried out at the direction of the mentor, not a managing figure/body. Due to the tendency of mentoring relationships to form on the basis of demographic similarity, the limited number of mentors from under-represented groups is considered the main barrier for both formal and informal mentoring relationships to flourish. Several studies evaluating cross-gender and cross-race relationships have reported that participants do not experience the same levels of career and psychosocial support (Ragins, 1997).

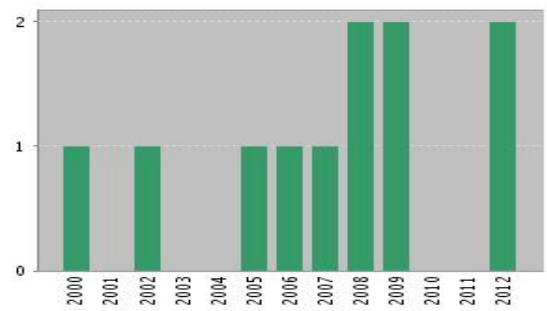
On their study of the impact of race in mentoring relationships, Blake-Beard, Murrel, and Thomas (2007) identified several challenges regarding access, interracial dynamics, and mentoring outcomes as a set of unanswered questions in this area. They identified the challenge of defining mentoring in the context of race, how to operationalize and measure the contrast, power dynamics within organizations, social dynamics in terms of group membership, and the place for developmental networks and effectiveness of mentoring relationships. These authors propose a model of racial dynamics that includes an examination of individual racial and group identity, the workgroup relational demography, and the organizational culture as the contextual variables for further empirical examination. As well, their model suggests an inclusion of the relationship characteristics, interaction strategies, interaction types, and mentoring outcomes as variables for analysis. For these authors, race and mentoring represents unfinished business for organizational, scholars, and practitioners of mentoring.

Adult Mentoring Best Practices

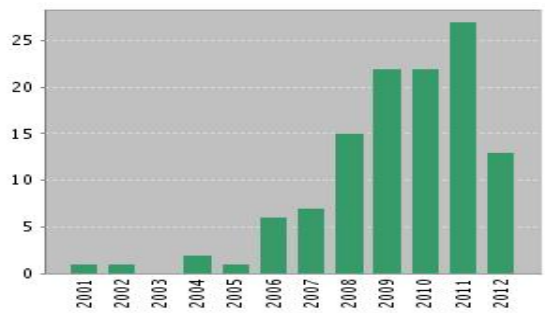
Formal mentoring programs are being implemented across the nation. It is estimated that one-third of the nation's major companies have a formal mentoring program, and this figure is expected to continue to increase (Ragins & Cotton, 1999). The success of a mentoring program has been studied from theoretical perspectives, but evidence-based guidance is scarce (Miller, 2007). Following is an attempt to capture evidence-based best practices from an exploration of the literature.

Figure 24

Meta-Data: Adult Mentoring Literature – Best-Practices



By Publication Year 1978-2012



By Citation Year 1978-2012

Results: 11 Articles			
Sum of the Times Cited:	117	Citing Articles:	108
Sum of Times Cited without Self-Citations:	117	Citing Articles without Self-Citations:	108
Average Citations per Item:	10.64	H-Index:	6
Top Three Authors		Top Three Research Areas	
		Educational Research	50.0%
		Applied Psychology	20.0%

Confirming Miller's assertion, only 11 articles were found in the large database addressing the topic of mentoring best practices from an empirical perspective. Even though the topic is not extensively studied, these articles make reference to some guidelines and ideas that might be considered best practices. The most cited articles are:

- Mentoring Effects on Protégé's Classroom Practice: An Experimental Field Study by Evertson and Smithey (2000) - 28 citations;
- Protégés' and Mentors' Reactions to Participating in Formal Mentoring Programs: A Qualitative Investigations by Eby and Lockwood (2005) - 26 citations; and
- Transformational Supervision: When Supervisors Mentor by Johnson (2007) - 26 citations.

In the analysis of the selected literature, books provided more information about mentoring programs design and best practices, including the trilogy Creating a Mentoring Culture, The Mentor's Guide, and The Mentee's Guide (Zachary & Daloz, 2000; Zachary, 2005; Zachary & Fishler, 2009); Further Techniques for Coaching and Mentoring (Megginson & Clutterbuck, 2005, 2009); Mentoring and Coaching: Theory and Practice (Garvey, Megginson, and Stokes, 2007); but only a few sources claimed to be evidence-based, including Designing Workplace Mentoring Programs: An Evidence–Based Approach (Allen, Finkelstein & Poteet, 2009) with book chapters by Campbell (2007), Finkelstein and Poteet (2007), O'Brien, Rodopman, and Allen (2007). Only one source was identified as providing best-practices to managing the relationship rather than the program (McGowan, Stone, and Kegan, 2007)

The term 'best practice' is a slippery one. There are many ways to approach defining the components of a 'best practice.' In general, the term refers to responsiveness, due diligence, overall effectiveness. Standards, best practices, and competencies can have various meanings depending on the field of study, institution, organization, or individual defining them. Even in the field of mentoring, what could constitute as a standard or best

practice for one program (e.g. mentoring young professionals) may not be relevant for another (e.g. mentoring undergraduate students). For this reason, practical definitions are provided for these terms before looking at more specific applications in the context of mentoring.

Standard, in general is defined by a performance goal (Dean, 1990). Standards are overall goals or achievements that organizations strive to meet with the idea that adhering to these standards will help to further the mission or purpose of the organization. Standards can be based on previous research or successful practices that have been reproduced over time.

Best Practices defines a practice, process, or activity that has been shown through evaluation and research to be most effective in producing a desired outcome. Best practices promote specific actions (or ways of doing things) that will help individuals adhere to the standards of the organization

Competency refers to the knowledge, skills, and abilities that allow a person to perform a specific task or excel in a certain area. Individuals may need to display several concrete competencies in order to carry out the best practices of their organization.

Defined in this way, standards, best practices, and competencies can be seen in terms of an organizational hierarchy. A program's standards or overall goals can be achieved through the use of best practices. In turn, best practices can only be used if the individuals in the program have competencies that allow them to understand and carry out specific actions relevant to the best practices (Roybal, 2011).

There are a few measurable components of best practices that include results substantiated by credible evidence to improve outcomes and achieve goals. For

mentoring programs, standards, best practices, and competencies largely depend on the demographic being served and the outcomes desired. However, there seems to be a general convergence in the literature on what standards and practices are present in successful mentoring relationships and programs (Higgins & Kram, 2001; Mullen, 2009).

Mentoring best practices seem to unfold in two different areas: general project/program management topics such as the need for assessment, planning, implementation and evaluation of the program, and the particular areas of mentoring relationships, including critical aspects such as matching process and training of participants. An outline of the most common program management best practices follows.

In her work, Zachary (2000) emphasizes the need to create a mentoring culture within organizations. Starting with an assessment of the organizational culture, measuring its readiness, opportunities, and support, Zachary suggests the identification of key people as critical in planning and implementing a mentoring schema. Grounded in the organizational infrastructure and aligning mentoring goals with the organizational ones, mentoring programs increase their chances to succeed. Across all stages of the mentoring program's life, *accountability* – the process of setting goals, clarifying expectations, defining roles and responsibilities, monitoring progress, and measuring results through formative and summative processes of gathering feedback and *communication* of the value and visibility of the program across the organization are the most acute factors for effectiveness and success.

These general programmatic recommendations are later translated into managing the relationship. Similar principles established for the organization are also essential for

the relationship. Mentoring dyads are recommended to prepare for the relationship, working together in preparing the relationship, negotiating goals, boundaries and expectations, establishing mechanisms to measure progress and accountability, enabling the relationship, and coming to closure. Zachary (2005) offers with great detail a set of strategies for mentors and mentees, a large amount of checklists, assessments, and tools with emphasis in the development of two competences for mentors - the ability of providing feedback and facilitation skills and listening skills for mentees.

In a similar approach, Sontag, Vappie, and Wanberg (2007, p. 598) propose nine critical processes for formal mentoring programs success:

1. Formalizing the vision, goals, and expected outcomes of mentoring;
2. Creating a common frame of reference for mentoring at relevant organizational levels;
3. Identifying the links to key business strategies and talent management objectives;
4. Understanding the models and program components of mentoring and designating which of those may be best suited to achieve the objectives;
5. Learning the essential factors needed to organizationally support mentoring;
6. Raising awareness of and developing solutions for the barriers and constraints to mentoring within the organization;
7. Defining evaluation and measurement goals and discussing means of achieving them;
8. Gaining input into programmatic design components; and
9. Crafting a communication plan regarding mentoring strategy.

They also propose human resource specialists a six-step process in launching a mentoring program:

1. The sponsor meeting;
2. The implementation team planning sessions: Nomination and recruitment of mentors and mentees;
3. Interviews with mentors and mentees: A matching process based on goals and competences;
4. Mentor and mentee orientation and launch;
5. Check points at two, four, and eight months; and
6. Program closure and evaluation (Sontag, Vappie, & Wanberg, 2007, p. 600-603).

Campbell (2007) proposes a series of recommendations for academic mentoring programs starting with the creation of intentional mentoring programs and focusing on five critical processes:

1. The recruitment and selection of mentors,
2. The matching of mentors and protégés,
3. Training in mentoring,
4. Length and boundaries, and
5. Frequency of interaction.

Campbell points out that not all faculty members make good mentors. However, he suggests including mentoring functions as part of the job descriptions and limiting the number of protégés assigned per mentor. In regards to the matching process, he suggests emulating naturally occurring mentor relationships and matching dyads in terms of

affinity and having an adequate representation of gender and ethnicity mentors. Related to training, he recommends basic mentoring information through readings, lectures, small discussions, email list servers, and monthly meetings with mentors. He suggests providing a set of ground rules regarding power and boundaries in the relationship, added with regular conversation on the nature and objectives of the relationship.

The best practices proposed regarding frequency is left to the participants but encourages the establishment of regular meetings. Campbell's (2007) general program management recommendations are quite vague mentioning only the need for careful planning, recruitment, gathering institutional support, anticipating data collection and assessment, and gaining institutional support to address organizational barriers such as time and space allocations.

In a review of multiple mentoring programs, Finkelstein and Poteet (2007) found that the perception of organizational support plays a role in preventing negative mentoring behaviors by promoting a culture that models positive behaviors. They recommend finding leadership sponsors in the organization to support the program in three areas: becoming mentors, influencing the organizational reward system, and changing the organizational structure to support mentoring programs. Setting clear program objectives seems to be important due to findings linking programs designed to promote careers as producing greater satisfaction. These objectives must be aligned with organizational strategic plans and clearly communicated.

Of critical importance is the selection of mentors and mentees using a combination of skill-based, motivation-base, and personality-based characteristics being careful using volunteers due to lack of evidence of its benefits. They recommend against

random assignments and caution in regards to the degree of input of participants in the matching process due to the existence of moderators pointing in different directions. In terms of the race, gender, and ethnicity, they found contradictory strategies, some in favor of matching by similarity and others promoting diversity. They conclude that these strategies have to be aligned with the programmatic purposes and the organizational culture. They propose the use of multiple mentors or groups to overcome multiple factors when matching, selection of factors based on programs objectives, and at least assigning one mentor based on similarity to overcome problems surrounding the matching process. Training and setting clear expectations are recommended as precursors to participation and success of the program. Even though they recommend assessment, they do not suggest procedures or criteria to evaluate the program.

O'Brien, Rodopman, and Allen (2007) propose paying attention to seven critical aspects in developing formal mentoring programs:

1. Assessment of resources available and institutional support;
2. Needs assessment of the organization, participants and other constituents, including the evaluation of cultural factors to develop realistic, clear and attainable goals that are communicated to both the mentor and the protégé;
3. Use of various criteria in the process of screening and selecting participants based on programmatic objectives;
4. Matching strategies based on similarity factors such as inters, values, and needs;
5. Ongoing mentoring training for both mentors and protégés;

6. Establishment of policies regarding the frequency and method of interaction, duration of the relationship and closing procedures, suggesting a duration of at least six months to two years; and
7. Ongoing evaluation, ideally in the form of experimental design with multiple variables and possible longitudinal designs.

Finally, Allen, Finkelstein, and Poteet (2009) warn that one-size-fits-all strategies to design mentoring programs do not work and that organizations must consider the several issues in designing mentoring programs to tailor strategies to their needs, objectives, and culture. Overarching guideless suggest the critical need to establish specific objectives for the program and alignment with organizational values and mission. These authors provide a set of recommendations for traditional mentoring forms based on interviews with multiple mentoring programs selected in a non-randomized form constructed on personal contacts and knowledge of companies with formal mentoring programs.

A summary of suggestions provided across the book include:

- Defining mentoring, the specific career and psychosocial support offered by the program, the objectives and outcomes expected for the organization and its participants, and the type of mentoring approaches required for successful accomplishments of goals.
- Planning and providing infrastructure to the program based on needs assessment, organizational support, integration with developmental strategies and organizational culture, and program administration.

- Establishment of general participation guidelines choosing between mandatory or voluntary participation depending on programmatic goals. Selection of protégés identifying target population and a combination of skill-based, motivation-based, and personality-based characteristics. Mentor recruitment focused on reasons to mentor, knowledge, skills, and abilities.
- Matching mentors choosing from different strategies depending on the degree of formality from directive matching to self-selection matching. Multiple combinations might be considered to better fit the organizational needs and culture. However, certain degree of input from participants is recommended.
- Establishing matching criteria based on similarity or diversity depending the organizational goals and needs but balancing developmental needs of the protégé, personality compatibility, reporting relationships, personal interests, and geographic proximity. Quarterly feedback is suggested to identify matching issues and allowing for changes.
- Basic training curriculum to include the definition of mentoring, outline program objectives. Review responsibilities of mentors and of protégés. Review role of program staff. Set expectations for what the program can and cannot do. Establish relationships' structure and boundaries. Describe potential relationship challenges. Describe the structure of the formal mentoring program. Inclusion of post-training support and evaluation.
- Establishment of policies in regards confidentiality, meeting frequency, mode of contact, and relationship duration.
- Suggest planned activities for protégés' career development, and

- Monitoring and evaluating the program, defining qualitative and quantitative methods to measure individual and organizational variables frequently to collect data, content of the monitoring and evaluation of the reactions, learning, behavior of performance change, and business results for the organization; preferable using an experimental design.

Best practices in training mentors and mentees have also been explored. Implementation plans for formal mentoring programs call for training sessions to help mentors understand expectations, goals, and roles (Hezlett & Gibson, 2007). Mentors require initial in-service training and more explanation of their roles before they start mentoring (Turban, D. & Jones, A. 1988). Training cannot compensate for the lack of spontaneity of the connection, but it ensures that a mentor will exhibit certain appropriate behavior by defining and regulating the activity between the mentor and mentee and thus increasing the probability that certain objectives in mentoring will be met (Flaxman, Ascher & Harrington, 1989). Despite the singularity of situations, contexts, and program goals, there are some overall practices that have been distinguished as ones that will positively affect any mentoring relationship.

In order to create an environment where a number of adults can learn and grow, the trainer must provide different forms of support and challenge. To support adult learning, one should consider the employment of different developmental principles, such as the use of a variety of lesson design and materials and teaching strategies. Specifically, a trainer should be aware of how much and how high the expectations they place on their learners. Too much and the students feel the material is above their capacities; too little and they feel unworthy and unmotivated.

In looking at different types of adult learning, it becomes clear that there are many "ways of knowing" to account for in the classroom: socializing and self-authorizing types may have trouble with a presentation of an aggregation of facts and/or concrete rules, while this would appeal to those who prefer an instrumental way of knowing and would feel comfortable with a step-by-step approach (Flaxman, Ascher & Harrington, 1989). For all learners, an approach that incorporates the classroom/what is being learned to personal and professional real-life experience can be integral in transferring learning.

In constructive-developmental learning (Kegan, 1994), a community of learners is important to the learning process. A common purpose can provide an important framework to develop skills and resources. Adults grow in academic learning, emotional and psychological well-being, and their ability to broaden their perspectives when learning with a cohort. If possible, the trainer should try to learn the students' epistemology of learning – how do they best learn? How did they come to accept and understand this as the best practice? In knowing the backgrounds of the learners, the trainer can more effectively answer particular needs.

Kegan (1994) also distinguishes between transformative and informational learning: *Informational* – increases knowledge, skills, and depth of both and involves a technical or subjective control of one's environment; *Transformational* – a liberation from our own personal reference frames to a capacity to understand a subject at hand more like an object – one that we can examine and impact fully, rather than be in the control of.

Group learning also has an important place in transformational learning. Jack Mezirow (2009) distinguishes between *group learning* and *learning as individuals in a*

group. Group learning involves a medium of information exchange that opens up new avenues of learning and knowledge. Participation is key as is joint analysis, evaluation, and reflection on a task. Group reflection on answers, information, and tasks can lead to more effective goal setting and problem-solving (Belenky & Stanton, 2000). "Reflective discourse develops best when participants are well informed, free from coercion, listen actively, have equal opportunities to participate, and take a critical stance toward established cultural norms or viewpoints" (Mezirow, 2009, p.71)

Training curriculum must focus on developing mentoring competences critical for the establishment of mentoring relationships. As proposed by several authors, a basic mentoring curriculum must be in place. However, if time and resources are available, an extended curriculum for mentoring competences is proposed (Appendix D). Program managers and practitioners might pick and choose from topics depending on particular developmental needs of participants in formal mentoring programs.

Chapter V

Conclusions

The field of mentoring has undergone dramatic growth in the past three decades. The body of research in adult mentoring has accumulated exponentially since the last century, making a systematic review of the literature to identify patterns in the evolution of this emergent field vital. This study outlined the development of the field of mentoring over the past three decades revealing an organized framework of the theory and practice of adult mentoring in academic and workplace contexts. As well, it provides a taxonomy of evidence-based mentoring best practices for creation and maintenance of exemplary formal adult mentoring programs.

The systematic review of books and articles published in peer-reviewed journals provided two things missing for understanding mentoring and for creating and maintaining exemplary formal adult mentoring programs. It arrives at an organized historical framework of the theory and practice of adult mentoring in academic and workplace contexts and also yields a catalog of evidence-based mentoring best practices.

By providing a picture of the state of development in mentoring research and identifying gaps in the literature, it creates a basis upon which the field can build a comprehensive research agenda for the future, which will enrich the field and our understanding of mentoring programs, processes and relationships.

Going forward with the outcomes identified, group learning functions were organized to achieve this paper's desired result: a taxonomy of mentoring best practices.

The functions provided established participants with an introduction to the mentoring phenomena, background, the problem of study, significance, research questions, framework, and overview of the methodology initially employed in this study.

Literature research was expanded regarding the origins of mentoring and placing mentoring in organizations through the lens of functionalist, engagement, evolutionary, and revolutionary mentoring approaches (Brockbank & McGill, 2006). Mentoring as a learning alliance was explored and mentoring contributions to the learning organization developed.

The bibliography of 500 books (Appendix A) and the annotated bibliography of 588 articles in mentoring (Appendix B) were used to situate mentoring literature in organizational contexts using grounded theory and research synthesis methodologies, techniques, and procedures.

Further research should also include analysis of mentoring experiences to increase our understanding of the apprenticeship model and its relation with modern mentoring theories, lessons learned, and transference to improve formal mentoring programs. After the analysis of 467 mentoring definitions, a structural framework to define mentoring and a comprehensive list of elements to operationalize the construct should be considered along with a model to differentiate mentoring from other developmental relationships.

Categorized in learning, developmental, and social theories, an understanding of adult mentoring contributes to the overall mentoring theory. It provides the theoretical foundation for future empirical work, adding to the framework to extend our understanding of new forms of mentoring relationships. Further studies should take into

account the context and characteristics of participants for the development and advancement of the field of adult mentoring.

Using data mining techniques, the list of benefits and outcomes of adult mentoring should be expanded providing the foundation for empirical testing across settings. As well, the use of Ragins and Verbos' (2007) model of a continuum of mentoring relationships should be used for further evaluation.

This study makes an important contribution to the field by advancing a framework and baseline for discussing and further developing the knowledge base in this emergent field.

Appendix A

Book List of Mentoring and Associated Fields of Study

1. Abbott, I. O. (2000). *The lawyer's guide to mentoring*. Washington, DC: National Association for Law Placement.
2. Adey, M., Early, F. & Foster, M. (2000). *Mentors handbook*. St. Albans: Hertfordshire TEC.
3. Adey, M., Early, F. & Langridge, K. (2000). *Mentees handbook*. St. Albans: Hertfordshire TEC.
4. Adey, M., Early, F. & Langridge, K. (2000). *Mentoring schemes: A practical guide to running successful schemes*. St. Albans: Hertfordshire TEC.
5. Alexander, D. (1992). *An investigation of deans' perceptions of attributes present in the mentor/mentee relationship: A nursing study*. Thesis (Ph.D.) University of Texas at Austin, 1986.
6. Allen, T. & Eby, L. (2010). *The Blackwell handbook of mentoring: A multiple perspectives approach*. Oxford: Wiley-Blackwell.
7. Allen, T., Finkelstein, L. & Poteet, M. (2009). *Designing workplace mentoring programs: An evidence-based approach*. Chichester, U.K.: Wiley-Blackwell.
8. Alleyne, A. (2003). *What makes mentoring effective? Behavior analytic strategies as key components of successful mentor-mentee relationships: a pilot study*. Thesis (M.A.) University of Southern California, 2003
9. Alred, G., Garvey, B., Smith, R. & Hailstone, P. (2006). *The mentoring pocketbook*. Management Pocketbook Series. Alresford: Management Pocketbooks.

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11. Anderson, K. & Reese, R. (1999). *Spiritual mentoring: A guide for seeking and giving direction*. Downers Grove, IL: InterVarsity Press.

12. Anderson, M. (2008). *Beneficial induction services for Georgia teachers*. Thesis (Ed.D.) Georgia Southern University, 2008.

13. Arthur, J., Davison, J. & Moss, J. (1997). *Subject mentoring in the secondary school*. London: Routledge.

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17. Australia. (2003). *Early intervention: Youth mentoring programs: An overview of mentoring programs for young people at risk of offending*. Canberra, A.C.T.: Australian Government Attorney-General's Department.

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19. Bartell, C. (2005). *Cultivating high-quality teaching through induction and mentoring*. Thousand Oaks, CA: Corwin Press.

20. Bavister, S. & Vickers, A. (2005). *Coaching*. London: Teach Yourself.

21. Bayley, H., Chambers, R. & Donovan, C. (2004). *The good mentoring toolkit for healthcare*. Oxford: Radcliffe Pub.

22. Becker, J. (1998). *Mentoring high-risk kids*. Center City, MN: Johnson Institute.

23. Bell, C. (1996). *Managers as mentors: Building partnerships for learning*. San Francisco, CA: Berrett-Koehler.

24. Bellm, D., Whitebook, M. & Hnatiuk, P. (1997). *The early childhood mentoring curriculum*. Washington, DC: National Center for the Early Childhood Work Force.

25. Benson, A. & Allsop, T. (1996). *Mentoring for science teachers*. Bristol, PA: Open University Press.

26. Bernatz, R. (1994). *Authentic mentoring: A study of complex mentoring relationships within professional and business environments*. Thesis (Ph.D.) University of Southern California.

27. Bey, T. & Holmes, C. (1990). *Mentoring: Developing successful new teachers*. Reston, VA: Association of Teacher Educators.

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37. Boags, R. (1995). *Mentoring: Participant's guide*. Castro Valley, CA: Leadership Technologies.

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39. Bolt, P. (2000). *Coaching for growth: How to bring out the best in your team and yourself*. Dublin: Oak Tree.

40. Boreen, J. (2009). *Mentoring beginning teachers: Guiding, reflecting, coaching*. Portland, ME: Stenhouse.

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Appendix B

Annotated Bibliography of Research Articles in Mentoring and Associated Disciplines

Abell, S. K., D. R. Dillon, et al. (1995). "Somebody to count on - Mentor/Intern relationships in a beginning teacher internship program." Teaching and Teacher Education **11**(2): 173-188.

The purpose of this qualitative interview study was to illuminate mentor and intern participants' relationships in one state-mandated beginning teacher internship program. We analyzed interview data from 29 mentors and interns using within- and cross-case analysis and generated categories and properties with supporting interview excerpts to show how mentors and interns interpreted and adapted their roles. Findings of the study indicate that mentors and interns jointly construct their relationships; these relationships are undergirded by the respect and trust the two individuals have for each other. Furthermore, interns appear to need mentors who first, and foremost, support them as fledgling teachers. Interns also need mentors who assume flexible roles and who adapt their roles based on interns' needs.

Achinstein, B. and S. Z. Athanases (2005). "Focusing new teachers on diversity and equity: Toward a knowledge base for mentors." Teaching and Teacher Education **21**(7): 843-862.

New teachers in the US often are unprepared to meet the needs of culturally and linguistically diverse students. Preparing teachers for diversity has generated widespread interest in mentoring, yet little research has explored a knowledge base for equity-focused mentoring. Drawing on expertise of leading mentor practitioners and a case study, this article builds a framework for what mentors need to know and be able to do to focus new teachers on equity. Mentors need a bi-level and multi-domain knowledge base, targeting both students and teachers. Using a bifocal perspective, mentors view the new teacher up close, but also focus on the larger picture of students. Analyses delineate challenges and tensions in tapping this knowledge base in the action of mentoring. © 2005 Elsevier Ltd. All rights reserved.

Achinstein, B. and A. Barrett (2004). "(Re)framing classroom contexts: How new teachers and mentors view diverse learners and challenges of practice." Teacher's College Record **106**(4): 716-746.

Research on new teachers identifies two critical challenges in relation to how novices view their students: "practice shock" that results in an over-focus on controlling students and a cultural mismatch that causes novices to see diversity as a problem. This article explores how mentoring strategies intervene at this critical phase, influencing novices' beliefs about students and teaching practices. This study examined 15 new teacher-mentor pairs over 2 years in northern California through mentoring conversations, classroom observations, and interviews with mentors and novices working with culturally and linguistically diverse elementary students. Drawing on sociological, organizational, and new

teacher educational literature, the study explores how novices and mentors come to "frame" and negotiate student diversity in the classroom. The authors describe three ways of viewing classroom relations that the new teachers and mentors used - managerial, human relations, and political. This article challenges current thinking about novice development by revealing how mentors offer new teachers a repertoire of frames to diagnose challenges and develop alternative approaches to meet the needs of diverse students.

Alleman, E., J. Cochran, J. Doverspike and I. Newman. (1984). "Enriching mentoring relationships." Personnel and Guidance Journal **62**(6): 329-332.

This article focuses on counselors' use of new research on mentoring relationships. The research indicated that mentoring is a behavioral phenomenon not dependent on personal traits. Some other common assumptions, such as the assumption that a mentor or mentee's type determined the success of the relationship or that mentoring pairs should be matched via characteristics such as gender were unsupported.

Allen, K., S. Jacobson, et al. (1995). "African American women in educational administration: The importance of mentors and sponsors." Journal of Negro Education **64**(4): 409-422.

Thirty-eight questionnaires and eight in-depth interviews were obtained from a convenience sample of aspiring African American women school administrators in western New York State. Expectancy theory was used to analyze their responses. Two key findings emerged: (a) although the subjects perceived race as a major obstacle to promotion, they did not view gender as a serious barrier; and (b) though these women had little trouble forming supportive relationships, mentors and sponsors-people who provide moral support and genuine opportunities for advancement-were hard to find. The article concludes by recommending that university-based educational administration preparation programs play a more active role in the sponsorship of their African American women students and graduates and providing suggestions for accomplishing this.

Allen, T. D. (2003). "Mentoring others: A dispositional and motivational approach." Journal of Vocational Behavior **62**(1): 134-154.

Dispositional and motivational variables related to the propensity to mentor others and to the provision of career and psychosocial mentoring were examined. Results indicated that prosocial personality variables (other-oriented empathy, helpfulness) related to willingness to mentor others and also accounted for unique variance beyond variables associated with life and career stages. Other-oriented empathy related to actual experience as a mentor. Results also indicated that motives for mentoring others differentially related to psychosocial and career mentoring. (C) 2002 Elsevier Science (USA). All rights reserved.

Allen, T. D. (2004). "Protégé selection by mentors: Contributing individual and organizational factors." Journal of Vocational Behavior **65**(3): 469-483.

Protégé selection was examined in a laboratory experiment and a field study of

experienced mentors. The results from both studies indicated that protégé willingness to learn was a critical component of protégé selection. Results of the field study also revealed that organizational rewards for developing others related to the influence protégé ability and willingness to learn had on protégé selection. Finally, the field study indicated that mentor motives for mentoring others differentially related to the importance protégé ability and willingness to learn had on protégé selection. Specifically, mentors motivated by self-enhancement were more likely to indicate that protégé ability was important in their selection of protégé, whereas mentors motivated by intrinsic satisfaction were more likely to indicate that protégé willingness to learn was important in their selection of protégé. © 2003 Elsevier Inc. All rights reserved.

Allen, T. D., R. Day, et al. (2005). "The role of interpersonal comfort in mentoring relationships." Journal of Career Development **31**(3): 155-169.

This research examined interpersonal comfort as a potential mediating mechanism in mentoring relationships. Results indicated that interpersonal comfort mediated the relationship between gender similarity and protégé reports of career and psychosocial mentoring. Contrary to prediction, interpersonal comfort did not mediate relationships involving mentorship type (i.e., formal versus informal). However, we did find that informal mentoring and interpersonal comfort were positively associated with career mentoring. The research helps illustrate the important role that interpersonal comfort plays in the mentoring process.

Allen, T. D. and L. T. Eby (2008). "Mentor commitment in formal mentoring relationships." Journal of Vocational Behavior **72**(3): 309-316.

This research examined the role of mentor commitment relative to protégé perceptions of relationship quality within formal mentoring programs. Based on a matched sample of 91 mentors and protégés, the results indicated that mentor commitment related positively to protégé reports of relationship quality. This relationship was stronger for male protégés than for female protégés. The results indicated that protégés reported higher quality relationships when mentors underestimated their commitment to the relationship relative to the protégés estimate of mentor commitment. Suggestions for future research are offered. © 2007 Elsevier Inc. All rights reserved.

Allen, T. D., L. T. Eby, et al. (2006). "Mentorship behaviors and mentorship quality associated with formal mentoring programs: Closing the gap between research and practice." Journal of Applied Psychology **91**(3): 567-578.

Formal mentoring programs continue to gain popularity within organizations despite limited empirical research regarding how these programs should be designed to achieve maximum effectiveness. The present study examined perceived design features of formal mentoring programs and outcomes from both mentor and protégé perspectives. The outcomes examined were career and psychosocial mentoring, role modeling, and mentorship quality. In general, the results indicated that perceived input into the mentoring process and training perceived as high in quality were consistently related to the outcome variables.

Implications for the design of formal mentoring programs and future theory development are discussed.

Allen, T. D., L. T. Eby, et al. (2006). "The relationship between formal mentoring program characteristics and perceived program effectiveness." Personnel Psychology **59**(1): 125-153.

Formal mentoring programs continue to gain popularity within organizations despite limited empirical research regarding how these programs should be designed to achieve maximum effectiveness. This study examined design features of formal mentoring programs and perceived program effectiveness from both mentor and protégé perspectives. Mentor commitment and program understanding were examined as mediators. Substantial support for the proposed path analytic model was found. These results help begin to bridge the gap between science and practice concerning the design of formal mentoring programs.

Allen, T. D., L. T. Eby, et al. (2008). "The state of mentoring research: A qualitative review of current research methods and future research implications." Journal of Vocational Behavior **73**(3): 343-357.

Research regarding mentoring relationships has flourished during the past 20 years. This article reviews the methodology and content of 200 published mentoring articles. Some of the major concerns raised in this review include over reliance on cross-sectional designs and self-report data, a failure to differentiate between different forms of mentoring (e.g., formal versus informal), and a lack of experimental research. Implications and suggestions for future research are offered. © 2007 Elsevier Inc. All rights reserved.

Allen, T. D. and L. M. Finkelstein (2003). "Beyond mentoring: Alternative sources and functions of developmental support." Career Development Quarterly **51**(4): 346-355.

Content analyses were used to explore alternative sources and functions of developmental support other than mentoring among nonfaculty university employees. The majority of participants reported that they had an alternative source of developmental support outside of a mentoring relationship, that the developmental functions (i.e., kinds of support) provided by these sources varied, and that there were differences in sources and functions by participant age and gender. The alternative source of support most frequently mentioned was coworkers. The results also suggested that alternative sources of support might provide many of the functions associated with traditional mentors, although the full range may not be represented.

Allen, T. D., H. A. M. Johnson, et al. (2009). "Mentoring and Protégé Narcissistic Entitlement." Journal of Career Development **35**(4): 385-405.

The relationship between protégé narcissistic entitlement and protégé mentoring outcomes is examined among a total sample of 132 protégés employed in a variety of settings. Narcissistic entitlement (NE) refers to a dispositional variable that reflects preoccupation with the expectation of special and preferential treatment from others. Results indicate that protégés with greater NE report

relationships of shorter duration, less career mentoring support, lower relationship quality, and greater negative mentoring experiences than do protégés with lesser NE. Additionally, protégé NE moderated the relationship between mentor commitment and relationship quality such that the relationship was stronger for protégés higher in NE than for protégés lower in NE. NE was not related to whether participants had experience as a protégé. Implications include the need for expanded education regarding mentoring relationships that take into account the role the individual plays in the relationship.

Allen, T. D., E. Lentz, et al. (2006). "Career success outcomes associated with mentoring others - A comparison of mentors and no mentors." Journal of Career Development **32**(3): 272-285.

The present study examines the relationship between four career success variables-salary, promotions, subjective career success, and job satisfaction with experience as an informal mentor among employees of a health care organization. Regression results indicate that individuals who serve as a mentor to others report greater salary, greater promotion rates, and stronger subjective career success than do individuals without any experience as a mentor to others. The results provide preliminary evidence supporting the notion that career benefits are associated with serving as a mentor to others.

Allen, T. D. and M. L. Poteet (1999). "Developing effective mentoring relationships: Strategies from the mentor's viewpoint." Career Development Quarterly **48**(1): 59-73.

Companies are increasingly using mentoring as a means of fostering employee learning and development. Limited research exists from the perspective of the mentor on these relationships. This article presents the results of a qualitative study that investigated the characteristics that the ideal mentor should possess and ways that both mentors and protégés can make mentoring relationships most effective. Findings from the study are used to frame suggestions for future research and practice.

Allen, T. D. and M. L. Poteet (2011). "Enhancing Our Knowledge of Mentoring With a Person-Centric Approach." Industrial and Organizational Psychology-Perspectives on Science and Practice **4**(1): 126-130.

The intent of this commentary is to illustrate how some of the ideas discussed in Weiss and Rupp (2011) can be applied to the study of mentoring relationships. Mentoring has been defined as a developmental relationship between an individual (protégé) and a more senior and influential individual (mentor; Dreher & Cox, 1996). Mentoring is touted as a popular tool for employee development within organizations as well as a key means by which individuals achieve personal and career development across the life span (Allen & Eby, 2007). Mentoring relationships have been associated with a variety of beneficial outcomes for protégés (Allen, Eby, Poteet, Lentz, & Lima, 2004). But what makes some workplace mentoring relationships more effective and meaningful than others? Our view is that despite several decades of research and hundreds of articles, we know little about the mechanisms that give rise to effective and

individually transformative mentoring. This lack of knowledge can be attributed, at least in part, to a reliance on the prevailing research paradigm that Weiss and Rupp describe.

Allen, T. D., M. L. Poteet, et al. (1997). "The mentor's perspective: A qualitative inquiry and future research agenda." Journal of Vocational Behavior **51**(1): 70-89.

The present study employed a qualitative research strategy for examining mentoring from the perspective of the mentor. A total of 27 mentors participated in in-depth interviews regarding their experiences as a mentor. The research focused on investigating issues related to the decision to mentor others. To meet this objective, four major areas of inquiry were examined: individual reasons for mentoring others, organizational factors that influence mentoring, factors related to mentor-protégé attraction, and outcomes associated with mentoring for the mentor. A number of interesting patterns of results were revealed through content analysis of the interview responses. Based on the results and an integration of other theoretical research, a series of propositions were presented to stimulate future research efforts. © 1997 academic Press.

Allen, T. D., J. E. A. Russell, et al. (1997). "Formal peer mentoring - Factors related to protégés' satisfaction and willingness to mentor others." Group & Organization Management **22**(4): 488-507.

This study investigated several factors related to protégés' satisfaction with a formal peer-mentoring program. These included the extent to which mentoring behaviors met career-related needs and psychosocial needs and the amount of time spent with the mentor. In addition, demographic variables and satisfaction with the present and previous mentoring experience were examined for their relationship to protégés' willingness to mentor others in the future. Results indicated that the degree of career and psychosocial functions served by a mentor were strongly related to protégés' satisfaction with the mentoring relationship. Also, willingness to mentor others in the future was related to protégés' gender and to protégés' satisfaction with their current mentoring experiences. Implications and directions for future research are addressed.

Allen, T. D., K. M. Shockley, et al. (2010). "Protégé anxiety attachment and feedback in mentoring relationships." Journal of Vocational Behavior **77**(1): 73-80.

A model focused on protégé anxious attachment and feedback in mentoring relationships was tested with a sample of matched doctoral student protégés and their faculty mentors. Results show that protégé anxious attachment was associated with less feedback seeking and less feedback acceptance. Protégé feedback acceptance was associated with both the quality and frequency of feedback provided by the mentor. Frequency, but not quality of mentor feedback, was associated with protégé scholarly productivity. Results underscore the value of focusing on specific behavioral aspects of the mentoring process. © 2010 Elsevier Inc. All rights reserved.

Allen, T. D., M. A. Smith, et al. (2009). "Organization-Level Mentoring and

Organizational Performance Within Substance Abuse Centers." Journal of Management **35**(5): 1113-1128.

Individual benefits to those who have been mentored are well documented. The present study demonstrates that organization-level mentoring relates to overall organizational performance. In a study of 589 employees of 39 substance abuse treatment agencies, the authors found that agencies with a greater proportion of mentored employees also reported greater overall agency performance. Organization-level mentoring also related to organization-level job satisfaction, organization-level organizational citizenship behavior, and organization-level learning. Results provide justification for organizational investment of time and resources into efforts designed to facilitate mentoring, as well as support the notion that mentoring may provide a competitive advantage to organizations.

Alonso, M. A., G. Castaño, et al. (2010). "Assessment of the Efficacy of a Peer Mentoring Program in a University Setting." Spanish Journal of Psychology **13**(2): 685-696.

In the present study, the efficacy of a formal mentoring program applied to fourth and fifth year students of the Psychology Faculty of the Complutense University is assessed. In this program, fifth-year students took on the role of mentors and fourth-year students, the role of mentees. To assess the efficacy, the group of mentors was compared with a group of non-mentors and the group of mentees with a group of non-mentees, before and after the program, taking into account the variables related to career development function (knowledge acquired of the academic setting and satisfaction with the career of Psychology) and the psychosocial function (self-concept, self-esteem, self-efficacy, and involvement). The results show a statistically significant increase in the knowledge acquired about the academic setting as a consequence of the program, both in the group of mentors and in the group of mentees. Moreover, the mentors achieved a better average grade in the subjects of the specialty of Work Psychology. There were no statistically significant differences between the experimental group and the control group in satisfaction with the career of Psychology, or in self-concept, self-esteem, or self-efficacy.

Alvarez, A. N., A. W. Blume, et al. (2009). "Tapping the Wisdom Tradition: Essential Elements to Mentoring Students of Color." Professional Psychology-Research and Practice **40**(2): 181-188.

The relevance of race, ethnicity, and culture in the mentor-mentee relationship is the essence of this article. The authors argue that diversity education for those mentoring students of color merits an additional level of required expertise in the following key areas: culture and academia, shared/assumed existential posture, racial discrimination, race and ethnic self-awareness, and relationship and process. With support from APA publications, the authors highlight specific academic and professional concerns for students of color. to work toward effective mentoring of culturally diverse students. For prospective mentors of students of color, the authors make recommendations related to engagement, instruction, and integration of personal and professional identity. Further, the

authors make recommendations for the management of experiences with discrimination and the recognition of racial identity and racial awareness in the mentor-mentee relationship.

Alvermann, D. E. and G. G. Hruby (2000). "Mentoring and reporting research: A concern for aesthetics." Reading Research Quarterly **35**(1): 46-63.

In this article, we present the results of two studies on the mentoring of teacher educators in literacy education, and model alternative ways of representing and evaluating research data. The first study is based on a survey of Noah American teacher educators and their beliefs about how they were mentored as students and how they in turn mentor their graduate advisees. The data from this first study are presented as a traditional quantitative analysis. The second study is a report of six site visits to institutional locations across North America where in-depth interviews were conducted with seven professors of literacy teacher education and their current advisees. In keeping with the interpretive practices of one such professor whose site visit we selected to illustrate these practices, the write-up of said location is crafted as an aesthetic narrative. Our method of writing over one another's site visit data is also illustrated. We close by articulating how these alternative forms of representing data capture the aesthetics of mentoring graduate students in literacy teacher education. In the spirit of modeling these new forms, we structure the paper as a whole with the trope of the triptych, a presentational art form adapted from a previous millennium that takes the form of three illustrative panels hinged together to tell a story. In our triptych, the first panel is the quantitative survey study, the second panel our qualitative site visits, and the third our interpretive rationale for attending to aesthetics in reporting research on mentoring in literacy teacher education. Explanatory hinges hold the text together and facilitate the transition between panels.

Anderson, D. R. (2005). "The importance of mentoring programs to women's career advancement in biotechnology." Journal of Career Development **32**(1): 60-73.

Mentoring programs provide benefits to mentors, protégés, and organizations, but-not all organizations have such programs in place. In those that do, women's exclusion from informal networks limits their visibility and, in turn, their chances of acquiring a mentor. This poses a barrier to women's career advancement, as does the absence of female role models at senior executive levels. The biotechnology industry provides a context in which many women have penetrated the glass ceiling and reached the upper echelons of their organizations. The unstructured and dynamic nature of most biotechnology companies, along with the presence of women at the top levels of the organization, make an appropriate context for the implementation of formal mentoring programs to facilitate women's upward mobility.

Anderson, E. M. and A. L. Shannon (1988). "Toward a conceptualization of mentoring." Journal of Teacher Education **39**(1): 38-42.

Anderson and Shannon argue that effective mentoring programs must be grounded on a clear and strong conceptual foundation. Such a foundation includes

a carefully articulated approach to mentoring which would include de lineation of: a definition of the mentoring relationship, the essential functions of the mentor role, the activities through which selected mentoring functions will be expressed, and the dispositions that mentors must exhibit if they are to carry out requisite mentoring functions and activities.

Arai, M., A. Billot, et al. (2001). "Learning by helping: a bounded rationality model of mentoring." Journal of Economic Behavior & Organization **45**(2): 113-131.

Within an organization, a bounded rational principal organizes a promotion contest based on a sequence of rests regarding candidates' relative performances. We assume the principal to suffer from *limited ability to rank* the performances, only identifying the best in each test. Furthermore, he satisfies the expected profit from promotion, designing the contest such that expected gains do not decrease with the information generated by additional tests. Then, mentoring is shown to improve the information about candidates' ability when the principal offers help to the current best candidate provided by a manager promoted after a similar contest. © 2001 Elsevier Science B.V. All rights reserved.

Aryee, S., S. Lo, et al. (1999). "Antecedents of early career stage mentoring among Chinese employees." Journal of Organizational Behavior **20**(5): 563-576.

This study examined the mediating influence of protégé-initiated mentoring relationships on the relationship between personality and situational characteristics and mentoring received. Data were obtained from Hong Kong Chinese graduate employees (N = 184) in their early career stage. Results of the regression analysis showed that protégé-initialed mentoring relationships mediated the relationship between the personality (extraversion) but not the situational (individual development culture and opportunities for interactions on the job) characteristics and mentoring received. In other words, extraversion was indirectly related to mentoring received through protégé-initiated mentoring relationships but individual development culture and opportunities for interactions on the job were directly related to mentoring received. Additionally, opportunities for interactions on the job indirectly influenced mentoring received through protégé-initiated mentoring relationships. Limitations of the study, implications of the findings and directions for future research are discussed. © 1999 John Wiley & Sons, Ltd.

Aryee, S., T. Wyatt, et al. (1996). "Early career outcomes of graduate employees: The effect of mentoring and ingratiation." Journal of Management Studies **33**(1): 95-118.

Underpinned by the growing recognition of influence processes or a careerist orientation in the determination of career success, this study examined the effect of career-oriented mentoring, ingratiation and their interaction term on the career success measures of salary, number of promotions received and career satisfaction. Data were obtained through structured questionnaires from graduate employees (N = 432) working full-time in Hong Kong. Results of the ordinary least-squares regression analyses revealed a non-significant effect of career-oriented mentoring, ingratiation and their interaction term on salary. Career-

oriented mentoring was, however, significantly positively related to number of promotions received and career satisfaction. Although the results reinforced the dominance of the traditional determinants of career success, the significant effect of career-oriented mentoring on two of the career success measures may help to paint a more realistic picture of the process of career success in organizations. Limitations of the study, directions for future research and implications of the findings are discussed.

Assel, M. A., S. H. Landry, et al. (2007). "An evaluation of curriculum, setting, and mentoring on the performance of children enrolled in pre-kindergarten." Reading and Writing **20**(5): 463-494.

An alarming number of American pre-school children lack sufficient language and literacy skills to succeed in kindergarten. The type of curriculum that is available within pre-kindergarten settings can impact children's academic readiness. This work presents results from an evaluation of two language and literacy curricula (i.e., Let's Begin with the Letter People and Doors to Discovery) from a random assignment study that occurred within three settings (i.e., Head Start, Title 1, and universal pre-kindergarten) and included a control group. The design included a mentoring and non-mentoring condition that was balanced across sites in either curriculum condition. A pre and post-test design was utilized in the analyses, with children (n = 603) tested before the intervention and at the end of the year. Multilevel growth curve modeling, where the child outcomes (dependent measures) are modeled as a function of the child's level of performance and rate of growth between pre and post-testing, was used for all analyses. Results indicated that in many key language/literacy areas, the skills of children in classrooms using either one of the target curricula grew at greater rates than children in control classrooms. This was especially true in the Head Start programs. The findings from this study indicate that at-risk children can benefit from a well-specified curriculum. Additionally, findings demonstrate that a well-detailed curriculum appeared to be less important for children from higher income families. The impact of mentoring was less clear and seemed dependent on the type of skill being measured and type of program.

Athanases, S. Z., J. Abrams, et al. (2008). "Curriculum for mentor development: problems and promise in the work of new teacher induction leaders." Journal of Curriculum Studies **40**(6): 743-770.

This study examines four case studies of mentors of new teachers who assumed leadership of teacher induction programmes. Using cycles of action research conducted in a teacher induction leadership network, the case-study authors inquired into the features of the mentor curriculum. Cross-case analyses suggest the need for three elements of mentor curriculum. Tools, scripts, and routines can support the work, but generic scaffolds need to be adapted and tailored to local needs. In a time of standards reform and high-stakes assessment in the US, the needs of new teachers should be tied to students and their learning, the ultimate target of mentor development, particularly in many urban and other high-need districts. Finally, action research and inquiry skills can enable mentors and

induction leaders to respond to data about how mentor curriculum must be tailored to the particular needs of mentors, new teachers, and students.

Athanases, S. Z. and B. Achinstein (2003). "Focusing new teachers ion individual and low performing students: The centrality of formative assessment in the mentor's repertoire of practice." Teachers College Record **105**(8): 1486-1520.

Mentoring novice teachers often features buddy support, technical advice, and classroom management tips to meet teacher-centered concerns of survival. Such mentoring aligns with conventional models of teacher development that describe the novice concerned with self-image, materials and procedures, and management, and only after the initial years, able to focus on individual student learning. Drawing on the wisdom of practice of 37 experienced teacher induction leaders and case studies of mentor/new teacher pairs, this study found that mentors can interrupt that tendency among new teachers, focusing them on the learning of individual students, especially those underperforming. For this work, mentors tap knowledge of student and teacher learners, pedagogy for classrooms and for tutoring teachers, and especially multilayered knowledge and abilities in several domains of assessment. These include assessment of students, alignment of curriculum with standards, and formative assessment of the new teacher. Skillful use of this knowledge can bring individual student learning into focus and help new teachers generate methods for shaping instruction to meet students' varied learning needs. These results challenge developmental models of teaching and conservative mentoring practices, calling for articulation of a knowledge base and relevant mentor development to focus new teachers early on individual student learning.

Athey, S., C. Avery, et al. (2000). "Mentoring and diversity." American Economic Review **90**(4): 765-786.

We study how diversity evolves at a firm with entry-level and upper-level employees who vary in ability and "type" (gender or ethnicity). The ability of entry-level employees is increased by mentoring. An employee receives more mentoring when more upper-level employees have the same type. Optimal promotions are biased by type, and this bias may favor either the minority or the majority. We characterize possible steady states, including a "glass ceiling, " where the upper level remains less diverse than the entry level. A firm may have multiple steady states, whereby temporary affirmative-action policies have a long-run impact. (JEL J71, J41, D20).

Atjonen, P. (2012). "Student Teachers' Outlooks upon the Ethics of Their Mentors during Teaching Practice." Scandinavian Journal of Educational Research **56**(1): 39-53.

The aim of this study is to describe student teachers' experiences of their mentors' ethical decisions during their teaching practice sessions for teacher education. The data was gathered from 201 prospective class and subject teachers who described from an ethical viewpoint both positive and negative mentoring experiences. The data analysis is mainly quantitative in nature. According to the results, an ethically successful mentor gives feedback, is student-centered, is fair and just,

gives advice, gives enough support and listens carefully, is both flexible and demanding, and is a positive person. An ethically unsuccessful mentor is authoritative, refuses to give feedback, treats student teachers disrespectfully, is hard and critical, interrupts lessons with insufficient reason, discusses delicate and private issues with outsiders, and neglects certain basic tasks. These main findings are significantly supported by previous investigations.

Atkinson, D. R., A. Casas, et al. (1994). "Ethnic-minority psychologists - Whom they mentor and benefits they derive from the process." Journal of Multicultural Counseling and Development **22**(1): 37-48.

Ethnic minority psychologists were found to be prolific mentors of both ethnic minority and European American protégés. Mentoring benefits were found to not be related to ethnic similarity.

Awaya, A., H. McEwan, et al. (2003). "Mentoring as a journey." Teaching and Teacher Education **19**(1): 45-56.

The role of the mentor as opposed to that of co-operating teacher is increasingly viewed as important in the process of guiding student teachers' work in the field. This paper focuses attention on mentoring as a relationship rather than a role with a set of preconceived duties. In particular, mentoring is conceived as journey that describes a unique relationship between mentor and student teacher. The journey involves the building of an equal relationship characterized by trust, the sharing of expertise, moral support, and knowing-when to help and when to sit back. © 2002 Elsevier Science Ltd. All rights reserved.

Bahniuk, M. H., J. Dobos, et al. (1990). "The impact of mentoring, collegial support, and informational adequacy on career success - A replication." Journal of Social Behavior and Personality **5**(4): 431-451.

This study is a replication and extension of a previous study investigating the relationship of mentoring and other communication variables to faculty success, as defined by a set of perceptual, attitudinal and performance indicators. The current study investigates the pattern of this relationship among business professionals (N = 258), selected by random probability procedures from a local data bank in a major metropolitan area. In addition to mentor/protégé, collegial/task and collegial/social support, a fourth factor labeled teacher/coach support emerged. Results supported the previous study, showing that patterns of communication and success differed for males and females with and without mentors. Canonical analysis also supported the direct relationship between the communication variable and success indicators and yielded two additional indirect relationships characteristic of early career development.

Bainer, D. L. and C. Didham (1994). "Mentoring and other support behaviors in elementary schools." Journal of Educational Research **87**(4): 240-247.

The purpose of this study was to identify the dimensional structure of mentoring and other support behaviors that occur naturally among adults in elementary school settings. A questionnaire about support relationships was developed and

administered to a statewide random sample of teachers (N = 488). Six separate factors emerged as dimensions of support among teachers: Mentoring, Supporting, Collaborating, Career Strategizing, Supervising, and Grounding. The study lends credence to the idea of multidimensional support within an elementary school organization characterized by relationships that are distinct from those described in business and academic settings. The findings suggest that in elementary school settings a broad base of support may be preferable to having a single exclusive mentor and that formalized programs should be based on these natural informal networks.

Baker, B. T., S. P. Hocevar, et al. (2003). "The prevalence and nature of service academy mentoring: A study of Navy midshipmen." Military Psychology **15**(4): 273-283.

Mentoring relationships (mentorships) are often considered essential for the effective career development of junior professionals in a range of fields. Although research on mentorships in the military indicates that mentoring correlates with both success and satisfaction, we know little about the mentorships of officers in training. In this study, 568 midshipmen at the United States Naval Academy (USNA) responded to a survey regarding their experience of having been mentored at USNA. Results indicated that 45% of midshipmen are mentored and that women are more likely to have a mentor (63%) than men (42%). Mentored midshipmen were significantly more satisfied with USNA, viewed mentorships as more important, and were more active mentors themselves. Salient mentor characteristics and functions were highly correlated with both personal and professional development. The authors discuss the implications of these findings and offer recommendations for extending this research.

Ballantyne, R., B. Hansford, et al. (1995). "Mentoring beginning teachers – A qualitative analysis of process and outcomes." Educational Review **47**(3): 297-307.

Sixteen beginning teachers commencing their first year of teaching in Queensland Catholic schools, together with nine experienced teachers appointed as their mentors, provided detailed written reflections on their experiences during the beginners' first year of teaching. Using their responses as data, the nature and value of the buddy mentoring relationship are analyzed in relation to the needs, concerns and professional development of beginning teachers as they progress through the year. Patterns and themes emerging from the data are described qualitatively and illustrated by direct quotations from participants' responses. Conclusions are drawn regarding the roles and functions of mentors which are most helpful at various stages, the benefits and limitations of buddy mentoring in relation to these functions and issues involved in the development of the mentoring relationship over the course of the first teaching year.

Baranik, L. E., E. A. Roling, et al. (2010). "Why does mentoring work? The role of perceived organizational support." Journal of Vocational Behavior **76**(3): 366-373.

The authors examined the mediating role of perceived organizational support in the relationship between mentoring support received and work attitudes. Perceived organizational support partly mediated the relationship between

specific types of mentoring support and job satisfaction and affective organizational commitment. Specifically, sponsorship, exposure and visibility, and role modeling appear to be related to job satisfaction and organizational commitment through perceived organizational support. Perceived organizational support did not appear to mediate the relationship between other specific forms of mentoring support and job satisfaction and organizational commitment. © 2009 Elsevier Inc. All rights reserved.

Bard, M. and E. Moore (2000). "Mentoring and Self-Managed Learning: professional development for the market research industry." International Journal of Market Research **42**(3): 255-275.

Due to the rapid rate of change, it is incumbent on managers to be continuously learning about the new technologies, effect of globalization, the changing needs of clients and the new conditions of business. This demand for constant learning can represent a significant burden on management. After the implementation of a mentoring program and a series of learning initiatives, the authors of this article anticipate the program providing powerful tools to help managers deal with the pace of learning which they are required to keep, and also that the program should not take up a significant amount of time for upkeep.

Barrett, T. (2000). "Studio critiques of student art: As they are, as they could be with mentoring." Theory into Practice **39**(1): 29-35.

Art classroom critiques are a mixed bag, which can often discourage or humiliate art students. Both professors and students interviewed for the article discuss common conceptions of dysfunctional or harmful critique, agreeing that spiteful and destructive critique, in addition to the professor attempting to use the classroom to bolster their own ego, creates serious problems in the classroom. The author of this article asserts that concepts borrowed from mentoring, such as adaptive critique that is specialized to each student being critiqued, allowing gender diversity in conceptions of mentoring, and shared responsibility for critiques and improvement, will allow art classrooms to be more productive spaces.

Bartunek, J. M., K. E. Kram, et al. (1997). "A group mentoring journey into the department chair role." Journal of Management Inquiry **6**(4): 270-279.

This article explores group mentoring at Boston College. As a result, common dilemmas in academic departments were identified, the usefulness of group mentoring process for fostering learning was explored, and conclusions derived articulation of several conditions that seem necessary for an effective group mentoring process, including the following: a group of individuals who share a common occupational role and the desire to collectively learn how to enact it more effectively; individuals who also have the relational skills to build trust and foster learning (e.g., willingness to be vulnerable, active listening, seeking and giving feedback, coaching, managing conflict and collaboration); regular opportunities for collective, structured reflection; and a shared vision for working together that includes both a clear purpose and agreement regarding how long and

in what manner they will work together.

Baugh, S. G. and E. A. Fagenson-Eland (2005). "Boundary-less mentoring: An exploratory study of the functions provided by internal versus external organizational mentors." Journal of Applied Social Psychology **35**(5): 939-955.

The changing nature of careers suggests that mentors and protégés may work in different employment settings. Little research has examined whether mentoring relationships that are interorganizational are as enriched, in terms of mentoring functions provided and received, as those that are intraorganizational. The present study examines the effect of the mentor's employment setting on both protégé and mentor reports of career support, psychosocial support, and role modeling received or provided. Data were collected via questionnaire from mentors and protégés in 2 computer technology firms. Results from a MANCOVA controlling for protégé gender and duration of relationship indicate that protégés whose mentors work in the same employment setting as themselves reported more career and psychosocial support than did protégés whose mentors work in a different setting. Results are discussed in view of current career structures.

Baugh, S. G., M. J. Lankau, et al. (1996). "An investigation of the effects of protégé gender on responses to mentoring." Journal of Vocational Behavior **49**(3): 309-323.

Review of the literature on mentoring at work reveals a paucity of studies investigating gender differences in responses to mentoring. Relations of mentoring status and protégé gender to organizational commitment, job satisfaction, career progress expectations, perceived employment alternatives, role conflict and role ambiguity are reported for a sample of 254 managers. Results indicate that having a mentor may be associated with a more positive job experience and the perception of more employment alternatives elsewhere. Implications for future research are discussed. (C) 1996 Academic Press, Inc.

Baugh, S. G. and T. A. Scandura (1999). "The effect of multiple mentors on protégé attitudes toward the work setting." Journal of Social Behavior and Personality **14**(4): 503-521.

Review of the literature on mentoring suggests that having multiple mentors may enhance mentoring outcomes. Multivariate analysis of covariance: is used to test possible effects of multiple mentors on six attitudinal outcomes-organizational commitment, job satisfaction, career expectations, role conflict, role ambiguity, and perceived employment alternatives-in a sample of 275 executives. Results of this study indicate that experiencing one or more mentoring relationships in the workplace may result in greater organizational commitment, greater job satisfaction, enhanced career expectations, increased perceptions of alternative employment, and lower ambiguity about one's work role. Role conflict may increase as the number of mentors increases beyond one, however. New areas for research suggested by these results are discussed.

Baylor, A. L. (2000). "Beyond butlers: Intelligent agents as mentors." Journal of Educational Computing Research **22**(4): 373-382.

This article discusses pedagogical issues for intelligent agents to successfully serve as mentors for educational purposes. Broader issues about the nature or persona necessary for an intelligent agent as mentor are discussed, incorporating usability and human-computer interaction issues such as the anthropomorphic qualities of the agent and the social relationship between learner and agent. Overall, to he effective for learning, it is argued that there are three main requirements for agents as mentors: 1) regulated intelligence; 2) the existence of a persona; and 3) pedagogical control.

Beasley, K., D. Corbin, et al. (1996). "'Making it happen": Teachers mentoring one another." Theory into Practice **35**(3): 158-164.

This article uses journal entries and personal testimony to discuss the process of mentoring each other between three teachers in the K-12 system. Journal entries reflect on the conversations these teachers have with one another, as well as the reflection of their efforts to teach more successfully as reflected in their observations of each other's students.

Bedient, D., V. Snyder, et al. (1992). "Retirees mentoring at-risk college students." Phi Delta Kappan **73**(6): 462-463, 466.

Southern Illinois University at Carbondale utilized a unique program for at-risk students in which students whose school ranking and academic achievements may not have merited them a place in the college classroom are matched with retired faculty in order to help them with the extra preparation necessary for success in colleges, as well as encouraging these students to stay in college. Selection of students was based on academic potential.

Beech, N. and A. Brockbank (1999). "Power/knowledge and psychosocial dynamics in mentoring." Management Learning **30**(1): 7-25.

This article presents a case study of mentoring relations in a National Health Service Trust hospital. The hospital was undergoing a programme of change, which included a considerable investment in management development supported by a mentoring programme. The research presented here included observations, interviews and research-focused discussions with managers and other participants in the mentoring programme, concentrating especially on the nature of the mentoring process and relationship. Contrasting interpretations and constructions of the meaning of the mentoring process are presented. It was found that the nature of mentoring relationships changed radically as mentees began to define themselves as being more competent and knowledgeable in management and that psychosocial functions in the mentoring relationships operated inversely to the direction of hierarchical authority present in these relationships.

Bell, A. and L. Treleaven (2011). "Looking for Professor Right: mentee selection of mentors in a formal mentoring program." Higher Education **61**(5): 545-561.

Finding a suitable mentor is crucial to the success of mentoring relationships. In the mentoring literature, however, there is conflicting evidence about the best ways to support the pairing process in organizational mentoring programs. This paper presents a detailed analysis of the pairing process in an academic mentoring

program that has implications for building a mentoring culture in higher education. The program that began with a pilot and has continued for five years with one hundred and twenty one participants was conducted with mentees selecting their own mentor from a pool of mentors who volunteered to be part of the program. In the pilot program, where mentors and mentees first met as one group, some mentees reported that the process of selecting and approaching a mentor was uncomfortable and intimidating. Nine of twenty-three potential mentees did not form mentoring relationships. Analysis of subsequent program evaluation data pointed to the importance of two factors in the pairing process: personal connections and facilitation of the selection process. This study at a research-intensive university demonstrates that when the pairing process is tailored to individual mentees, they are comfortable selecting a mentor and to then develop a successful mentoring relationship.

Bell, C. R. (1997). "The bluebirds' secret - Mentoring with bravery and balance." Training & Development **51**(2): 30-33.

The intense competition of business today dictates that learning organizations weave growth, learning, improvement, and perpetual experimentation into their cultures. Mentors become a key learning source in this environment, but combining an in-charge role with an in-sight goal calls for balance. Bell discusses how observing bluebirds train their offspring to fly can offer techniques for effective mentoring. For example, bluebirds known when to push their offspring from the nest by "watching" for certain signals that present a "teachable moment." So, too, human mentors can learn to recognize when their protégés are ripe for an advanced lesson or career move. Like the bluebirds training their charges, this process involves keeping a lookout for learning plateaus. In other words, look for signs of apathy, boredom, or dullness, and seek opportunities to foster discovery. Whenever you communicate with a protégé, ask yourself whether learning can result. Look for opportunities to support without rescuing. Instead of showing your protégé how to do something, ask what he or she thinks is the nest step. Avoid the appearance of perfection by demonstrating authenticity and realness. Show protégés our genuineness— clay feet and all. In addition, Bell offers suggestions on how to foster an open, productive mentoring relationship.

Bell, C. R. (2000). "The Mentor as Partner." Training & Development **54**(2): 52-56.

Bell begins with a story about a vacuum-traumatized parakeet as a metaphor for employees who have been similarly stunned into silence and submission by downsizing, reorganization, and other chaotic uncertainties. The question he asks is how we can get them singing again. In other words, how can we get these employees recommitted, productive, and creative? With the techniques Bell discusses, you can establish an environment in which people are prepared and able to withstand the winds of change. Bell makes the case that it takes a special kind of mentoring, pointing out that worker-survivors who bounce back are typically "perpetual learners." To increase their number, leaders have to alter their personas fundamentally, from corporate parent to compassionate partner. They must all add the role of learning coach or mentor to their repertoires, but with a

new slant. The word mentor should not conjure up “ol' Charlie and a wet-behind-the-ears young recruit.” Not all mentors are managers or supervisors, but all managers and supervisors must be mentors, Bell emphasizes. One's mentor should be one's traveling companion on the same journey of openness, equality, and sharing of knowledge and skills. It is a learning partnership, intimate and engaging. A mentor's main gifts, as Bell refers to them, are learning, advice, feedback, focus, and support. Regarding feedback in particular everyone knows that not every gift, no matter what it is, is always well received. Mentors must learn how to give feedback in the most positive way-no easy task. Mentors must be vulnerable and willing to let go when the time comes. Mentoring is not about "me guru, you greenhorn." Mentoring goes through these stages: leveling the learning field fostering acceptance and safety giving learning gifts bolstering self-direction. The culmination is growth and closure, though that doesn't mean that a mentor should cut all ties. After all, partners follow up with partners.

Bell-Ellison, B. A. and R. F. Dedrick (2008). "What do doctoral students value in their ideal mentor?" Research in Higher Education **49**(6): 555-567.

The purpose of this study was to contribute to the construct validity of the scores from Rose's (2003) 34-item Ideal Mentor Scale (IMS) and to examine whether male and female doctoral students value different attributes in their ideal mentor. Two hundred and twenty-four doctoral students from colleges (Education, Public Health, Nursing, Arts and Sciences, Engineering, and Business) throughout a large state research university participated in the study. Confirmatory factor analysis of the IMS revealed that the fit of the three-factor model (Integrity, Guidance, and Relationship) was not satisfactory. A major source of misfit involved covariance between errors of similarly worded items. Gender comparisons of the three subscales and individual items on the IMS indicated that male and female doctoral students were more alike than different regarding qualities they desire in their ideal mentor. The largest difference was observed on the item Believe in me (Integrity subscale) with female doctoral students rating this as more important than male students. The potential of the Ideal Mentor Scale for stimulating conversations about mentoring and clarifying expectations of students and faculty is discussed.

Bennetts, C. (2003). "Mentoring youth: trend and tradition." British Journal of Guidance & Counseling **31**(1): 63-76.

This article aims to encourage dialogue about the shift from traditional to contemporary mentoring and to ask what can be learned from inquiry into optimal mentor relationships and how we might utilize these findings within more formal mentoring schemes. It examines research into optimal mentor relationships and provides a model for understanding these alliances. It discusses current government initiatives, and makes recommendations and suggestions for setting up mentor programmes for young people.

Bernal, D. D., E. Aleman, et al. (2009). "Latina/o Undergraduate Students Mentoring Latina/o Elementary Students: A Borderlands Analysis of Shifting Identities and First-Year Experiences." Harvard Educational Review **79**(4): 560-585.

This article examines the experiences of first-year Latina/o undergraduates at a predominantly white institution. Through a borderlands analysis, the authors explore how these students describe their experiences participating in an ethnic studies course and mentoring Latina/o elementary schoolchildren. The authors find that these experiences served as sitios y lenguas (decolonizing spaces and discourses; Perez, 1998) in which the undergraduate students were able to reflect on the ongoing transformation of their social and political identities, revealing the complex and fluid latinidades (Latina/o identities; Latina Feminist Group, 2001) that exist among the Latina/o university students. This article explores the physical and metaphorical borders (Anzaldua, 1987) that the undergraduates occupy, navigate, and challenge while they work simultaneously as mentors in a mostly Latina/o setting and as college students on a mostly white campus.

Bettencourt, B. A., L. Bol, et al. (1994). "Psychology graduate students as research mentors of undergraduates - A national survey." Psychological Reports **75**(2): 963-970.

A survey of graduate chairpersons in psychology about the prevalence and value of mentoring relationships between psychology graduate and undergraduate students was conducted. Surveys were mailed to 235 chairpersons at colleges and universities, with 130 (55%) surveys returned. The results indicate that formal mentoring programs were rare (6%); however, a substantial percentage of respondents (75%) reported that graduate students interact informally with undergraduates on research projects. In addition, respondents estimated that a large percentage of psychology graduate students (49%) and faculty members (66%) would favor interactions in which graduate students serve as mentors to undergraduate students. Finally, possible advantages and disadvantages of such interactions are presented. Overall, respondents reported significantly more advantages than disadvantages associated with this type of mentoring relationship for both graduate (48% vs. 35%) and undergraduate students (54% vs. 19%).

Blackburn, R. T., D. W. Chapman, et al. (1981). "Cloning in academe - Mentorship and academic careers." Research in Higher Education **15**(4): 315-327.

Mentor professors were surveyed with respect to their most successful “protégés” regarding scholarly production, the mentorship role, and their careers. Career stage, network stratification and weak-tie theories provided the conceptual frameworks. The 62 mentors were highly productive professors who were predominately both graduates and employees of research universities. Mentors overwhelmingly nominated as their most successful protégés those whose careers were essentially identical to their own—i.e. their “clones.” Women mentors named as most successfully protégés more than twice as many females and males than men did. More productive mentors linked with a greater number of protégés but were less knowledgeable about their personal lives, as Granovetter’s theory would predict. The results also demonstrate the openness of the network within stratified levels.

Blackwell, J. E. (1989). "Mentoring - An action strategy for increasing minority faculty." Academe-Bulletin of the AAUP **75**(5): 8-14.

This paper discusses the efforts to retain and promote minority students so that they can potentially become faculty and increase the distribution of faculty across different ethnic groups. The author suggests mentoring as a solution for this problem, noting that traditional allocation of mentees tended to result in pairings based on the need of mentors to reproduce their own career trajectories in students, leading because of underrepresentation, to few minority students receiving the benefits of a mentoring relationship. The author discusses the potential benefits of early recognition of gifted minority students and early advent of mentoring relationships for both undergraduate students and new faculty.

Blake-Beard, S. D. (1999). "The costs of living as an outsider within: An analysis of the mentoring relationships and career success of black and white women in the corporate sector." Journal of Career Development **26**(1): 21-36.

This paper tests 5 separate hypotheses about access to mentoring between black and white women engaging in corporate work (N = 1,430): that white women will report greater frequency of mentoring than black women, that race will moderate the relationship between mentoring and promotion such that white women will be most often promoted, that white women will receive greater compensation as a result of mentoring, that white women will be more satisfied with their compensation and that white women will experience more career progression as a result of mentoring. The author's conclusion, after examining the data gathered, was that race was not a significant factor in having a mentoring relationship, but was a significant factor in compensation satisfaction and satisfaction with career progress. Race was not found to be a significant factor in amount of compensation and career progression.

Blass, F. R. and G. R. Ferris (2007). "Leader reputation: The role of mentoring, political skill, contextual learning, and adaptation." Human Resource Management **46**(1): 5-19.

Like organizations in other sectors, military settings can be appropriately characterized as political arenas. As such, political skill is critical for military leader effectiveness and leader reputation. This article proposes a conceptual model that articulates the roles of political skill, contextual learning, impression management, and adaptation in leader reputation development for military personnel aspiring to leadership positions. Political skill is shaped by mentoring and contextual learning experiences, which, in turn, affect the flexibility needed for making favorable impressions on others, adaptation, and fit. Implications of the proposed model for developing a more informed understanding of leader effectiveness and reputation in the military are discussed, as are directions for future research. (c) 2007 Wiley Periodicals, Inc.

Blickle, G., P. B. Schneider, et al. (2010). "Antecedents and Consequences of Perceived Barriers to Obtaining Mentoring: A Longitudinal Investigation." Journal of Applied Social Psychology **40**(8): 1897-1920.

Mentoring is prototypically intended to advance the personal and professional growth of new employees at work. Although meta-analyses have found that receiving mentoring can result in beneficial outcomes for employees' career

success, employees may perceive barriers to obtaining a mentor. The present research examined antecedents and consequences to perceived barriers to mentoring in business and administrative jobs in a field study over 2 years. Socioeconomic origin, positive affectivity, organizational development culture, and previous mentoring experience predicted perceived barriers to mentoring after 2 years. New employees' perceived barriers to mentoring at Time 1 predicted changes in mentoring received and income after 2 years. Implications of this study, including a proposed mentoring training program, and directions for future research are discussed.

Blickle, G., A. Witzki, et al. (2009). "Self-initiated mentoring and career success: A predictive field study." Journal of Vocational Behavior **74**(1): 94-101.

There is a growing recognition of the proactive role of individuals in the world of work. Therefore, the roles of self-initiated mentoring and networking behaviors at the work place were investigated in a longitudinal study over two years with 121 early career employees in administrative and managerial jobs. As expected, after controlling for age, gender, and general intelligence, self-initiated mentoring predicted mentoring received, income, and hierarchical position. The relationship between self-initiated mentoring and career ascendancy was not meditated by mentoring received but by networking behaviors at the work place. The receipt of mentoring can be a part of the early career success yet it is not its critical mediator. Implications and limitations are discussed. (C) 2008 Elsevier Inc. All rights reserved.

Blickle, G., A. H. Witzki, et al. (2009). "Mentoring support and power: A three year predictive field study on protégé networking and career success." Journal of Vocational Behavior **74**(2): 181-189.

Career success of early employees was analyzed from a power perspective and a developmental network perspective, In a predictive field study with 112 employees mentoring support and mentors' power were assessed in the first wave, employees' networking was assessed after two years, and career success (i.e. income and hierarchical position) and career satisfaction were assessed after three years. Networking was the most robust predictor of career success. Mentoring received predicted career satisfaction and its effects on objective career success were mediated by networking. Furthermore, mentoring by a powerful mentor predicted objective career success beyond networking. Based on previous findings we argue that these findings underscore the critical relationship between early career employees' networking behaviors and mentoring received, (C) 2008 Elsevier Inc. All rights reserved.

Bogat, G. A. and R. L. Redner (1985). "How mentoring affects the professional development of women in psychology." Professional Psychology-Research and Practice **16**(6): 851-859.

In recent years there has been a proliferation of literature on the importance of mentoring to the careers of young professionals. The present article discusses the importance of mentoring for psychologists, both during graduate school and for

the later acquisition of a professional position. Data concerning sex discrimination in academic settings is used to demonstrate the lack of mentoring available for women and how this may compound the problems that they face both when seeking employment and when finally ensconced in a work setting. The authors conclude that the advice to find a mentor may place undue responsibility on women: The lack of mentors may be a problem that can only be solved by changing the academic environment.

Bogdanova, M. (2008). "Cross-national mentoring NGOs in transition societies: Field research and developments in Bulgaria." Journal of Business Economics and Management **9**(2): 145-154.

Non-governmental organizations (NGOs) in societies undergoing socio-economic transition are widely regarded as central to building a civil society that encourages democracy. At the moment, the Bulgarian civil society depends greatly on foreign funding whilst NGOs are unable to empower their beneficiaries in decision-making. Given this reality, are cross-national NGO partnerships able to strengthen organizations? What kinds of support are on offer, what kinds of (inter) dependency relations occur and to what extent do NGOs model their management practices on their mentor and with what results? This paper sets out to situate these questions in the context of a proposed theoretical construct, organizational mentoring, which occurs where national or local organizations have access to and support of well-established NGOs abroad. The model is constructed on the findings of a qualitative case study conducted in Bulgaria on the development of a Bulgarian NGO and its relationship with a UK NGO. This is preceded by a discussion on selected literature reflecting the meaning of transition, change in societal values and organizational practices in Eastern Europe, and the development of voluntary sector organizations in transforming countries. The theoretical model proposed here is relevant in providing a systematic discussion on organizational change towards a more enlightened engagement between civil society organizations in cross-national partnerships. Such discussion has implications for the development of hybrid forms of coexistence between Eastern and Western European partners reflected in their interdependent organizational practices.

Bolton, E. B. (1980). "A conceptual analysis of the mentoring relationship in the career development of women." Adult Education **30**(4): 195-207.

This article presents a conceptual analysis of the mentor relationship as an aspect of social learning and the career development of women. The discussion consists of three sections, the first of which deals with the socializing process of modeling with emphasis on role models and their impact on women's career development. Part two discusses the mentor relationship as an aspect of social learning. This section defines and analyses the term mentor in regard to related concepts. The significance of mentor relationships as shown in the literature is presented separately as studies relative to each sex. A model is presented that depicts the career stages and functional relationships within each stage. The last section discusses some of the reasons for the present lack of mentor relationships for

women in regard to the analysis presented in the first two sections.

Bonnett, C., B. M. Wildemuth, et al. (2006). "Interactivity between protégés and scientists in an electronic mentoring program." Instructional Science **34**(1): 21-61.

Interactivity is defined by Henri (1992) as a three-step process involving communication of information, a response to this information, and a reply to that first response. It is a key dimension of computer-mediated communication, particularly in the one-on-one communication involved in an electronic mentoring program. This report analyzes the interactivity between pairs of corporate research scientists (mentors) and university biology students (protégés) during two consecutive implementations of an electronic mentoring program. The frequency and structure of the interactions within each pair were examined to provide context: 542 messages were posted among the 20 mentors and 20 protégés. These messages were formed into 5-10 threads per pair, with 3-4 messages per thread, indicating a high level of interactivity (there were more responses posted than independent messages). Mentor-protégé pairs rated as effective by both mentors and protégés posted more messages overall, had well-structured threads, had protégé and mentor postings that were similar in topic coverage and message length, and had little overt "management" behavior by mentors. However, there appears to be no clear recipe for successful interaction. Not only are there a variety of factors at play in developing an online relationship in this context, but also mentor-protégé pairs can falter at various stages in the process and in various ways.

Booth, W. C. (1994). "Beyond knowledge and inquiry to love - or – Who mentors the mentors?" Academe-Bulletin of the AAUP **80**(6): 29-36.

This article discusses the failings of mentors in the author's life, as well as failures due to serious misconduct of professors, ranging from dispassionate and/or angry distance to overfamiliarity and sexual exploitation of the mentee. The author feels this is a result of increased tolerance for misconduct in society, and details major and minor incidences of academic and personal misconduct in the classroom. He discusses the mimicry of habit that occurs as a function of admiration and as a survival mechanism in the classroom, and discusses the pervasive and implicit power that such things give professors. In the conclusion, he questions the conditions that constitute a good balance of intimacy and practice, concluding that good mentoring is a function of continuous effort to preserve the self of the student.

Boreen, J. and D. Niday (2000). "Breaking through the isolation: Mentoring beginning teachers." Journal of Adolescent & Adult Literacy **44**(2): 152-163.

The authors discuss the isolation facing new teachers due to the compartmentalization they face in the school system, citing it as a potential cause for low teacher retention rates after several years of practice. To remedy this problem, the authors suggest a conception of mentoring which emphasizes collegiality, instead of distance. They advocate inviting students into their professional discussions, student mentoring and discussions about that mentoring,

to provide models for mentoring to students and to give students a chance to integrate technology with their projects. The article discusses the methodology for this experiment, and concludes that such a project, if voluntary, containing more one-on-one interaction and based on constructivist principles, would be a worthy project for adoption at other schools.

Boris-Schacter, S. and G. Vonasek (2009). "Dear Gayle, Dear Sheryl: Using e-mail for a principal mentorship." Phi Delta Kappan **90**(7): 490-494.

A steady stream of e-mails that share necessary knowledge, authentic feedback, and mutual and sincere caring can build a strong foundation for an effective mentorship. School districts should not underestimate the support e-mail mentoring can provide for novice principals.

Borman, C. and S. Colson (1984). "Mentoring - An effective career guidance technique." Vocational Guidance Quarterly **32**(3): 192-197.

Describes the use of the mentoring process as a career guidance technique for use with high school and college students. A mentorship experience provides an opportunity for students to discover qualities about a career field by direct observation of a person working in that field. (JAC) © ERIC

Bova, B. M. and R. R. Phillips (1984). "Mentoring as a learning experience for adults." Journal of Teacher Education **35**(3): 16-20.

Mentoring provides both a holistic and individualized approach to learning. A mentor-protégé relationship also serves various professions by the teaching and learning of relevant skills and values. Protégés learn risk-taking behaviors, communication skills, political skills, and specific skills from their mentors.

Bowden, S. H. (2004). "Top ten list for choosing to become a mentor." Young Children **59**(4): 78-79.

In true David Letterman style, this article presents a Top Ten List for why and how it's important to get to know the beginning teacher next door or just down the hall and listen for call signals. What follows is the Top Ten List for becoming a mentor: (1) establish reciprocal collaboration through trust; (2) offer a shoulder of support; (3) share the contents of your toolbox; (4) open the treasure chest of community resources; (5) provide on-the-spot answers; (6) model effective strategies; (7) reconsider your own practice; (8) be available over time; (9) demonstrate professionalism; and (10) gain new ideas and enthusiasm for the job.

Bowen, D. D. (1985). "Were men meant to mentor women?" Training and Development Journal **39**(2): 30-34.

Identified 32 mentor/protégée pairs in a wide range of businesses and surveyed them on questions concerning the value of the relationship to both parties and possible sexual intimacy problems associated with cross-sex pairs. All protégées were female, while 18 of the mentors were male and 14 were female. Results indicate sex-related problems unique to cross-sex mentoring, which affected relationships at work and at home. However, most Ss were succeeding in dealing

with these problems. Even the most frequently mentioned problem, the jealous spouse, emerged in only a small fraction of the male–female relationships. The greatest single problem was the resentment of co-workers. Both male–female and female–female mentors had to cope with this issue. Mentors and protégées often mentioned positive benefits to their work or non-work relationships that may have offset any problems they experienced. It is suggested that rather than adopting an extreme policy of either requiring or forbidding mentoring, managers should recognize that mentoring relationships are likely to develop with or without their encouragement. Steps that can be taken to ensure that the organization derives maximum benefit in developing its future managers include recognizing the relevance of mentoring, providing counseling and training to present and potential mentors, and providing opportunities for potential protégées to interact with senior staff who are prospective mentors. (4 ref) (PsycINFO Database Record (c) 2012 APA, all rights reserved)

Bowen, D. D. (1986). "The role of identification in mentoring female protégés." Group & Organization Studies **11**(1-2): 61-74.

It is widely accepted that young women have few opportunities to receive effective mentoring, because: (1) few females occupy executive positions; and (2) women cannot identify with males. Results presented here do not support these assumptions. Effectiveness appears to be determined by functions performed, not sex or identification.

Bozionelos, N. (2004). "Mentoring provided: Relation to mentor's career success, personality, and mentoring received." Journal of Vocational Behavior **64**(1): 24-46.

The relationship of a mentor's perceptions of his/her career success, mentoring he/she received, personality, and the amount of mentoring he/she provided was investigated in a sample of 176 administrators. Results indicated that the amount of mentoring respondents reported they had provided was positively associated with their objective and their subjective career success and with the amount of mentoring they reported they had received. Mentoring provided mediated the relationship between mentoring received and subjective career success. Finally, the personality trait of openness was associated with mentoring provided over and above the contribution of human capital and demographics. The results were in line with suggestions in the literature that providing mentoring has positive consequences for the career of the mentor and that an individual who has been mentored is more likely to provide mentoring. However, the findings suggested a limited role for the personality of the mentor in providing mentoring. The implications for career development practices and tactics and for future research were considered, along with the limitations of the study. © 2003 Elsevier Science (USA). All rights reserved.

Bozionelos, N. (2006). "Mentoring and expressive network resources: their relationship with career success and emotional exhaustion among Hellenes employees involved in emotion work." International Journal of Human Resource Management **17**(2): 362-378.

Although mentoring has been identified as an important career resource for

protégés in the Anglo-Saxon cultural cluster, pertinent research in other cultures is still scarce. The relationship of mentoring and expressive network resources with protégés' career success and emotional exhaustion was investigated in a sample of 104 Hellenes (Greek) bank employees performing frontline service jobs. The number of mentors that respondents reported they have had was related to their extrinsic career success. However, currently having a mentor was not related to intrinsic career success and was marginally related to emotional exhaustion. In contrast, the amount of expressive network resources was strongly related to both intrinsic career success and emotional exhaustion. The results are discussed with respect to extant research, the national cultural context of the study and the cross-cultural transferability of human resource systems. The general tentative conclusion is that relationships with mentors and expressive network resources appear to be important resources for employees across cultures, but the relative potency of their benefits is influenced by the national cultural characteristics.

Bozionelos, N. and G. Bozionelos (2010). "Mentoring received by protégés: its relation to personality and mental ability in the Anglo-Saxon organizational environment." International Journal of Human Resource Management **21**(4): 509-529.

Dispositional characteristics, including personality and mental ability, play a substantial role in interpersonal relationships. However, their connection with mentoring, which is a form of interpersonal relationship, has received limited attention. The study empirically investigated the association of mentoring received with the Big Five of personality and general mental ability in the Anglo-Saxon organizational environment. Furthermore, it integrated the relationship between dispositional traits, mentoring received and career success in a causal path model. Analysis of data collected from 272 white-collar workers suggested no relationships of logarithmic form between mentoring received and personality traits or general mental ability. Hierarchical linear regression indicated that scores on openness and agreeableness made significant contributions to scores on mentoring received over and above the contributions of the demographics and human capital controls. Causal path modeling suggested that the total effects of openness and agreeableness on extrinsic career success were negative while the corresponding effects on intrinsic career success were positive; largely due to the fact that the benefits of mentoring received were stronger for intrinsic than for extrinsic career success. The results were discussed with respect to their contribution to our understanding of the development of mentoring relationships, and their implications for practice and research across national cultural contexts.

Bozionelos, N. and L. Wang (2006). "The relationship of mentoring and network resources with career success in the Chinese organizational environment." International Journal of Human Resource Management **17**(9): 1531-1546.

The relationship of mentoring and network resources, the two components of social capital, with career success was investigated in a sample of 113 Chinese white-collar workers. The findings suggested that the prevalence of mentoring in the Chinese workplace is substantially higher than in the Anglo-Saxon workplace, and that Chinese employees do not distinguish their network ties or Guanxi into

expressive and instrumental. These results were in line with the presumption that mentoring is an integral part of the Chinese culture and with the view that network ties or Guanxi in the Chinese society cannot exist in a purely instrumental form. In contrast to hypotheses, however, the findings suggest a limited relationship between social capital and career success. In particular, the amount of mentoring, participants reported they had received, was related to their intrinsic career success but not to their extrinsic career success; and the amount of network resources or Guanxi was related neither to extrinsic nor to intrinsic career success. These results were largely at odds with the accumulated knowledge on the benefits of social capital for career success. The findings are discussed with respect to the changing nature of the Chinese business and organizational environment, and their implications for human resource practices.

Bradbury, L. U. (2010). "Educative Mentoring: Promoting Reform-Based Science Teaching Through Mentoring Relationships." Science Education **94**(6): 1049-1071.

Educative mentoring is an idea developed by Feiman-Nemser (1998) in his article "Teachers as teacher educators" and in his 2001 article "Helping novices learn to teach: Lessons from an exemplary support teacher," published respectively in the 52 and 21 volumes of the European Journal of Teacher Education. These articles ask the reader to reflect on current conceptions of mentoring that emphasize novices learning from their practice with the assistance of a mentor teacher. Educative mentoring seeks to meet the immediate needs of novice teachers while also focusing on long-term goals for professional development. This paper discusses the meaning of educative mentoring and describes key behaviors of educative mentors, outlines important components for the professional development of mentors, and proposes areas for further research with a specific emphasis on the needs of beginning science teachers. © 2010 Wiley Periodicals, Inc. Sci Ed 94:1049-1071, 2010

Bradbury, L. U. and T. R. Koballa (2008). "Borders to cross: Identifying sources of tension in mentor-intern relationships." Teaching and Teacher Education **24**(8): 2132-2145.

We used border crossing as a theoretical framework to explore the tensions that developed between two mentor-intern pairs during the course of a yearlong internship in high schools in the United States. Interviews with mentors and interns, and observations of planning sessions, teaching episodes, and follow-up conferences indicated that differing conceptions of mentoring, expectations related to communication, and beliefs about teaching formed the primary borders that the pairs had to navigate. Findings from the study suggest that the university must take a greater role in fostering communication between mentors and interns, and in providing on-going support to mentors engaged in teacher education. Published by Elsevier Ltd.

Brady, L. (1993). "Intervisitation and mentoring – Professional development for principles." Journal of Curriculum Studies **25**(4): 371-375.

This paper presents a set of case studies on the principals of 242 primary and

secondary schools in Australia to identify their preferred methods for their professional development. © Refdoc.fr

Brennan, S., W. Thames, et al. (1999). "Mentoring with a mission." Educational Leadership **56**(8): 49-52.

This article discusses the efforts of the state of Kentucky to retain and nurture quality K-12 teachers through teacher reflection about student learning, maintaining a portfolio and the impact of their classroom behavior. The program's outcome survey reported 80-90% satisfaction with the program's effect and the feeling that the program provided important professional development.

Broadbridge, A. (1999). "Mentoring in retailing: a tool for success?" Personnel Review **28**(4): 336-355.

This paper assesses the incidence and contribution that mentoring has to the career development of retail managers. Previous research has identified the benefits that mentoring relationships have for the protégé, the mentor, and the organization, although none have compared the experiences and attitudes towards mentoring within the retail environment. Drawing on a sample of 132 UK retail managers, this research found that half the sample had experienced being a protégé in a mentoring relationship. No significant differences were found between a respondent's sex, age, position in the organization and whether they have been mentored. Mentoring was found to play an important role in the development of a protégé's current job, career and self-development. It was less apparent whether the incidence of mentoring affected retail managers' ultimate career ambitions. However, it appears that the advantages of mentoring as a management development tool far outweigh any disadvantages for the protégé.

Brown, B. P., A. R. Zablah, et al. (2008). "The role of mentoring in promoting organizational commitment among black managers: An evaluation of the indirect effects of racial similarity and shared racial perspectives." Journal of Business Research **61**(7): 732-738.

Due to the effort and expense of recruiting black managers, there is a need to maximize the chances of retaining those that are most productive. Effective mentoring may be one avenue to reach this objective by enhancing job satisfaction and organizational commitment. Using the responses of 139 members of the National Black MBA Association (MBMBAA), this study explored the indirect or mediated effects of demographic (i.e. white mentors-black protégés vs. black mentors-black protégés) and attitudinal (i.e. perceived complementary racial perspectives) similarity on the affective commitment of black managers. The results suggest that attitudinal similarity is a more critical factor than demographic similarity in enhancing mentoring-driven affective commitment among black managers. In addition, the results reveal that in certain circumstances demographic similarity can actually have an adverse impact on the career benefits realized from mentoring relationships. © 2007 Elsevier Inc. All rights reserved.

Brown, R. T., B. P. Daly, et al. (2009). "Mentoring in Research: A Developmental

Approach." Professional Psychology-Research and Practice **40**(3): 306-313.

Psychologists are frequently called on to mentor students, trainees, and early faculty in various aspects associated with research. Little formal training is provided to mentors on how to effectively and successfully mentor trainees at the various developmental levels of the training process. The authors apply a developmental focus to the mentoring relationship. The literature on research mentoring is reviewed, including a review of mentorship with women and ethnic minorities. The multiple roles and functions of mentorship for clinical researchers and research scientists also are explored. Finally, the authors provide a list of the top 6 skills and behaviors that enable successful mentoring.

Brown-Wright, D. A., R. A. Dubick, et al. (1997). "Graduate assistant expectation and faculty perception: Implications for mentoring and training." Journal of College Student Development **38**(4): 410-416.

Major purposes of graduate education include the development of research and other professional skills among graduate students and to assist them in becoming socialized into the academic culture. Graduate assistantships have been cited as having a major influence on graduate students' leadership development. Role expectations can be a key determinant in the success of such experiences. Researchers surveyed graduate assistants and faculty to determine the level of congruence between graduate assistants' and faculty's role expectations. In addition, the study investigated attitudes that graduate students and faculty had concerning authorship and examined the need for graduate assistant training and mentoring.

Browne-Ferrigno, T. and R. Muth (2004). "Leadership mentoring in clinical practice: Role socialization, professional development, and capacity building." Educational Administration Quarterly **40**(4): 468-494.

Research on multiple cohorts of aspiring and practicing principals engaged in professional development provides perspectives on the benefits of mentoring through clinical practice by clarifying issues related to role socialization, professional development, and leadership capacity building. Based on data from participants in several cohorts and reviews of research on clinical practice, leadership preparation, and mentoring, the authors make recommendations for improving university-based preparation programs through models and programs in which aspiring principals can gain authentic administrative work experience guided by mentors. The authors close with a reflection about the critical importance of practice and administrative mentoring in the initial and continuing preparation of principals.

Bryant, S. E. (2005). "The impact of peer mentoring on organizational knowledge creation and sharing - An empirical study in a software firm." Group & Organization Management **30**(3): 319-338.

Managing organizational knowledge creation and sharing effectively has become an important source of competitive advantage for firms. Peer mentoring is becoming increasingly common and may be an effective way to facilitate

knowledge creation and sharing. This article provides an empirical test of the relationship between peer mentoring and knowledge creation and sharing in a high-tech software firm. Results suggested that a training course for peer mentors increased perceived levels of peer mentor knowledge and skills. Results also indicated that higher perceived levels of peer mentoring were related to higher perceived levels of knowledge creation and sharing.

Bullough, R. V. (2005). "Being and becoming a mentor: school-based teacher educators and teacher educator identity." Teaching and Teacher Education **21**(2): 143-155.

Drawing on Gee's "Social linguistics and literacies: ideology in discourses," (Routledge-Falmer, New York, 1996) and the associated categories of ways to view identity, a case study is constructed of a secondary school teacher's struggle to move beyond her identity as a teacher to assume a mentor's identity in her year-long work with two English-teaching interns. Data of various kinds were gathered; from the interns, weekly e-mails and a paired peer interview, and from the teacher, interview, a peer interview, a mentoring log, and transcripts of a mentoring seminar. Based on this data, the author argues for the importance of attending to identity in teacher education and mentoring and describes conditions that would facilitate mentor identity formation. © 2004 Elsevier Ltd. All rights reserved.

Bullough, R. V. and R. J. Draper (2004). "Making sense of a failed triad - Mentors, university supervisors, and positioning theory." Journal of Teacher Education **55**(5): 407-420.

Mentoring is often portrayed as an unqualified good. Teacher educators claim that mentoring holds promise for beginning teacher development, increased retention of novice teachers, and mentor/teacher improvement. Drawing on positioning theory, this study describes negotiation of power and position in a failed triad composed of a public school mentor, a university mathematics supervisor, and an intern teacher. Data reveal how each member of the triad sought to make sense of his or her experience and to accomplish desired aims. The activity of positioning and being positioned within the triad profoundly shaped each participant's experience and ultimately interfered with the intern's induction into teaching.

Bullough, R. V., J. R. Young, et al. (2008). "Cognitive complexity, the first year of teaching, and mentoring." Teaching and Teacher Education **24**(7): 1846-1858.

Drawing on data from a US study of nine mentors and mentees, including mentee scores on the Reasoning about Current Issues (RCI) Test, which offers a measure of cognitive complexity, the authors explore how differences in cognitive complexity were related to role expectations, conceptions of teaching problems, and the use of evidence for justifying beliefs. Growing out of the Reflective Judgment Model developed by King and Kitchner [(2002). The reflective judgment model: Twenty years of research on epistemic cognition. In B. Hofer, & P. Pintrich (Eds.), Personal epistemology: The psychology of beliefs about knowledge and knowing (pp. 37-61). Mahwah, NJ: Lawrence Erlbaum Associates] the RCI defines cognitive complexity in terms of how individuals

reason, make judgments and use evidence about ill-structured, controversial problems. The authors argue that differences in how individuals reason when problem solving may help explain some aspects of how relationships between mentees and mentors form and suggest that greater attention needs to be given to cognitive complexity when designing induction and mentor programs. © 2008 Elsevier Ltd. All rights reserved.

Burk, H. G. and L. T. Eby (2010). "What keeps people in mentoring relationships when bad things happen? A field study from the protégé's perspective." Journal of Vocational Behavior **77**(3): 437-446.

This study examines the association between negative mentoring experiences and port g intentions to leave the mentoring relationship. The role of perceived mentoring alternatives and fear of mentor retaliation was also examined as moderators of the relationship between negative mentoring experiences and intentions to leave. Results indicate that several types of negative mentoring experiences predict intentions to leave the mentoring relationship. In addition, three moderation effects were found. The results are discussed in terms of enhancing our understanding of mentoring relationships in the workplace. © 2010 Elsevier Inc. All rights reserved.

Burke, R. J. and C. A. McKeen (1995). "Do managerial women prefer women mentors?" Psychological Reports **76**(2): 688-690.

Managerial women's beliefs and experiences about cross-sex mentoring were examined. 280 women provided data on anonymously completed questionnaires. Managerial women reported or expected few difficulties although some findings suggested cross-sex concerns and modest preferences for same-sex mentors.

Burke, R. J. and C. A. McKeen (1996). "Gender effects in mentoring relationships." Journal of Social Behavior and Personality **11**(5): 91-104.

This study examined mentoring relationships engaged in by managerial and professional women. Data were collected from 280 female business graduates of a single university using questionnaires. The experiences of women having female and male mentors were compared. In addition, the effects of same-sex and cross-sex mentoring were investigated. Women with male and female mentors generally reported similar experiences. Women with female mentors reported a trend toward receiving more psychosocial support functions, and had significantly greater intention to quit their organizations. They also had younger mentors closer to their own organization levels. Hierarchical regression analyses indicated that mentor gender had no effects on levels of mentor functions received and only modest effects on work outcomes.

Burke, R. J. and C. A. McKeen (1997). "Benefits of mentoring relationships among managerial and professional women: A cautionary tale." Journal of Vocational Behavior **51**(1): 43-57.

This study examined antecedents and consequences of mentor functions among managerial and professional women. A model that included personal demographic

and relationship antecedents of mentoring was developed, based on previous research findings. Data were collected from 280 female business graduates of a single university using questionnaires. About 70% described a developmental relationship we defined as a mentor relationship. About two-thirds involved a male mentor, and about half were still ongoing. Most mentors had direct supervisory responsibilities and most mentor relationships were established early in the women's tenure with their employing organization. Women received more mentor functions from mentors with direct supervisory responsibilities, in longer relationships, and in organizations supporting such developmental relationships. Specific mentor functions were modestly but inconsistently related to work outcomes, and related to personal well-being measures to an even lesser extent. These findings suggest caution be used when advocating the benefits of mentor relationships. © 1997 Academic Press.

Burke, R. J., C. A. McKeen, et al. (1993). "Correlates of mentoring in organizations – The mentor's perspective." Psychological Reports **72**(3): 883-896.

This study examined mentoring relationships in organizations from the perspective of mentors. A model that included personal and situational antecedents of mentoring was developed, based on previous research findings. Data were obtained by questionnaire from 94 mentors employed in 7 high technology firms. Support was found for the proposed model. Mentor-protégé similarity emerged as an important predictor of mentors' functions. Practical implications of the findings for organizations and further directions for research on mentoring are proposed.

Burney, J. P., B. L. Celeste, et al. (2009). "Mentoring Professional Psychologists: Programs for Career Development, Advocacy, and Diversity." Professional Psychology-Research and Practice **40**(3): 292-298.

The importance of continuing and updated training for professional psychologists in essential areas of practice and career development-that is, advocacy, ethical business practices, understanding of legislative and regulatory issues, leadership, and culturally informed policies and practices-has spawned the development and implementation of multiple mentoring programs within organized professional psychology. Four such programs are discussed that have been developed through or supported by the Committee for the Advancement of Professional Practice within the American Psychological Association (APA). These programs provide mentoring for graduate students, early career psychologists, and experienced practicing psychologists in the areas of effective and ethical business practices, legislative and regulatory advocacy, and ethnic minority leadership development. Included are descriptions of mentoring programs developed and implemented by the Massachusetts Psychological Association, the Texas Psychological Association, the APA Practice Federal Advocacy Coordinator network, and the APA State Leadership Conference Diversity Initiative.

Burxe, R. J., C. A. McKeen, et al. (1990). "Sex-differences and cross-sex effects on mentoring - Some preliminary data." Psychological Reports **67**(3): 1011-1023.

The mentor relationship is increasingly being seen as an important ingredient in career development, particularly for women managers and professionals. This study examined sex differences and cross-sex effects of the mentor-protégé relationship. Data was collected, using questionnaires, from 81 male and 13 female mentors in high-technology firms. Both sex and cross-sex effects were observed. Psychosocial functions were more prevalent when women were involved as either mentors or protégés and most prevalent in pairs of women.

Burxe, R. J., C. S. McKenna, et al. (1991). "How do mentorships differ from typical supervisory relationships?" Psychological Reports **68**(2): 459-466.

This study compared mentor relationships with typical supervisory relationships. Data was collected from 94 managers employed in high-technology firms using questionnaires completed anonymously. Protégés were rated more promotable, tended to be more similar, in longer relationships, and hired and placed by managers, but were communicated with less frequently and tended to be physically further away from managers than were typical subordinates. Managers reported providing significantly more psychosocial functions, but not more career development functions, to protégés than to typical subordinates.

Busch, J. W. (1985). "Mentoring in graduate schools of education – Mentor's perceptions." American Educational Research Journal **22**(2): 257-265.

A sample of 1,088 professors in colleges and departments of education were surveyed to study mentoring relationships from the mentors' point of view. About half of them returned the demographic instrument; half of these currently had mentees. Using O'Neil's theory of mentoring, a Likert-style instrument was developed. Results indicated that mentors feel mentoring is important to them as well as to their students. In a multivariate multiple regression, age was a significant predictor of mentoring score; sex and professional rank were not significant. Younger professors reported more depth to their mentoring relationships, and older professors reported more breadth.

Byrne, Z. S., B. J. Dik, et al. (2008). "Alternatives to traditional mentoring in fostering career success." Journal of Vocational Behavior **72**(3): 429-442.

Researchers have called for an examination of the roles that alternatives to traditional mentoring play in individuals' career success. This study tests how important, but less examined factors, such as employees' direct leader, personal and work factors such as ability and the formality of the organization, and employees' engagement in career management strategies relate to career outcomes. Mechanisms intervening in the relationship between mentoring alternatives and career success were examined, including the moderating effect of individual differences (e.g., proactive personality, career motivation, and career stage) and the mediating role of employees' career self-efficacy. We discuss how our results continue the examination of alternative sources of mentoring and contribute to existing theory. Finally, we elaborate on the practical importance of our results for situations where alternatives to traditional mentoring are needed. © 2007 Elsevier Inc. All rights reserved.

Campbell, C. M., M. Smith, et al. (2012). "Mentors and College Student Leadership Outcomes: The Importance of Position and Process." Review of Higher Education **35**(4): 595-625.

Mentorship is empirically related to several desired outcomes in college students including academic success and career development. Yet little is known about how mentorship aids leadership development in college students. This study uses data from the Multi-Institutional Study of Leadership, a national study with more than 110,000 participants from 101 institutions, to explore this issue. Findings show that leadership capacity is influenced by the mentorship process and the type of mentor (faculty, staff, employer, or peer). By focusing on who does the mentoring and how the mentoring process unfolds, this study informs best practices in mentoring for student leadership development.

Campbell, T. A. and D. E. Campbell (1997). "Faculty/student mentor program: Effects on academic performance and retention." Research in Higher Education **38**(6): 727-742.

A university faculty/student mentor program was evaluated for its effects on academic performance and retention, A matched pairs design was used in which 339 undergraduates assigned to mentors were paired with non-mentored students based on gender, ethnicity, GPA, and entering enrollment status. The results showed a higher GPA for mentored students (2.45 vs. 2.29), more units completed per semester (9.33 vs. 8.49), and lower dropout rate (14.5% vs. 26.3%). Amount of mentor-protégé contact was positively correlated with GPA. Academic achievement and retention were unrelated to gender and ethnicity of the mentor, the protégé, or the gender and ethnic match between the two.

Canter, K. S., E. D. Kessler, et al. (2012). "Perceived Benefits of Mentoring in Pediatric Psychology: A Qualitative Approach." Journal of Pediatric Psychology **37**(2): 158-165.

This study attempts to identify tangible and intangible benefits of mentoring cited by a select group of identified mentors. Twenty frequently named mentors within pediatric psychology provided responses to open-ended questions regarding benefits they have experienced through the mentoring process. Mentors identified many personal and professional benefits of the mentoring relationship, although they did not clearly distinguish between tangible and intangible advantages to the relationship. The most commonly reported benefits included career development of the mentee, mentor's career enhancement, and a sense of giving back to the field of pediatric psychology. The authors discover that a bidirectional definition of mentoring more accurately describes the relationship than a more traditional unidirectional definition. These results suggest that mentors experience a wide variety of benefits that could be examined more closely within the field.

Carroll, D. (2005). "Learning through interactive talk: A school-based mentor teacher study group as a context for professional learning." Teaching and Teacher Education **21**(5): 457-473.

This article reports on a year long study of collaborative professional learning in a mentor teacher study group connected to a large university teacher education

program. It introduces a theoretical framework for considering the nature of interactive talk and its relationship to professional learning. Using examples of study group discourse, it then presents a methodology for analyzing interactive talk and the joint construction of ideas about practice. The article concludes by describing study group materials and analytic tasks developed from artifacts of practice, and offering an analysis of leadership and facilitation issues for guiding inquiry-oriented discourse in study group contexts. © 2005 Elsevier Ltd. All rights reserved.

Carver, C. L. and D. S. Katz (2004). "Teaching at the boundary of acceptable practice - What is a new teacher mentor to do?" Journal of Teacher Education **55**(5): 449-462.

Thoughtful mentoring can shape and challenge a beginning teacher's practice in educative ways, especially when the novice is well prepared and adopts the stance of a learner. What responsibility does a mentor have when the novice performs at the edge of acceptable practice? Drawing on interview and observation data collected for a national study of new teacher induction, this article explores how a well-supported mentor routinely missed opportunities to address difficulties faced by three novices. Through the construct of professional accountability, the authors argue for a more sophisticated approach to mentoring that blends assistance with standards-based assessment, as found in recent reform proposals. As the pool of new teachers shrinks, the phenomenon of teaching at the boundary of acceptable practice is likely to be exacerbated. This analysis raises timely questions about mentors' professional obligations to new teachers and the public they serve.

Cassidy, D. J. and B. K. Myers (1993). "Mentoring in in-service training for child-care workers." Child & Youth Care Forum **22**(5): 387-398.

A model for training the trainers of childcare providers that employs Vygotsky's framework of the Zone of Proximal Development is described. This efficient training mechanism proposes mentoring relationships as a means to meet the developmental needs of experienced childcare professionals and improve the quality of existing childcare programs.

Casto, C., C. Caldwell, et al. (2005). "Creating mentoring relationships between female faculty and students in counselor education: Guidelines for potential mentees and mentors." Journal of Counseling and Development **83**(3): 331-336.

Mentoring can support all aspects of women's professional (and often personal) lives as students, educators, researchers, practitioners, and leaders in the counseling profession. So that female mentors and mentees know what to expect from each other, the authors draw upon the mentoring literature and their own experiences in mentoring relationships to provide guidelines for mentoring relationships by defining the means and ends that can be used to establish and maintain woman-to-woman professional mentoring in higher education.

Cesa, I. L. and S. C. Fraser (1989). "A method for encouraging the development of good mentor-protégé relationships." Teaching of Psychology **16**(3): 125-128.

This article describes a system for graduate students to evaluate faculty in their

roles as advisers and mentors. Some of the benefits of the system and some suggestions for encouraging the development of good mentor-protégé relationships are also mentioned.

Chalies, S., S. Bertone, et al. (2008). "Effects of collaborative mentoring on the articulation of training and classroom situations: A case study in the French school system." Teaching and Teacher Education **24**(3): 550-563.

This study assessed the effects of a collaborative mentoring sequence on the professional development of a pre-service teacher (PT). The analysis of data from observation and self-confrontation interviews identified work rules [Wittgenstein, L. (1996). In G. E. M. Anscomb & G. H. Von Wright (Eds.), Remarques philosophiques [Philosophical investigations]. Oxford: Blackwell] that were learned and/or used by the PT and from which we were able to evaluate his professional development. By following the trace of these rules, we showed that in some circumstances collaborative mentoring provides a better articulation between traditional training situations (co-preparation and co-evaluation of lessons) and the classroom situation than traditional models. From a description and discussion of these circumstances, the conditions for applying these findings to optimize training programs are discussed. © 2007 Published by Elsevier Ltd.

Chandler, D. E. (2011). "The Maven of Mentoring Speaks: Kathy E. Kram Reflects on Her Career and the Field." Journal of Management Inquiry **20**(1): 24-33.

Mentoring has received significant attention in the management literature for nearly 30 years and has been a practice pervasive in organizational lifelong before its introduction as a phenomenon of study. This interview with Kathy E. Kram assesses her seminal and continued influence on the field. Arguably, no other mentoring scholar has made such indelible marks on the field; Kram laid the foundation with her research in the early 1980s and has since made lasting contributions in the areas of diversity, developmental networks, and alternative relational vehicles. Throughout her career, Kram's approach to scientific inquiry has been guided by her numerous consulting experiences, which have allowed her to ask questions and provide insights that are relevant to formal mentoring programs and the cultivation of informal relationships. The interview involves a discussion of influences on Kram's career, the field's evolution and future, mentoring as a practice, and her current research pursuits.

Chao, G. T. (1997). "Mentoring phases and outcomes." Journal of Vocational Behavior **51**(1): 15-28.

As a relationship, mentorship is theorized to evolve through several stages over time (Kram, 1985). Results from 178 protégés supported Cram's sequence of four mentoring phases: Initiation, Cultivation, Separation, and Redefinition. In addition, protégés in the Initiation phase reported lower levels of mentoring functions than other protégés; however, no significant differences across these phases were found for a variety of job/career outcomes. Data from 82 current protégés and 69 former protégés were compared with those from 93 individuals who reported never having a mentor. The three groups were compared on career

outcomes, job satisfaction, organizational socialization, and income measures across a 5-year period. Results showed consistent differences between mentored and non-mentored individuals. © 1997 Academic Press.

Chao, G. T. (2009). "Formal Mentoring: Lessons Learned From Past Practice." Professional Psychology-Research and Practice **40**(3): 314-320.

Formal mentoring programs are often implemented to help early career professionals; however, research on these programs has found mixed support. The general literature on formal mentoring programs has shifted from early studies comparing informal and formal mentoring to studies of the program characteristics related to success. A pilot program for formal mentoring of early career psychologists is presented for case study. Although the program was small and matching mentors and mentees proved difficult, reactions from some participants indicated successful mentoring. Drawing on lessons learned from the program and the general literature on formal mentoring, the author focuses on the matching process, training and program resources, and program administration.

Chao, G. T., P. M. Walz, et al. (1992). "Formal and informal mentorships - A comparison on mentoring functions and contrast with non-mentored counterparts." Personnel Psychology **45**(3): 619-636.

Research on mentorships has suffered from fragmentation of key issues; specifically, type of mentoring relationship, functions served by the mentor, and outcomes of the mentoring relationship. A field study was conducted comparing 212 protégés who were involved in informally developed mentorships, 53 protégés involved in formal mentorship programs, and 284 individuals who did not have mentors. Individuals in informal and formal mentorships were compared along two mentoring dimensions: psychosocial and career-related functions. All groups were compared on three outcome measures: organizational socialization, job satisfaction, and salary. Results indicated protégés in informal mentorships reported more career-related support from their mentors and higher salaries than protégés in formal mentorships. For all outcome variables, protégés in informal mentorships also reported more favorable outcomes than no mentored individuals. However, outcomes from protégés in formal mentorships were generally not significant from the other two groups. Implications for mentorship practices and research are discussed.

Clawson, J. G. (1985). "Is mentoring necessary?" Training and Development Journal **39**(4): 36-39.

Discusses the definition of "mentoring," whether it is essential to career planning, and how, if at all, it should be incorporated in individual or organizational plans. 76 managers in 4 executive seminars were asked to rate the degree of influence that the 3 most influential people other than their parents had in 14 aspects of life. Only one of the 214 mentor relationships was highly influential in all 14 aspects, indicating that modern managers do not find their mentors to be comprehensive role models. Data from the questionnaire indicate that being emulated in 5 life aspects is a reasonable profile of the modern mentor. Intellectual sharpness, job

skills, managing a career, social skills, and emotional characteristics were the most emulated aspects of mentors. The author argues that formalized mentoring is not essential. Individuals and organizational specialists concerned with fitting mentoring into career planning activities may be searching for a nonexistent panacea. Most people naturally find those from whom they can learn. Further, separating learning from sponsorship in management development enables individuals and specialists to manage and use superior–subordinate relationships as powerful developers of managerial talents. (19 ref) (PsycINFO Database Record © 2012 APA, all rights reserved)

Clawson, J. G. and K. E. Kram (1984). "Managing cross-gender mentoring." Business Horizons **27**(3): 22-32.

For many years, men have been helped to advance in their careers by the interest and personal guidance of a mentor. Now, when women in business merit this special professional attention, problems can arise—including sexual attraction, marital disruption, and damaging gossip. These authors provide suggestions for men and women who must deal with this potentially dangerous situation.

Cohen, G. L., C. M. Steele, et al. (1999). "The mentor's dilemma: Providing critical feedback across the racial divide." Personality and Social Psychology Bulletin **25**(10): 1302-1318.

Two studies examined the response of Black and White students to critical feedback presented either alone or buffered with additional information to ameliorate its negative effects. Black students who received un-buffered critical feedback responded less favorably than White students both in ratings of the evaluator's bias and in measures of task motivation. By contrast, when the feedback was accompanied both by an invocation of high standards and by an assurance of the student's capacity to reach those standards, Black students responded as positively as White students and both groups reported enhanced identification with relevant skills and careers. This "wise," two-faceted intervention proved more effective than buffering criticism either with performance praise (Study I) or with an invocation of high standards alone (Study 2). The role of stigma in mediating responses to critical feedback, and the implications of our results for mentoring and other teacher-student interactions, are explored.

Coley, D. B. (1996). "Mentoring two-by-two." Training & Development **50**(7): 46-48.

Describes a mentoring program that matched senior managers with high-potential people. Steps include matching mentors and protégés, meeting with participants, implementing the program, and evaluating the program. (JOW)

Colley, H. (2001). "Righting rewritings of the myth of Mentor: a critical perspective on career guidance mentoring." British Journal of Guidance & Counselling **29**(2): 177-197.

Mentoring is entering the repertoire of career guidance techniques as careers services prioritize socially excluded young people. This article explores the use of

Homer's Odyssey as a source of definitions and legitimations of many current accounts of mentoring. Contrasting modern versions of Homer's myth of Mentor with the original, it draws on feminist and class perspectives to question the basis on which such myths are used to proclaim the origins of a very contemporary phenomenon. It identifies an emerging discourse of mentoring, a regime of truth which exerts control not only over the young people being mentored, but also over career guidance staff expected to act as mentors in new Personal Adviser roles.

Colley, H. (2003). "Engagement mentoring for 'disaffected' youth: a new model of mentoring for social inclusion." British Educational Research Journal **29**(4): 521-542.

This article presents a critical analysis of mentoring for social inclusion. It traces its dramatic international expansion as a tool of education policies in the 1990s, and identifies a new model, 'engagement mentoring', which seeks to re-engage 'disaffected' young people with the formal labor market, and to engage their commitment to dominant interests through shaping their dispositions in line with 'employability'. Mentors are treated as vehicles for these objectives, their dispositions also subject to transformation according to gendered stereotypes of care. The model is illustrated by a case study of engagement mentoring, and feminist readings of Bourdieu and Marx are used to relocate it within the socio-economic context from which it is usually embedded. The article concludes that engagement mentoring constructs the habitus of both mentor and mentee as a raw material subjected to an emotional labor process.

Colley, H. (2003). "Engagement mentoring for socially excluded youth: problematizing an 'holistic' approach to creating employability through the transformation of habitus." British Journal of Guidance & Counselling **31**(1): 77-99.

This paper traces the emergence of engagement mentoring, which seeks to re-engage socially excluded youth with the formal labor market by altering their attitudes, values, and beliefs. Engagement mentoring has been promoted in European and British policy as a holistic response to social exclusion, for example, in the new Connexions service. However, the original meaning of 'holism' has become contested, and policies and practices that claim to be holistic require clearer analysis. Drawing on Bourdieuian theory, and evidence from recent research, this paper interrogates the holistic claims of engagement mentoring from the perspective of its intended effects on mentees. It argues that the model treats personal disposition-habitus-as a raw material to be wrought into 'employable' dispositions, with little or no acknowledgement of institutional or structural fields of power. However, habitus is highly complex, with deep-rooted and collective aspects not easily transformed. A greater understanding of habitus might result in more genuinely holistic approaches to mentoring, and counter a perceptible policy drift towards totalitarian rather than holistic practice.

Collin, A. (1979). "Notes on some typologies of managerial development and the role of mentor in the process of adaptation of the individual to the organization." Personnel Review **8**(4): 10-14.

This paper outlines some typologies of managerial and professional development. It then examines some aspects of the informal structure of an organization and the significance of the role of mentor within that structure. It proposes that the mentor oversees the adaptation of the individual to the needs of the organization and thus influences the pattern of managerial development. The paper concludes with a discussion of the implications of this for management development programs and suggests some areas that call for further research. During a review of the literature concerned with career development there occurred several references to the question of the adaptation of the individual to the organization. This is a matter of significance in understanding both the individual's career development and the organization's practice of management development. Although the literature review was concerned with a relatively narrow field and there are, therefore, probably other relevant and important issues that are not raised below, it uncovered several research findings that are of particular significance for the practice of management development. They have been noted and are discussed in this paper. © Emerald Insights

Cooper, C. R. (2002). "Five bridges along students' pathways to college: A developmental blueprint of families, teachers, counselors, mentors, and peers in the Puente project." Educational Policy **16**(4): 607-622.

What program components might enhance our effectiveness in promoting college access for all students? This article considers five bridges along students' pathways to college: family involvement, culturally enriched teaching, counseling, mentoring, and peers. Longitudinal case studies of Puente students highlight how these bridges function along Latino students' pathways to their college and career aspirations. Bridges often extended beyond high school to support students' college enrollment, transfer and retention. A developmental model and prototype database are proposed for both qualitative case studies and variable-based analyses of bridges across students' worlds, family demographics, college and career aspirations, math and English pathways, and college admission and enrollment. Developmental models and longitudinal research can help outreach programs such as Puente strengthen bridges along multiple pathways to college and careers. As these tools advance science, policy, and practices, they can also transform academic pipelines.

Corno, L. and E. Quellmalz (2010). "Mentor: Inside and Out." Educational Psychologist **45**(1): 69-70.

In this article, Lyn Corno and Edys Quellmalz reflect on their experiences with Merl Wittrock as a supportive mentor early in their careers.

Corzine, J. B., G. F. Buntzman, et al. (1994). "Mentoring, downsizing, gender and career outcomes." Journal of Social Behavior and Personality **9**(3): 517-528.

The present study assessed the effects of mentoring on career plateaus as well as on salary and job satisfaction in the turbulent U.S. banking industry. Also examined were effects of downsizing and gender on career outcomes. Among bank officers, mentoring was associated with job satisfaction and with not having

reached a career plateau. Gender was related to salary level with salaries significantly higher for men. Downsizing was also associated with higher salaries. These findings, in a changing economic and legal environment, suggest the value of mentoring programs in organizations and a need for additional research regarding salaries in downsized firms.

Cosgrove, T. J. (1986). "The effects of participation in a mentoring transcript program on freshmen." Journal of College Student Development **27**(2): 119-124.

Administered the College Student Development Self-Assessment Inventory and the Student Opinion Survey to 153 university freshmen. Experimental Ss were assigned to mentors from the faculty, administration, and staff who met with these Ss an average of 3 times. Controls received no treatment. Experimental Ss demonstrated significantly increased confidence in their perceived abilities to set and achieve goals, solve problems, and make decisions. (15 ref) (PsycINFO Database Record © 2012 APA, all rights reserved)

Crasborn, F., P. Hennissen, et al. (2008). "Promoting versatility in mentor teachers' use of supervisory skills." Teaching and Teacher Education **24**(3): 499-514.

Mentor teachers need a versatile supervisory skills repertoire. Besides taking the prevalent role of daily advisor and instructor, mentor teachers should also be able to stimulate reflection in student teachers. Video recordings of 60 mentoring dialogues were analyzed both before and after a mentor teacher training aimed at developing the encourager role. Mentor teachers' repertoires of supervisory skills were found to consist of an average of seven supervisory skills. After training, a shift was observed in the frequencies and duration with which supervisory skills were used. Although considerable inter-individual variability existed between mentor teachers, training positively affected the use of supervisory skills for stimulating reflection in student teachers. © 2007 Elsevier Ltd. All rights reserved.

Crasborn, F., P. Hennissen, et al. (2010). "Capturing mentor teachers' reflective moments during mentoring dialogues." Teachers and Teaching **16**(1): 7-29.

The main goal of the current study is to capture differential frequencies of mentor teachers' reflective moments, as indicators of different levels of consciousness in mentor teachers' use and acquisition of supervisory skills during mentoring dialogues. For each of the 30 participants, two mentoring dialogues were analyzed: one before and one after they were trained in supervisory skills. To capture the frequency of reflective moments, the stimulated recall technique and a specially developed push-button device were combined in a two-method approach. The data of the study suggest the existence of different levels of consciousness in acquiring and using supervisory skills, the possibility of measuring reflectivity using concurrent and retrospective methods simultaneously, and the potential of such measurements to inform and improve professional development opportunities for mentor teachers.

Crasborn, F., P. Hennissen, et al. (2011). "Exploring a two-dimensional model of mentor

teacher roles in mentoring dialogues." Teaching and Teacher Education **27**(2): 320-331.
In this study, a two-dimensional model of mentor teacher roles in mentoring dialogues, entitled MERID, is explored empirically. Data regarding five aspects of mentoring dialogues were collected, using a sample of 20 transcriptions of mentoring dialogues, in which 112 topics were discussed and 440 mentor teacher utterances emerged. Correlations between the five aspects were determined and a cluster analysis was conducted. There is empirical support for the model and it is a useful framework to promote reflection on mentor teachers' supervisory behaviour. © 2010 Elsevier Ltd. All rights reserved.

Crespi, T. D., B. A. Fischetti, et al. (1998). "Supervision and mentoring for professional employment - Resumes and interviewing for prospective school psychologists." School Psychology International **19**(3): 239-250.
This article is intended to provide the internship supervisor and advanced graduate student in school psychology with a resource and guide for preparing for professional employment. While the preparation for employment occurs throughout graduate education, final preparatory steps are critical to employment: (1) preparing a portfolio, (2) developing a resume, (3) providing sample psychological reports, (4) interviewing, (5) securing references, and (6) making application for certification. Information is provided on each area, with a sample cover letter and resume included for the emerging school psychologist.

Crisp, G. (2009). "Conceptualization and Initial Validation of the College Student Mentoring Scale (CSMS)." Journal of College Student Development **50**(2): 177-194.
The prevalence of conceptually valid mentoring relationships in higher education is currently unknown due to a lack of a valid conceptualization within the literature. This article examines the construct validity of College Student Mentoring Scale (CSMS) with an eye toward identifying developmental support functions that should be provided to students. Participants were selected from a stratified random sample of courses offered in the fall of 2006 at a community college in the south-central area of the United States (n = 351). Results of the confirmatory factor analysis indicated the constructs were valid and a higher-order factor analysis revealed the existence of a second-order construct, Mentoring. Goodness of fit statistics suggested that the best fitting model did not hold well across ethnic groups however, the hypothesized factor structure was invariant for men and women. Implications for student affairs practice and future research are discussed.

Crisp, G. (2010). "The Impact of Mentoring on the Success of Community College Students." Review of Higher Education **34**(1): 39-60.
This study examines the influence of a conceptually valid mentoring experience on community college students' persistence decisions. Participants were selected from a random sample of core courses offered in the fall of 2006 at a community college in the south-central area of the United States (n = 320). Results of the structural equation modeling analysis indicate that mentoring significantly predicted the degree to which students became socially and academically

integrated. Mentoring was also found to indirectly influence students' intent to persist, as mediated by their commitment to earning a college degree.

Cronanhillix, T., L. K. Gensheimer, et al. (1986). "Students' views of mentors in psychology graduate training." Teaching of Psychology **13**(3): 123-127.

This study examined the prevalence and role of mentors in graduate training from the viewpoint of students. Ninety graduate psychology students from a large Midwestern university responded to a survey about the characteristics of mentors, the roles mentors play in their professional and social lives, and why some students do not have a mentor. Over 50% of the respondents had mentors. Inability to find a satisfactory mentor was the predominant reason for not having one. Findings suggest that mentors serve supportive functions and promote professional productivity as indicated by research involvement, publications, and conference papers. Personality characteristics distinguish good from poor mentors much more frequently than do intellectual competence or professional activity.

Cross, S. (1998). "Roots and wings: Mentoring." Innovations in Education and Training International **35**(3): 224-230.

What's in a name? Who was this Mentor, and why should we all have one? Aren't a manager, teacher and friend sufficient? This paper suggests some answers to these questions through a look at a segment of the literature on the ways people learn in the workplace and consideration of some practical examples of schemes, which their originators describe as mentoring. Finally, since everyone is talking about intellectual capital and learning organizations at the moment, do mentors enable people to grow from sound roots and then take their wings and fly?

Cuckle, P. and S. Clarke (2002). "Mentoring student-teachers in schools: views, practices and access to ICT." Journal of Computer Assisted Learning **18**(3): 330-340.

There is evidence from a number of publications that use of Information and Communications Technology (ICT) varies amongst serving and student-teachers in different subject specialties Teacher-mentors are an obvious source of support during school experience; the relationship between student-teachers' use of ICT and that of their serving teacher-mentors is not clear. This study was part of a series of projects investigating ICT use during initial teacher training across different subject areas. Questionnaires, returned by 216 teacher-mentors in secondary schools were analyzed. The questionnaires investigated use of ICT in teaching, availability of equipment and support, views on using ICT and preparations made for student teachers to use ICT. In general, teacher-mentors were competent and frequent ICT users and were often active in preparing student teachers' use. However, using case studies with 13 pairs of student-teachers and their teacher-mentors, it seems that similar preparations made by teacher-mentors did not always result in individual student-teachers using ICT to the same extent as peers. The possible reasons for differences were difficulties with access to computers, lack of active support and role models amongst serving teachers (including teacher-mentors) and competing demands on student teachers' time. It is suggested that in order to increase the use of ICT in their teaching, student

teachers are likely to need better access to equipment, more active support from serving teachers and encouragement to include time for ICT in their school experience.

Cunningham, S. (1999). "The nature of workplace mentoring relationships among faculty members in Christian higher education." Journal of Higher Education **70**(4): 441-463.
Full-time faculty teaching in Christian higher education were surveyed about how they envision and practice mentoring among themselves. The study, a replication of a 1991 study by Sands, Parson, and Duane, examined who is involved in mentoring, why, under what conditions, what is done, and what faculty desire in mentoring relationships.

Daniel, J. H. (2009). "Next Generation: A Mentoring Program for Black Female Psychologists." Professional Psychology-Research and Practice **40**(3): 299-305.
Black women remain grossly underrepresented in academic psychology departments at major American universities. With better representation, their intellectual contributions to research, practice, and education in the discipline could significantly expand the margins of the field. Given the positive effect of Black faculty on priming the pipeline of graduate students, increasing the number of Black faculty would likely improve the recruitment and retention of Black graduate students. A pilot mentoring group designed specifically for Black female psychologists with a commitment to academic research careers provided significant beneficial experiences and demonstrated good success in the desired direction.

Dansky, K. H. (1996). "The effect of group mentoring on career outcomes." Group & Organization Management **21**(1): 5-21.
The importance of mentoring as a component of career development has been well supported empirically. Yet mentors may not be a viable option for individuals who would like to progress on a management track but have limited opportunities to do so. This study proposed that professional associations might function as a source of mentoring for its members. The influence of affiliation with a professional organization on was outcomes were tested. Four components of group mentoring were identified through factor analysis: psychosocial support, inclusion, networking, and role modeling. Inclusion predicted higher job attainment, whereas role modeling made a significant contribution to salary. This study has practical implications for management development.

Daresh, J. (2004). "Mentoring school leaders: Professional promise or predictable problems?" Educational Administration Quarterly **40**(4): 495-517.
This article provides an overview of the use of mentoring programs as a tool to be used in the pre-service preparation, induction, and ongoing in-service education of school administrators. Typical practices are described, along with the assumed value found in mentoring. In addition, the limitations and potential problems are identified. The article concludes with a consideration of some of the policy implications related to the adoption of mentoring and possible future research that

may be carried out in this area.

Darwin, A. (2000). "Critical reflections on mentoring in work settings." Adult Education Quarterly **50**(3): 197-211.

Mentoring is presently at the forefront of strategies to improve workplace learning. However, as is often the case, functionalist models of mentoring dominate, and as a result, research on mentoring is rather narrowly conceived. This article was designed to redress this imbalance by critically reflecting on mentoring from contrasting theoretical perspectives. Functionalist conceptions of mentoring construct it as a rational and hierarchical process, often involving an older mentor and a younger learner In contrast, critical or Radical Humanist conceptions high light contests for meaning but, more important, want to expose unequal and often exploitative power relations. Many mentoring relationships undoubtedly involve high levels of nurturance, but as this article demonstrates, taken-for-granted practices need to be brought to the surface for mentoring to be regarded as a useful learning tool in today's work settings.

Darwin, A. and E. Palmer (2009). "Mentoring circles in higher education." Higher Education Research & Development **28**(2): 125-136.

Traditionally, mentoring in higher education institutions has either occurred informally or as a planned program where junior staff members are matched with experienced staff members in a formal one-to-one program. While such programs have reported benefits to participants, many miss out on the opportunity. Further, mentoring dyads do little to enhance a more collaborative atmosphere in higher education settings. Alternative mentoring methods do exist and can provide advantages to the traditional approach. Mentoring circles are an innovative example of these alternative methods. The mentoring activity and subsequent evaluation described in this paper sought to explore the perceived benefits of a group mentoring model for academic staff.

Dawley, D. D., M. C. Andrews, et al. (2010). "Enhancing the ties that bind: mentoring as a moderator." Career Development International **15**(2-3): 259-278.

The purpose of this paper is to examine the moderating role of mentoring on the relationships between perceived organizational support, supervisor support, and job fit on turnover intentions. Design/methodology/approach - The paper explains the topics, provides background and discussion of the main concepts. The study uses regression analyses to test the moderating relationships using a total sample of 610 employees split among three separate organizations. Findings - The results suggest that mentoring becomes more effective in reducing turnover intentions as employees experience increasing levels of perceived organizational support, supervisor support, and job fit. Practical implications - The results suggest mentoring can be beneficial to both organizations and individuals. Organizations benefit by improving employee retention. Likewise, individuals benefit through strengthened relationships provided by mentoring and the associated positive outcomes. Originality/value - The paper makes a contribution to the literature by being among the first to examine mentoring as a potential moderator in the

context of perceived organizational support, supervisor support, job fit, and turnover intentions.

De Bruyn, E. H. (2004). "Development of the mentor behaviour rating scale." School Psychology International **25**(2): 185-192.

The present study described the development of the Mentor Behaviour Rating Scale. In the Dutch secondary educational system, the mentor is a teacher responsible for individual students' academic and socio-emotional progress throughout the academic year. In order to assess the mentor behaviours conducive to pupils' acceptance levels of their particular mentor, two studies were conducted. In the first study, students (n = 625) rated their mentor on 44 items. Through factor analysis this was reduced to 18 items. In the second study, the reduced scale was administered to 745 students. This revealed the existence of two factors, Respect and Humour. These two mentor behavioural factors were highly predictive of the acceptance levels of students (R-2 = 0.52).

de Janasz, S. C. and S. E. Sullivan (2004). "Multiple mentoring in academe: Developing the professorial network." Journal of Vocational Behavior **64**(2): 263-283.

Previous studies in business organizations have shown that mentoring provides numerous benefits for both individuals and organizations. Most of this mentoring research has been based on traditional, hierarchical mentor-protégé relationships in non-academic settings. We discuss why there is little empirical research on faculty mentoring and review changes in professors' careers that necessitate a fresh look at this issue. We suggest that because of environmental changes, the traditional model of professors being guided throughout their careers by one primary mentor, usually the dissertation advisor, may no longer be realistic or desirable. Instead, professors may be better served by a portfolio of mentors (Baugh Scandura, 1999; Higgins & Kram, 2001) who facilitate the protégé's development of career competencies. Building on the work of intelligent careers (DeFillippi & Arthur, 1996), we examine how the career competencies of knowing why, how, and whom interact with learning demands to produce the need for faculty to develop multiple mentoring relationships across their academic career. We build on this conceptualization by considering the role of signaling of career competencies (Jones, 2002) in developing the professorial network, offering managerial implications in developing mentoring programs, and discussing avenues for future research. © 2003 Elsevier Inc. All rights reserved.

Dempsey, I., M. Arthur-Kelly, et al. (2009). "Mentoring early career special education teachers." Australian Journal of Education **53**(3): 294-305.

For some time, special education has been plagued by shortages of qualified teaching staff and by high turnover rates for these staff. While several factors-external, employment and personal-are largely responsible for this situation, the research demonstrates that the initial professional experiences of early career teachers are closely associated with their longevity in the field. This paper reviews the literature on mentoring support for beginning teachers, mentoring models and the use of information technologies in mentoring support. The paper

concludes with recommendations for methods of support for Australian early career special-education teachers.

Devos, A. (2010). "New teachers, mentoring and the discursive formation of professional identity." Teaching and Teacher Education **26**(5): 1219-1223.

This paper considers the implications of mentoring for the discursive formation of professional identities of newly graduated teachers. The site for this analysis is the Teacher Mentoring and Induction Program, in Victoria, Australia. The paper draws attention to the effects of mentoring as conceived in this context on the construction of new teacher identities, the close relationship between professional standards and mentoring, the relationship between mentoring and the performative culture of schools, and what it means to be 'a good teacher' within this culture. The aim is to reposition mentoring as a product of its contexts and times, and in so doing contribute to the development of a more theoretically informed and critical platform from which to conduct research into its effects and benefits. © 2010 Elsevier Ltd. All rights reserved.

DiRenzo, M. S., F. Linnehan, et al. (2010). "A moderated mediation model of e-mentoring." Journal of Vocational Behavior **76**(2): 292-305.

Based on a longitudinal sample of 1381, this study develops and tests a moderated mediation model of electronic mentoring (e-mentoring). Results show evidence that frequency of interaction between protégés and mentors mediates the relationships between program antecedents (the protégé's previous internet experience and initial motivation to participate) and program outcomes of general self-efficacy and task-efficacy. In addition, the protégé's general self-efficacy prior to starting the program was found to moderate the relationships between protégé and mentor interaction frequency and program outcomes of task and general self-efficacy. Unexpectedly, having mentors in the past was not significantly related to program outcomes. Practical implications and future areas of research are identified and discussed. © 2009 Elsevier Inc. All rights reserved.

Dirsmith, M. W. and M. A. Covaleski (1985). "Informal communications, non-formal communications and mentoring in public accounting firms." Accounting, Organizations and Society **10**(2): 149-169.

Control is important within public accounting firms for a variety of reasons. Yet professional pronouncements are limited in providing guidance to auditors in the form of formally stated rules and requirements. The purpose of this article is to examine the non-formalized, non-rule oriented approaches employed in large public accounting firms to effect control. More specifically, it is directed towards understanding the possible roles of informal and non-formal communications and mentoring in managing public accounting firms. Based upon evidence gathered using a naturalistic, qualitative research methodology, it is concluded that: (1) informal communications exist in public accounting firms, play a limited role in informing organizational members of the politics and power within the organization, and are of some benefit to lower level individuals; and (2) non-formal communications and mentoring are involved with the performance of audit tasks, socialization of the individual firm, and instruction as to politics and power within the organization, and benefit the protégé, mentor and firm, though at some cost. Implications of the study are also explored. © Elsevier Ltd.

Dockery, K. L. and R. J. Sahl (1998). "Team mentoring - Boosts employee development." Workforce **77**(8): 31-34.

Focuses on how Fuller Company, a Bethlehem, Pennsylvania-based engineering company, addressed its employee-turnover problems. Program which the company designed and implemented to address the problem; Importance of retaining employees for the company. © Library.ru

Dolan, E. and D. Johnson (2009). "Toward a Holistic View of Undergraduate Research Experiences: An Exploratory Study of Impact on Graduate/Postdoctoral Mentors." Journal of Science Education and Technology **18**(6): 487-500.

Involvement in research has become a fixture in undergraduate science education across the United States. Graduate and postdoctoral students are often called upon to mentor undergraduates at research universities, yet mentoring relationships in undergraduate-graduate/postdoctoral student dyads and undergraduate-graduate/postdoctoral student-faculty triads have been largely unexamined. Here, we present findings of an exploratory case study framed by relational theory that identifies the motives, gains, and challenges reported by graduate/postdoctoral students who mentored undergraduates in research. Graduate/postdoctoral mentors experienced a wide range of gains, including improved qualifications and career preparation, cognitive and socio-emotional growth, improved teaching and communication skills, and greater enjoyment of their own apprenticeship experience. Notably, graduate/postdoctoral mentors reported twice as many gains as challenges, neither of which were limited by their motives for mentoring. Indeed, their motives were fairly narrow and immediate, focusing on how mentoring would serve as a means to an end, while the gains and challenges they reported indicated a longer-term vision of how mentoring influenced their personal, cognitive, and professional growth. We propose that understanding the impact of mentoring undergraduates on the education and training of graduate/postdoctoral students may uncover new ideas about the benefits reaped through undergraduate research experiences.

Donaldson, S. I., E. A. Ensher, et al. (2000). "Longitudinal examination of mentoring relationships on organizational commitment and citizenship behavior." Journal of Career Development **26**(4): 233-249.

This article examines how the quality of mentoring relationships affect valued organizational behaviors over time. Two organizationally valued outcomes likely to be affected by the quality of an employee's mentoring relationships are organizational commitment and citizenship behavior. The study focuses on the quality of the mentoring relationship, employing a longitudinal design to examine organizational commitment and citizenship behavior, assessing organizational citizenship behavior using both self and co-worker reports, and studying mentoring relationships in a diverse population of non-professional employees. Several important implications for researchers, managers, and career development practitioners alike are discussed.

Dondero, G. M. (1997). "Mentors: Beacons of hope." Adolescence **32**(128): 881-886.

Mentoring is an old idea that works. Research has shown that mentoring is one of the five short-term imperatives for reversing the high dropout rate of high school students. Mentoring is a powerful way to provide adult contacts for youths who receive little guidance in their schools, homes, communities, and workplaces. Supportive one-on-one relationships provide youths with the opportunity to explore career paths and broaden their horizons. Adult mentors serve as beacons of hope for young people adrift in an uncertain world.

Dreher, G. F. (1998). "Gender, mentoring experiences, and salary attainment among graduates of an historically black university." Journal of Vocational Behavior **53**(3): 401-416.

The effects of gender and the development of mentoring relationships on salary attainment were examined among African-American graduates of a historically black institution of higher education. After controlling for a series of background, career, and organizational factors, there were no gender-based pay differences, and only those who had established mentoring relationships with white-male mentors displayed compensation advantages over graduates who had never formed mentoring relationships. These results are comparable to findings reported for majority and minority graduates of majority-culture schools of business and have implications concerning the ways in which companies and individuals work to maximize career potential. © 1998 Academic Press.

Dreher, G. F. and R. A. Ash (1990). "A comparative study of mentoring among men and women in managerial, professional, and technical positions." Journal of Applied Psychology **75**(5): 539-546.

Linkages between a global measure of mentoring experiences, gender, and 4 outcome variables were investigated. Also, the moderating effects of gender were examined to determine whether mentoring is differentially associated with career outcomes for men and women. Business school graduates (147 women and 173 men) provided information about their backgrounds, companies, positions, mentoring practices, compensation, and compensation satisfaction. Individuals experiencing extensive mentoring relationships reported receiving more promotions, had higher incomes, and were more satisfied with their pay and benefits than individuals experiencing less extensive mentoring relationships. There were no gender differences with regard to the frequency of mentoring activities, and gender did not moderate mentoring–outcome relationships. The results are discussed within the context of a $7,990 income difference between men and women. (PsycINFO Database Record © 2012 APA, all rights reserved)

Dreher, G. F. and T. H. Cox (1996). "Race, gender, and opportunity: A study of compensation attainment and the establishment of mentoring relationships." Journal of Applied Psychology **81**(3): 297-308.

In this article, hypotheses concerned with how race, gender, and mentoring experiences account for compensation outcomes among master of business administration (MBA) program graduates are considered. African-American and Hispanic MBAs were less likely than their White counterparts to establish

mentoring relationships with White men. Women with MBAs were less likely than men with MBAs to form such relationships. Graduates who had been able to establish mentoring relationships with White men displayed an average annual compensation advantage of $16,840 over those with mentors displaying other demographic profiles. There were no compensation differences between those who had established mentoring relationships with women or minority men and those who had not established a mentoring relationship.

Dreher, G. F. and T. W. Dougherty (1997). "Substitutes for career mentoring: Promoting equal opportunity through career management and assessment systems." Journal of Vocational Behavior **51**(1): 110-124.

In this theoretical paper we address the topic of mentoring by describing substitutes for career-oriented mentoring relationships with senior managers. Research propositions are developed that relate these substitutes to the career success of women and nonwhite men in corporations dominated by white male executives. These substitutes can provide ways to overcome career barriers faced by women and nonwhite men, barriers that can be attributable to a lack of equal access to the mentors who are most able to promote career success among their protégés. © 1997 Academic Press.

Duff, C. (2000). "Online mentoring." Educational Leadership **58**(2): 49-52.

When Ursuline Academy girls need career advice, guidance about classes, or personal support, they e-mail their mentors-professional women whose knowledge of the "real world" helps the students make informed choices.

Duin, A. H., E. Lammers, et al. (1994). "Responding to 9th grade students via telecommunications - College mentor strategies and development over time." Research in the Teaching of English **28**(2): 117-153.

The goal of this study was to expand our understanding of mentoring situated within electronic exchanges. Focusing on three graduate and five undergraduate mentors' responses via telecommunications, we explored the strategies mentors used to make their reading and understanding of the texts explicit to their students, the responses mentors provided to demonstrate how students might revise, and mentors' perceptions toward mentoring. Mentors responded to eight drafts from 24 ninth-grade students over an eight-week period, generating an average of 20 comments per student draft. Data collected included response grids of each mentor's comments to students, interviews with mentors midway and at the end of the study, and journals kept by the mentors. Results showed that mentor pre-project expectations about responses they might make to students did not correspond to their actual responses, and that as the project progressed, mentor responses formed patterns corresponding to the draft of the students' writing assignment. Additional differences were found based on mentors' previous teaching experience, gender, and requests for feedback. Mentors expressed as their greatest difficulty not knowing which comments were perceived by students as most helpful.

Dutta, R., S. L. Hawkes, et al. (2011). "One year outcomes of a mentoring scheme for female academics: a pilot study at the Institute of Psychiatry, King's College London." BMC Medical Education **11**.

Background: The professional development of under-represented faculty may be enhanced by mentorship, but we understand very little about the mechanisms by which mentoring brings about change. Our study posed the research question, what are the mechanisms by which mentoring may support professional development in under-represented groups? The study aims to: (i) to pilot a mentoring scheme for female academics; (ii) to compare various health-related and attitudinal measures in mentees at baseline, 6 months, and 1 year into the mentoring relationship and, (iii) to compare pre-mentoring expectations to outcomes at 6 months and 1 year follow-up for mentees and mentors. Methods: Female academic mentees were matched 1: 1 or 2: 1 with more senior academic mentors. Online surveys were conducted to compare health-related and attitudinal measures and expectations of mentoring at baseline with outcomes at 6 months and 1 year using paired t-tests and McNemar's test for matched cohort data. Results: N = 46 mentoring pairs, 44 (96%) mentees completed the pre-mentoring survey, 37 (80%) at 6 months and 30 (65%) at 1 year. Job-related wellbeing (anxiety-contentment), self-esteem and self-efficacy all improved significantly and work-family conflict diminished at 1 year. Highest expectations were career progression (39; 89%), increased confidence (38; 87%), development of networking skills (33; 75%), better time-management (29; 66%) and better work-life balance (28; 64%). For mentees, expectations at baseline were higher than perceived achievements at a 6 months or 1 year follow-up. For mentors (N = 39), 36 (92%) completed the pre-mentoring survey, 32 (82%) at 6 months and 28 (72%) at 1 year. Mentors' highest expectations were of satisfaction in seeing people progress (26; 69%), seeing junior staff develop and grow (19; 53%), helping solve problems (18; 50%), helping women advance their careers (18; 50%) and helping remove career obstacles (13; 36%). Overall, gains at 6 months and 1 year exceeded pre-mentoring expectations. Conclusions: This uncontrolled pilot study suggests that mentoring can improve aspects of job-related wellbeing, self-esteem and self-efficacy over 6 months, with further improvements seen after 1 year for female academics. Work-family conflict can also diminish. Despite these gains, mentees' prior expectations were shown to be unrealistically high, but mentors' expectations were exceeded.

Dworkin, T. M., V. Maurer, et al. (2012). "Career mentoring for women: New horizons/Expanded methods." Business Horizons **55**(4): 363-372.

Although women make up nearly half of the workforce in the United States, the number of women who hold senior management positions in large U.S. firms continues to be disproportionately low. This fact raises concerns about individual fairness and equality of opportunity. Herein, we demonstrate that the use of strong mentoring programs holds great promise as a way to increase the number of women in senior management roles. An extensive study supports the mentoring program recommendation, as do examples of foreign firms that far more readily employ women in executive positions than do U.S. firms. © 2012 Kelley School

of Business, Indiana University. All rights reserved.

Eby, L. T. (1997). "Alternative forms of mentoring in changing organizational environments: A conceptual extension of the mentoring literature." Journal of Vocational Behavior **51**(1): 125-144.

Mentoring is examined in the context of the changing nature of work. In this context, the construct of mentoring is expanded to consider its use under a variety of situations facing today's organizations such as more participative work arrangements, corporate restructuring, and domestic and international expansion. A typology that differentiates mentoring on two primary dimensions is presented: the form of the relationship (lateral or hierarchical mentor-protégé relationship) and the type of skill development obtained through the mentoring experience (job-related or career-related). Specific examples of alternative forms of mentoring that can be used to help individuals and organizations adapt to organizational change are presented. An agenda for future research, as well as implications for counselors and human resource management professionals, is presented. © 1997 Academic Press.

Eby, L. T., M. M. Butts, et al. (2010). "Are bad experiences stronger than good ones in mentoring relationships? Evidence from the protégé and mentor perspective." Journal of Vocational Behavior **77**(1): 81-92.

Two studies examined the relative importance of good versus bad mentoring experiences in predicting subjective states associated with the mentoring relationship. Study 1 examined the protégé perspective and found general support for the proposition that, on average, bad is stronger than good in predicting protégé outcomes. Study 2 adopted the mentor perspective and found mixed support for the prediction that, on average, bad is stronger than good. The results are discussed in terms of advancing research and theory on the relational processes associated with mentoring in the workplace and the need to consider the relational context to more fully understand the relative predictive power of good and bad mentoring experiences. © 2010 Elsevier Inc.

Eby, L. T., J. R. Durley, et al. (2006). "The relationship between short-term mentoring benefits and long-term mentor outcomes." Journal of Vocational Behavior **69**(3): 424-444.

Little is known about the short- and long-term benefits mentors gain from their mentoring relationships. This study examined the extent to which short-term proximal benefits reported by mentors (improved job performance, recognition by others, rewarding experience, and loyal base of support) predicted the long-term distal outcomes of mentor career success, work attitudes and behavioral intentions to mentor in the future. Mentors' reports of short-term mentoring benefits significantly predicted their work attitudes and their intention to mentor again in the future, but were unrelated to their career success. Upon closer inspection, short-term instrumental mentor benefits (improved job performance, recognition by others) were more important in predicting mentor work attitudes, whereas short-term relational mentor benefits (rewarding experience, loyal base of

support) were more important in predicting intentions to mentor in the future. Implications for mentoring theory, future research, and practice are discussed. © 2006 Elsevier Inc.

Eby, L. T. and A. Lockwood (2005). "Protégés' and mentors' reactions to participating in formal mentoring programs: A qualitative investigation." Journal of Vocational Behavior **67**(3): 441-458.

Mentors and protégés from two formal mentoring programs were interviewed about the benefits associated with program participation, problems encountered in the program, and recommendations for program improvements. The most commonly reported benefits for protégés included learning, coaching, career planning, and psychosocial support. Mentors most frequently reported learning, developing a personal relationship, personal gratification, and enhanced managerial skills. Both groups identified a range of problems including mentor protégé mismatches, scheduling difficulties, and geographic distance. Unique problems were also identified, including mentor neglect (by protégés), unmet expectations (by protégés), structural separation from the mentor (by protégés), and feelings of personal inadequacy (by mentors). Finally, suggestions for program improvement were identified such as clearer communication of program objectives, better matching, targeted participation in the program, and better program monitoring. Findings are discussed in terms of what we currently know about informal mentoring and implications for mentoring theory. Suggestions for mentoring practice are also discussed. © 2004 Elsevier Inc. All rights reserved.

Eby, L. T., A. L. Lockwood, et al. (2006). "Perceived support for mentoring: A multiple perspectives approach." Journal of Vocational Behavior **68**(2): 267-291.

Two studies were conducted to examine how perceptions of support for mentoring relate to mentoring attitudes and outcomes for both protégés and mentors, over and above established predictors. In study 1, protégés provided information on their perceptions of support for mentoring and mentoring received. As expected, perceived management support for mentoring wits positively related to career-related and psychosocial support; and perceived mentor accountability for mentoring was negatively related to mentoring problems. In study 2, we examined mentors' perceptions Of Support for mentoring in relation to their willingness to mentor others in the future and the extent to which they viewed their current relationship as complementary. Mentors' perceptions of management support for mentoring were positively related to their belief that mentoring relationships were mutually beneficial. However, consistent with theories of self-determination, mentors' perceptions of their own accountability in the relationship increased their willingness to mentor others in the future decreased. Implications for mentoring theory, future research, and applied practice are discussed. © 2005 Elsevier Inc. All rights reserved.

Edwards, A. and L. Protheroe (2004). "Teaching by proxy: understanding how mentors are positioned in partnerships." Oxford Review of Education **30**(2): 183-197.

The evidence discussed in this paper was gathered in a one-year study of how

student teachers learn about learning in primary schools. In examining mentoring we pursued three research questions in order to increase our understanding of how mentoring processes were helping student teachers to work responsively in classrooms with pupils. The questions were as follows. What do mentors believe they offer student teachers as they learn to teach in primary school classrooms? What do they offer students? What does the way they support student teachers tell us about how mentors are positioned in the activity systems of their own schools and initial teacher training programmes? The first two questions focus on mentoring as mediation of the knowledge of primary teaching and induction into a community of practice of primary teaching found in each partnership school. The third question takes us to the activity systems in which this mediation occurs. The activity theory analysis allows us to see how mentors can be positioned in their own school and in training partnerships, the dilemmas that ensue from the ambivalence of their position and the implications for the learning of student teachers.

Elkin, J., V. Cathro, et al. (2012). "The e-mentoring of expatriates: mapping existing research domains and new opportunities." European Journal of International Management **6**(1): 45-62.

Considerable research has been undertaken into the role of mentoring and also of expatriation, with attention being paid to mentoring expatriates. Given the growth of Computer Mediated Communication (CMC) and the rise of the techno-savvy Generation Y, it is surprising that very little has been written about the e-mentoring of expatriates. This paper begins to develop a framework for possible research in the domain created where mentoring, CMC, and the management of expatriates intersect. It presents a review of the literature, draws together a theoretical framework and suggests research directions for future empirical examination.

Ellis, J., J. Small-McGinley, et al. (1998). "Mentor-supported literacy development in elementary schools." Alberta Journal of Educational Research **44**(2): 149-162.

This article reports on a study of volunteer mentorship programs intended to support literacy development in early elementary grades. To provide a context for the study and ifs questions, if reviews issues related to the importance of early literacy development, various forms of early intervention, mentorship programs, and evaluation issues for both literacy programs and mentorship programs. In this first phase of the research program, the researchers sought to learn children's, mentors', and teachers' perspectives on the quality of the relationships established and the academic benefits of the program. The results indicated that such programs are a promising direction for further development and research work.

Engels, D. W. (2012). "Edwin L. Herr: Preeminent Scholar, Leader, Advocate, and Mentor." Journal of Counseling and Development **90**(1): 71-80.

This profile celebrates and chronicles selected themes and highlights of the ideas, scholarly accomplishments, leadership, humanity, and work ethic of Edwin L. Herr, one of the major forces in the counseling profession, for purposes of

archiving elements of his history and stimulating continuity of his ideas, achievements, and dedication.

Ensher, E. A., E. J. Grant-Vallone, et al. (2002). "Effects of perceived attitudinal and demographic similarity on protégés' support and satisfaction gained from their mentoring relationships." Journal of Applied Social Psychology **32**(7): 1407-1430.

The purpose of this study was to examine how perceived attitudinal similarity (measured as similarity in general outlook, values, and problem-solving approach) and demographic similarity operationalized as similarity in race and gender, affected protégés' support and satisfaction from their informal mentoring relationships. Scandura and Katerberg's (1988) 3-factor scale of mentor functions was used to measure vocational, psychosocial, and role-modeling support. Participants were 144 protégés from diverse backgrounds (54% female; 54% non-White). Perceived attitudinal similarity was a better predictor of protégés' satisfaction with and support received from their mentors than was demographic similarity.

Ensher, E. A., C. Heun, et al. (2003). "Online mentoring and computer-mediated communication: New directions in research." Journal of Vocational Behavior **63**(2): 264-288.

While there has been a veritable explosion of online mentoring websites and opportunities within a wide variety of professions, very few academic articles to date have addressed this phenomenon. The purpose of this article is to remedy this gap in our knowledge by: (a) suggesting that the Internet can provide a viable context for mentoring within defined roles, (b) presenting a new typology of mentoring based on the computer-mediated-communication (CMC) literature, and in doing so suggest new opportunities and challenges, and (c) providing recommendations for researchers and practitioners to explore online mentoring. Past research has found that within the three functions of mentoring (psychosocial, vocational, and role modeling), a mentor can play a number of roles such as business coach, friend, counselor, and/or teacher to a protégé. We extend past research by assessing the major issues applicable to these mentor roles through an examination of CMC literature. We provide specific research propositions to inspire future research into online mentoring and its related contexts, roles, opportunities, and challenges. © 2003 Elsevier Science (USA). All rights reserved.

Ensher, E. A. and S. E. Murphy (1997). "Effects of race, gender, perceived similarity, and contact on mentor relationships." Journal of Vocational Behavior **50**(3): 460-481.

This study examined the effects of similarity, both actual (race and gender) and perceived, and amount of contact between mentor and protégé on the quality of mentor relationships. Mentor relationship quality was measured by liking, satisfaction, intended retention, and degree of psychosocial and instrumental functions experienced by the protégé. The participants were 104 summer intern protégés and their volunteer staff mentors employed at a large west coast media organization. Protégés were randomly assigned to one of two types of mentor

pairings-same and different race mentors. Results indicate that liking, satisfaction, and contacts with a mentor were higher when protégés' perceived themselves to be more similar to their mentors. Actual race pairing was related to protégés' perceptions of the amount of career support and to mentors' liking of protégés. © 1997 Academic Press.

Ensher, E. A. and S. E. Murphy (2011). "The Mentoring Relationship Challenges Scale: The impact of mentoring stage, type, and gender." Journal of Vocational Behavior **79**(1): 253-266.

The current study investigated the role of relational challenges as reported by 309 protégés in various stages and types of mentoring relationships. The Mentoring Relationship Challenges Scale (MRCS) was newly constructed using the results of an earlier qualitative study (Ensher & Murphy, 2005). The scale measured three factors of relational challenges which were: Demonstrating Commitment and Resilience, Measuring Up to a Mentor's Standards, and Career Goal and Risk Orientation. The results demonstrated that with respect to mentoring stages, those protégés in the beginning stages of their relationships reported experiencing significantly fewer challenges related to Demonstrating Commitment and Resilience than those in the mature or ending stages of the relationship. Also, it was found that the type of mentoring relationship (traditional, step-ahead, or peer) affected the prevalence of the three types of challenges. Protégés in peer relationships reported significantly fewer of all three types of challenges than those in step-ahead or traditional relationships. However, contrary to predictions, there were no significant differences found between those in informal versus those in formal mentoring relationships. As expected, protégé and mentor gender interacted significantly. Female protégés reported experiencing significantly fewer challenges related to the factor of measuring up to a mentor's standards than did male protégés. Also, female protégés reported experiencing a significantly higher degree of relational challenges related to Career Goal and Risk Orientation from their male mentors than from their female mentors. Finally, after controlling for perceptions of career and psychosocial support for protégés in traditional mentoring relationships, two of the three relational challenges factors remained significant and explained a significant amount of variance in overall satisfaction with the mentoring relationship. This suggests that relational challenges, at least for traditional mentoring relationships, serve as an important mechanism to impact overall relationship satisfaction. © 2010 Elsevier Inc. All rights reserved.

Ensher, E. A., C. Thomas, et al. (2001). "Comparison of traditional, step-ahead, and peer mentoring on protégés' support, satisfaction, and perceptions of career success: A social exchange perspective." Journal of Business and Psychology **15**(3): 419-438.

This study applied social exchange theory as a conceptual framework to examine the effectiveness of various types of mentors and mentor support on protégés' satisfaction with their mentors, jobs, and perceived career success. Participants were 142 ethnically diverse protégés in informal mentoring relationships. It was found that role modeling, reciprocity, and vocational support predicted protégés' satisfaction with their mentors. Vocational support was a significant predictor of

protégés' job satisfaction and perceived career success. Protégés were more satisfied with, had higher job satisfaction, and reported that traditional mentors provided significantly more vocational and role modeling support than peer or step-ahead mentors.

Erkut, S. and J. R. Mokros (1984). "Professors as models and mentors for college students." American Educational Research Journal **21**(2): 399-417.

A questionnaire study among sophomores and seniors in five coeducational and one women's liberal arts college provided the data for this research. A return rate of 66% was achieved, yielding 723 subjects, all of whom were able to identify a professor who had demonstrated the kinds of qualities and skills they considered important for themselves. The results show that female students neither gravitate toward nor avoid female role models. They choose female faculty as models to the extent that women are available on campus. Men, on the other hand, avoid female models. They prefer high status, powerful male models who can promote their educational or career goals. Women, especially those choosing female models, look for the information that it is possible to combine a rewarding professional and family life. The responses of female and male students showed many more similarities than differences in the amount and nature of contact with models, mentoring performed by models, and modeling influences. Sex differences in the impact of models related to the type of college women attended. Women at the single sex college with male models were found to be academically most successful, felt more successful relative to their male and female peers, and more of these women planned to attend a graduate or professional school than any other group.

Espinoza-Herold, M. and V. Gonzalez (2007). "The voices of senior scholars on mentoring graduate students and junior scholars." Hispanic Journal of Behavioral Sciences **29**(3): 313-335.

Our objective is to document recommendations from senior scholars on effective strategies to mentor graduate students and junior faculty. Mentors' recommendations stated at a national symposium and follow-up interviews are discussed in relation to literature. General themes derived from mentors' recommendations indicate that characteristics of good mentors include (a) acting as role models for learning how to use coping strategies and to develop resiliency to overcome challenges, (b) facilitating opportunities for scholarly productivity and academic success, (c) networking with colleagues to form a collective power, and (d) establishing an empathic connection between the mentor's multicultural experiences and the protégé's diverse background. Conclusions refer to the need to continue advancing diversity issues and mentoring programs for junior scholars in American universities.

Essex, J. (2011). "An exploration of the effects of mentoring on post-16 Chemistry students' exam performance." Chemistry Education Research and Practice **12**(1): 68-73.

In response to a concern about the persistent underachievement in exams of Chemistry students in one school, a pilot study was carried out to see if

mentoring-style intervention could improve exam performance. Individual personalized interviews were offered to a class, during which support for the development of the skills and subject knowledge for exam success was given. Student feedback indicated that they felt the individual support had assisted with their learning, but the benefit was not borne out by a statistically significant improvement in their exam results. Students reported that the gains were extended into other Science subjects, although again, this was not demonstrable from the analysis of exam results. Despite not giving a significant improvement in marks, mentoring was popular with students. The study points to a number of other, less easily quantifiable, gains that might enhance students' academic success in the medium term. The findings do, however, also raise questions as to whether mentoring represents an efficient use of resources for the purpose of raising attainment.

Evans, T. W. (2000). "The new mentors." Teachers College Record **102**(1): 244-263.
Although we have a tendency to lay blame on our public schools for the current state of American education, a plausible case can be made for another major contributing factor, as well. Over the past decades, there has been a diminution in the number of caring adults who pay attention to our children. We were once a mentoring society, we are not now. In the past few years, a surge of new mentors has emerged, however rising from programs sponsored by business, community, and national organizations. This influx may make a difference, but the new mentors, though numbering in the millions, presently fall far short of filling the mentor gap. This article, through in-depth vertical analyses of four case studies, attempts to probe the question of what mentors do to enhance education and the school and career readiness of mentees.

Evertson, C. M. and M. W. Smithey (2000). "Mentoring effects on protégés' classroom practice: An experimental field study." Journal of Educational Research **93**(5): 294-304.
The classroom practices of protégés assisted by mentors who participated in a formal mentoring program were compared with protégés mentored by experienced teachers with no formalized mentoring preparation. Forty-six protégé-mentor pairs (23 treatment; 23 comparison) participated in this study conducted in 2 large school consortia in a Midwestern state. Data include ratings and narrative records from classroom observations, weekly summaries of mentoring activities, and ratings of students' classroom behavior. Results indicate that protégés of mentors participating in the mentoring program could more effectively organize and manage instruction at the beginning of the year and establish more workable classroom routines. Also, their students had better behavior and engagement. Findings are discussed in light of the possible relationships between particular mentoring practices and protégés' learning to teach.

Fagan, M. M. and G. Walter (1982). "Mentoring among teachers." Journal of Educational Research **76**(2): 113-118.
A survey was developed enabling subjects to describe their experiences as

mentors and protégés. This questionnaire was administered to 107 public school teachers and to a comparison group of 70 police officers and 87 nurses. The results indicated that most beginning teachers benefit from the guidance of at least one mentor, usually a senior colleague. The frequency of mentoring among teachers was not significantly different from that among police officers and nurses. There was a significant relationship between having a mentor and job satisfaction. Having a mentor was also significantly related to being a mentor.

Fagenson, E. A. (1988). "The power of a mentor – Protégés' and nonprotégés perceptions of their own power in organizations." Group & Organization Studies **13**(2): 182-194.

Do protégés report having more power than non-protégés? Do male protégés report having more power than female protégés? Do high-level protégés report having more influence than low-level protégés? To answer these questions, mentored and non-mentored men and women in high- and low-level positions were asked to evaluate their level of organizational policy influence, access to important people and their level of resources in their organizations. The results of the study revealed that mentored individuals reported having more of each of these three forms of power than non-mentored individuals. Protégés' perceptions of their power were not affected by their gender or level.

Fagenson, E. A. (1989). "The mentor advantage - Perceived career job experiences of protégés versus non-protégés." Journal of Organizational Behavior **10**(4): 309-320.

Do protégés report having more positive job/career experiences than non-protégés? Do male protégés report having more favorable job/career experiences than female protégés? Do high-level protégés report having more favorable work experiences than low-level protégés? To answer these questions, mentored and non-mentored men and women in high- and low-level positions were asked to evaluate, on a survey questionnaire, their level of satisfaction, career mobility/opportunity, recognition, security, and promotion rate. The extent to which these career/job experiences varied as a function of their mentored status, sex and organizational level was examined. The results of the study revealed that mentored individuals reported having more satisfaction, career mobility/opportunity, recognition and a higher promotion rate than non-mentored individuals. However, protégés' perceptions of their job/career situations were not affected by their sex or level. Whether systematic differences exist in the *experience* of being mentored has yet to be examined. © Wiley & Sons.

Fagenson, E. A. (1992). "Mentoring - Who needs it? A comparison of protégés and non-protégés' needs for power, achievement, affiliation, and autonomy." Journal of Vocational Behavior **41**(1): 48-60.

The current study compared the extent to which the needs of protégés differed from non-protégés. The needs for power, achievement, affiliation, and autonomy were examined. Protégés were found to have significantly higher needs for power and achievement than non-protégés. Protégés' gender was also considered but was not found to be a significant factor. © Elsevier.

Fagenson-Eland, E. A. and S. G. Baugh (2001). "Personality predictors of protégé mentoring history." Journal of Applied Social Psychology **31**(12): 2502-2517.

The present study identifies personality characteristics that are predicted to be associated with protégé status in a series of mentoring relationships, an area of research that has not been explored previously. Predictors of mentoring history identified are need for achievement, need for dominance, self-esteem, and tension dissipation. A MANOVA, using number of previous mentors as the independent variable and 4 personality characteristics (need for achievement, need for dominance, self-esteem, and tension dissipation) as outcome variables, showed a significant relationship. Univariate follow-up tests indicated that the number of previous mentoring relationships was significantly associated with need for achievement, need for dominance, and self-esteem, but not tension dissipation. Results are discussed in terms of protégé development, and directions for future research are suggested.

Fagenson-Eland, E. A., M. A. Marks, et al. (1997). "Perceptions of mentoring relationships." Journal of Vocational Behavior **51**(1): 29-42.

The influence of mentor-protégé relationship structure and experience factors on perceptions of mentoring were examined for a sample of mentors and also for a sample of protégés from the same work environment. Experience with mentor-protégé relationships (number of mentors/protégés and relationship length) and the relationship structure (formally arranged vs. informally developed and subordinate vs. non-subordinate protégé) significantly affected reports of the amount of psychosocial support, career guidance, role modeling, and communication that occurred in the mentoring relationships in which the protégés and mentors engaged. © 1997 Academic Press.

Fairbanks, C. M., D. Freedman, et al. (2000). "The role of effective mentors in learning to teach." Journal of Teacher Education **51**(2): 102-112.

Explored the characteristics of successful mentoring. Student teachers and their mentors attended monthly workshops during which they identified effective mentoring characteristics. Data from dialogue journals, interviews, videotapes of conferences, and workshop artifacts highlighted three categories: (1) helping student teachers survive their beginning teaching experiences and define their teaching lives; (2) establishing relationships based on dialogue and reflection; and (3) building professional partnerships. (SM) © ERIC.

Farren, C., J. D. Gray, et al. (1984). "Mentoring - A boon to career development." Personnel **61**(6): 20-24.

Feldman, D. C. (1999). "Toxic mentors or toxic protégés? A critical re-examination of dysfunctional mentoring." Human Resource Management Review **9**(3): 247-278.

Although mentoring can have positive consequences for the careers of protégés, many young adults become enmeshed in dysfunctional relationships with their mentors. To the extent that these destructive mentor-protégé relationships have been examined, the prevailing underlying assumption has been that they are the

mentors' fault because mentors are more powerful and dominant than their protégés. This article presents an alternative to that perspective. It suggests that protégés, as much as mentors, contribute to the interpersonal dynamics that result in dysfunctional outcomes, and that mentors, as well as protégés, are hurt by these destructive relationships. The paper presents a framework for understanding the interpersonal dynamics underlying the development of dysfunctional mentor-protégé relationships, examining three key questions in particular: (1) What causes poor initial linkages between mentors and protégés? (2) What causes poor initial linkages to escalate into destructive mentor-protégé relationships? (3) What are the consequences of dysfunctional relationships for protégés and mentors alike? The article concludes with suggestions for improving the research methodology used to examine dysfunctional mentoring in the future.

Feldman, D. C., W. R. Folks, et al. (1999). "Mentor-protégé diversity and its impact on international internship experiences." Journal of Organizational Behavior **20**(5): 597-611.
This research examines demographic diversity between mentors and protégés on international internships. Using a sample of 138 interns on six-month overseas assignments, the results indicate that interns who are different in nationality and gender from their mentors are much less likely to receive task-related, social-related, and career-related support from them. Moreover, this deficit in mentoring is associated with poorer socialization to internship assignments, lower levels of learning about international business, lower likelihoods of receiving and accepting job offers from internship employers, and lower perceived career instrumentality of the internships. The implications of the results for future research on mentor-protégé diversity and the design of international internships are discussed as well. Copyright (C) 1999 John Wiley & Sons, Ltd.

Ferguson, T. W. (1997). "Who's mentoring whom?" Forbes **159**(10): 252-253.
Reports on efforts to transform management into a science. Research in social network analysis by Karen Stephenson of the University of California at Los Angeles (UCLA) Anderson School of Management; Use of surveys to determine the interactions which take place within an organization; The surveys revealing communication breakdowns within organizations; Comments from Stephenson. © Forbes.

Finkelstein, L. M., T. D. Allen, et al. (2003). "An examination of the role of age in mentoring relationships." Group & Organization Management **28**(2): 249-281.
This study examined the role of both age and age diversity in mentorships using quantitative and qualitative methodology. Based on data from non-faculty employees of a large university, it found that the absolute age of the protégé in mentorships influenced career mentoring provided, characteristics of the mentorship, and perceptions of mutual learning. Older protégés on average experienced less career-related mentoring, had shorter relationships, were closer in level to their mentor, and reported more mutual learning than younger protégés. Protégé age interacted with mentor age, however, such that young protégés

seemed to receive similar styles of mentoring regardless of mentor age, but as protégés age increased, they reported more career and psychosocial mentoring from younger than from older mentors. The content analysis of qualitative data revealed important variables to investigate in future research on age diversity in mentorships, including perceptions of competence and respect, similarity, and interpersonal comfort.

Fitt, L. W. and D. A. Newton (1981). "When the mentor is a man and the protégé a woman." Harvard Business Review **59**(2): 56-60.

The article focuses on mentoring women in management, particularly when the mentor is a man. Problems can arise from tensions and rumors surrounding the man-woman alliance because often there is a perception that sexual misconduct will occur. In the early part of women's managerial careers, they need opportunities to build a credible reputation and information about organizational culture, as well as counseling on how to develop their personal and managerial styles. Male mentors set higher standards for female protégés than for men they are mentoring.

Flach, D. H., M. F. Smith, et al. (1982). "Faculty mentors for medical students." Journal of Medical Education **57**(7): 514-520.

A mentor program at the Rockford School of Medicine was evaluated to assess the quality of student-faculty relationships. Both groups strongly endorsed the program. Students need to put more effort into developing friendships with mentors, and physicians must broaden their focus beyond concern solely for students' academic performance. (Author/MSE) © ERIC

Fletcher, S., M. Strong, et al. (2008). "An Investigation of the Effects of Variations in Mentor-Based Induction on the Performance of Students in California." Teachers' College Record **110**(10): 2271-2289.

Background/Context: Policy makers are concerned about teacher shortages and the high rate of attrition among new teachers. Mentor-based induction has been shown to reduce the numbers of new teachers leaving schools or the profession. However, staying in the profession does not mean that new teachers are effective in helping students learn. Purpose/Objective/Research Question/Focus of Study: The purpose of the project was to study how variations in new teacher support programs are related to changes in student achievement. Research Design: Three districts that had participated in the New Teacher Center training program were asked to be a part of a study about program effectiveness. Using data collected from interviews with district officials, the programs of the districts were categorized based on the mentor/novice ratio. This ratio was selected because it has implications for mentor selection, mentor training, and contact time between mentors and new teachers. Districts also provided achievement data for students taught by new teachers in Grades 2-6. Population/Participants/Subjects: Three school districts in California agreed to participate in the study. The number of participants in the three districts included, respectively, 17 new teachers and 424

students, 31 new teachers and 709 students, and 51 new teachers and 1,288 students. Data Collection and Analysis: Two types of data were used for the study. First, a numerical score was created for each program based on the mentor/novice ratio. Second, achievement scores from two consecutive spring testing periods were obtained from districts for students taught by new teachers in the elementary grades. Districts were treated as separate case studies, with student achievement being in terms of student and class variables. For one district, we also compared class level achievement for teachers with different years of experience. Conclusions/Recommendations: Mentor-based induction may have a positive effect on student achievement if the program allows for weekly contact and mentor selectivity is high.

Flores, L. Y. and E. M. Obasi (2005). "Mentors' influence on Mexican American students' career and educational development." Journal of Multicultural Counseling and Development **33**(3): 146-164.

Effects of mentoring on Mexican American high school students' career aspirations were examined. Results indicated most students had a mentor, and mentors were most helpful through role modeling, verbal encouragement, personal support, and providing career guidance. Gender differences were found on several outcome variables but were not detected based on sex or ethnic match, or the presence of a mentor.

Forehand, R. L. (2008). "The Art and Science of Mentoring in Psychology: A Necessary Practice to Ensure Our Future." American Psychologist **63**(8): 744-755.

Skillful faculty mentoring of graduate students is essential for producing the next generation of scholars. Unfortunately, the mentoring process is underappreciated and understudied. This article initially presents an overview of the extant literature. Subsequently, it borrows models from a related but more advanced field of study to stimulate the development of conceptual frameworks for guiding research on mentoring. Until the field progresses from its current state (i.e., an art) to a science, there will be few empirically informed answers regarding how to mentor effectively. Nevertheless, some suggestions are warranted and are offered in order to encourage effective mentoring.

Fowler, J. L. and J. G. O'Gorman (2005). "Mentoring functions: A contemporary view of the perceptions of mentees and mentors." British Journal of Management **16**(1): 51-57.

The purpose of this study was to develop an instrument for assessing mentoring based in contemporary organizational life. In the first phase of the study, 24 mentees and 24 mentors were interviewed about their mentoring experience. In-depth analyses of the interview data resulted in the development of an instrument to measure mentoring functions. In the second phase of the study, the instrument was tested for its factor structure using a large sample of 272 mentees and 228 mentors. A two-phase statistical analysis, principal components analysis with one sample followed by confirmatory factor analysis with the other, revealed eight distinct functions of mentoring. Mentees and mentors were found to share similar perceptions about the mentoring functions that occur in their relationships. The

results represent a thorough attempt to define and describe mentoring in a contemporary organizational environment.

Franke, A. and L. O. Dahlgren (1996). "Conceptions of mentoring: An empirical study of conceptions of mentoring during the school-based teacher education." Teaching and Teacher Education **12**(6): 627-641.

This article discusses the mentoring given by the mentor (cooperating teacher) during the practical part of teacher training. This mentoring is empirically described by studying and describing how it is conceived of by a group of mentors and student teachers. The differences in conceptions found concerning the functions are discussed in terms of a reflecting and a taken-for-granted perspective of professional knowledge of teachers. As regards conceptions of the content, it is discussed whether student teachers' practice teaching is an object of reflection or an occasion for practice. Conceptions and patterns of behavior as regards the form of mentoring are discussed in terms of a principle-oriented strategy and an episode-oriented strategy. The variation described in this way in terms of the disparate perspectives could reflect different types of theoretical awareness of the phenomenon of mentoring that exist among mentors and student teachers. © 1996 Elsevier Science Ltd.

Fransson, G. (2010). "Mentors assessing mentees? An overview and analyses of the mentorship role concerning newly qualified teachers." European Journal of Teacher Education **33**(4): 375-390.

Sweden has no tradition of mentors participating in the formal summative assessment of newly qualified teachers. However, an Inquiry Committee Report proposed that mentors should have some involvement in this process. This article reports on the results of an examination of 108 official responses to the Inquiry Report submitted to the Ministry of Education and provides a research overview. The results show that only 23 of the 108 responses mention assessment, and none of these are positive to the proposed expansion of the mentor's duties. Only four responses include an explicit discussion of the relationship between mentors and mentees. These results are discussed in the light of research into relations between mentors and mentees and whether or not mentors should participate in the assessment of their mentees. One conclusion is that answers to this question need to relate to the prerequisites, values and objectives of the educational context.

Frey, B. R. and R. B. Noller (1983). "Mentoring - A legacy of success." Journal of Creative Behavior **17**(1): 60-64.

From the ancient Greeks, we received the concept of mentor; from Europe, we have the patron; from India, we have the guru; and from Japan, we have the sensei. In every age and in every culture, the relationship described by these terms has accompanied creative success. Contemporary American business, industry and education have embraced the term MENTOR and are popularizing it. There is little doubt that a good mentor relationship facilitates creative achievement among mentees and provides mentors a way of keeping abreast of change. In this article, Barbara Frey and Ruth Noller analyze the state of knowledge about this

phenomenon and guide readers into the emerging literature regarding this relationship. (E. Paul Torrance)

Frey, B. R. and R. B. Noller (1986). "Mentoring - A promise for the future." Journal of Creative Behavior **20**(1): 49-51.

Reviews the literature on the practice of mentoring, which shows that many businesses and industries depend on mentoring to improve management, promote leadership, sustain quality, inspire interest among personnel, and to assure a future. It is suggested that while the resurgence of interest in the concept of mentoring a decade ago may have been inspired by the needs of women aspiring to corporate leadership, other minority groups are now interested. These include ethnic populations (Hispanic, Mexican), social service groups (single mothers, abusing parents), and clinical situations (ill, depressed, handicapped) who may profit from mentoring. (PsycINFO Database Record © 2012 APA, all rights reserved)

Frierson, H. T., B. K. Hargrove, et al. (1994). "Black summer research students perceptions related to research mentors' race and gender." Journal of College Student Development **35**(6): 475-480.

Interview results obtained from African American summer research program students indicated that at the completion of the program, those with Black or female mentors had more positive perceptions and attitudes toward research and the research environment than those with White male mentors.

Furlong, J. (2000). "School mentors and university tutors: Lessons from the English experiment." Theory into Practice **39**(1): 12-19.

The English school system has faced serious upheaval since 1970, culminating in a recent political push to prevent teachers from spending as much time in the academic system and farming out their education to the schools they are assigned to work. The author explores several dimensions of the current school system: the learning process involved in educating teachers at their schools, the role of mentors in supporting the learning process and the role of the academic in supporting that learning process. He concludes that the system has been popular among the broader audience, but makes academics uncomfortable due to the inability to control for quality.

Galagan, P. A. (1999). "Radical mentor." Training & Development **53**(5): 46-47.

Reports on the employee training techniques for the hotel industry developed by Cindy Novotny, managing partner at Master Connection Associates including the history of her career, the establishment of her own business and issues relating to her work-related travel.

Garner, C. M., A. Byars, et al. (2003). "16PF in screening for appropriateness of mentors." Psychological Reports **92**(1): 35-42.

The utility of the Sixteen Personality Factor Questionnaire, Fifth Edition (16PF) as an indicator of mentor effectiveness was examined. A random sample of the

16PF scores of 74 mentors was drawn from a population of 837 mentors from Big Brothers Big Sisters. Caseworkers rated mentor's effectiveness using a rubric developed for this purpose. The rubric showed good inter-rater agreement. Caseworkers' ratings of mentor's effectiveness was used to rate mentors systematically as appropriate or inappropriate. The 16PF scores of mentors were compared at an alpha level of .05 for appropriate and inappropriate groups using independent t tests and multivariate analyses of variance, which reflected significant differences between male and female mentors on Factors E and Q3. Significant differences were also found between "appropriate" and "inappropriate" mentors on Factors L and Q4. These differences reflected only moderate effect sizes and lacked practical significance or meaning. The results suggest that, while the 16PF discriminates statistically between "appropriate" and "inappropriate" mentors, in terms of practical significance, the questionnaire is not particularly useful as an initial screening tool.

Gaskill, L. R. (1991). "Same-sex and cross-sex mentoring of female protégés - A comparative analysis." Career Development Quarterly **40**(1): 48-63.

Describes a study of mentoring relationships for female retail protégés in cross-sex mentoring relationships and female retail protégées in same-sex mentoring. The author examines mentor age, relationship initiation and career levels.

Gaskill, L. R. (1993). "A conceptual framework for the development, implementation, and evaluation of formal mentoring programs." Journal of Career Development **20**(2): 147-160.

Proposes a conceptual framework for mentoring program (MP) development, implementation, and evaluation based on the collective profiles and operational activities of successful, existing formal MPs in retailing. 51 executive development directors were surveyed and interviewed regarding career history and the status of formal mentoring in their organizations. Nine Ss indicated that formal MPs were in existence in their companies, and 8 Ss anticipated MP emergence in the near future. 34 Ss did not anticipate MP development. The conceptual framework based on these and other data consisted of program development (i.e., protégé selection, mentor selection, training, and mentor/protégé linkage), program implementation (i.e., career and psychosocial functions, and benefits to the mentor, protégé, and organization), and program evaluation (i.e., evaluation, assessment of outcomes, and modification through feedback). (PsycINFO Database Record © 2012 APA, all rights reserved)

Gaskins, R. W. (1992). "When good instruction is not enough - A mentor program." Reading Teacher **45**(8): 568-572.

Gaskins asserts that, when students know that someone they trust is behind them, they gain the confidence they need to become strategic learners. Describes the mentor program for bright underachievers at Benchmark School in Media, Pennsylvania. (PRA)

Gehrke, N. J. (1988). "On preserving the essence of mentoring as one form of teacher

leadership." Journal of Teacher Education **39**(1): 43-45.
The mentor-protégé role relationship is a powerful one that offers unique opportunities for personal development. Gehrke uses Martin Buber's notions of I-Thou and I-It to describe how mentors and protégés might relate to each other in more profound and less nominal ways.

Gehrke, N. J. and R. S. Kay (1984). "The socialization of beginning teachers through mentor-protégé relationships." Journal of Teacher Education **35**(3): 21-24.

Geiger, A. H. (1992). "Measures for mentors." Training & Development **46**(2): 65-67.
A mentoring evaluation method that is both a learning tool and a measurement tool involves (1) assessing performance in the roles of communicator, counselor, coach, advisor, broker, referral agent, and advocate; and (2) evaluating on a continuum the impact of mentoring discussions. (JOW)

Geiger-Dumond, A. H. and S. K. Boyle (1995). "Mentoring - A practitioner's guide." Training & Development **49**(3): 51-54.
The author discusses the structured mentoring program of Douglas Aircraft Company. He discusses the following in the process of describing the program and its effects: important elements for the establishment of the program as an integral part of the corporate culture, the mentoring process as part of the company's management development strategies and an outline of the mentoring process.

Gentry, W. A., T. J. Weber, et al. (2008). "Examining career-related mentoring and managerial performance across cultures: A multilevel analysis." Journal of Vocational Behavior **72**(2): 241-253.
The benefits of the mentoring relationship for protégés have been a primary focus in the mentoring literature. Researchers have recently begun to examine how mentoring can benefit the mentor. The purpose of the present study is to examine whether direct report-ratings of a manager's career-related mentoring behaviors are related to boss-ratings of that manager's performance. In addition, this study assesses whether the cultural background of the manager moderates the career-related mentoring-performance relationship via multilevel methodology. Results reveal that managers who are rated by their direct reports as engaging in career-related mentoring behaviors are perceived as better performers by their bosses. Moreover, the GLOBE societal culture dimension of Performance Orientation was a significant cross-level moderator of the career-related mentoring-performance relationship. Implications for the practice of mentoring in cross-cultural contexts across multiple disciplines are discussed. © 2007 Elsevier Inc. All rights reserved.

Gerstein, M. (1985). "Mentoring - An age old practice in a knowledge-based society." Journal of Counseling and Development **64**(2): 156-157.
The article focuses on mentoring, an age old practice in a knowledge-based society. Mentoring is not new. It may date back to the Neolithic Age or earlier.

Wise elders, perhaps crippled and no longer active, can be imagined sitting about the fire and instructing protégés on how to drive the mastodon into a pit and kill it with stones and spears. What is new, however, is that this common human practice is being recognized and accepted by major business corporations, colleges, universities and schools and various agencies foundations and associations as a formal component of overall career and human resource development. Researchers found mentoring to be a behavioral phenomenon not dependent on personal traits. They concluded that mentoring relationships can be established or enriched by learning or encouraging mentor like behavior rather than by selecting certain types of people to serve as mentors. It is valuable for counselors, particularly career counselors, to know that mentoring can be beneficial in nontraditional ways and to be able to discuss with clients the various ways in which the distinct stages of a career can be achieved.

Ghislieri, C., P. Gatti, et al. (2009). "Factors affecting willingness to mentor." International Journal for Educational and Vocational Guidance **9**(3): 205-219.

The paper presents a survey among 300 employees in Northern Italy to assess the willingness to mentor and identify the factors that affect it. Men and respondents with previous mentoring experience indicate a higher willingness to be a mentor. Willingness is affected by personal characteristics that are perceived as necessary for a mentor and the perceived benefits and drawbacks of mentoring.

Ghosh, R., T. G. Reio, et al. (2012). "Mentoring and organizational citizenship behavior: Estimating the mediating effects of organization-based self-esteem and affective commitment." Human Resource Development Quarterly **23**(1): 41-63.

This study explored how perceptions of reciprocal support in mentoring influence mentors' and protégés' intent to extend work-related help to coworkers in organizations. Our findings shed light on the role that organization-based self-esteem (OBSE) and affective organizational commitment (AOC) play as mediators in transmitting the effect of perceived reciprocal support in mentoring to mentors' and protégés' intent to engage in organizational citizenship behavior (OCB). A central premise of this study was that positive feelings of reciprocal learning and growth for mentors and protégés produce interdependence and inclinations towards organizational citizenship. Mentors (n 5 82) and protégés (n 5160) from three U.S.-based corporations were surveyed. Results of mediation analyses employing multiple mediation model testing shows statistical and practical significance for protégés' AOC and OBSE as mediators. The lack of support for any mediators for the mentors indicates that the process underlying the link between mentoring and OCB may differ for mentors and protégés. We discuss the implications of these findings for organizational mentoring and human resource development and offer suggestions for future research.

Gibb, S. (1994). "Inside corporate mentoring schemes – The development of a conceptual framework." Personnel Review **23**(3): 47-60.

Identifies the need to develop a conceptual framework to explain the diversity of

organized mentoring in formal schemes as an important practical and theoretical concern. Interviews with participants in formal mentoring schemes were undertaken to obtain accounts of their experiences within formal mentoring schemes. From an analysis of these interviews a conceptual framework for explaining the diversity of organized mentoring in formal schemes was developed. This framework involves three levels: the identification of a mentoring continuum, the adoption of an explicit human resource development (HRD) perspective to define relevant mentoring issues, and a classification of potential analytical approaches to mentoring. This conceptual framework enables diversity in organized mentoring to be defined and considered from both a practical and a theoretical perspective. In conclusion, identifies issues about the further development and evaluation of organized mentoring in formal schemes, given the picture this conceptual framework provides.

Gibb, S. (2003). "What do we talk about when we talk about mentoring? Blooms and thorns." British Journal of Guidance & Counselling **31**(1): 39-49.

The dialogue in the field of mentoring has changed over time. In the early days mentoring was a straightforward and pragmatic means to an end: developing others. The blooms of mentoring flowered everywhere. Then thorny issues started to be encountered, both in theory and in practice. Case studies are used here to illustrate the mixed fortunes experienced in contemporary times in three different organizations. A balance between mentoring blooms and mentoring thorns is evident in each case. Three major themes are then identified from these case studies that raise questions for the mentoring discourse. These are: different views of systems thinking, different value bases for evaluating mentoring, and different ideas about the kind of relationship mentoring ought to be. In conclusion, there is a need for a balance: between on the one hand understanding these different positions to promote dialogue and on the other hand developing rivalries to animate dialogue in the first place.

Gibson, S. K. (2004). "Being mentored: The experience of women faculty." Journal of Career Development **30**(3): 173-188.

Mentoring has been proposed as a means to enhance the career success of women faculty in the academic environment. This phenomenological study was undertaken to understand and describe the essential nature and meaning of the experience of being mentored for women faculty. In-depth conversational interviews were conducted with nine women faculty who stated that they had been mentored while in a faculty role. Their mentoring relationships were formal and informal, with male and female mentors of varying ranks, and both internal and external to the protégés' institutions. Through an analysis of the interview text, five essential themes of the experience of being mentored for women faculty emerged. These essential themes are (a) having someone who truly cares and acts in one's best interest, (b) a feeling of connection, (c) being affirmed of one's worth, (d) not being alone, and (e) politics are part of one's experience.

Giebelhaus, C. R. and C. L. Bowman (2002). "Teaching mentors: Is it worth the effort?"

Journal of Educational Research **95**(4): 246-254.

Two groups of undergraduate students participating in a field experience as part of the undergraduate teacher preparation program were compared on the basis of the supervisory, practice of the cooperating/mentor teacher. Both groups received a traditional orientation to student teaching and supervision. In addition, the experimental group had teachers that received an in-depth training in supervision using a specific framework, Praxis III/Pathwise (Educational Testing Service, 1995). Results demonstrated statistically significant differences in favor of the experimental group on 11 of the 19 variables investigated.

Godshalk, V. M. and J. J. Sosik (2003). "Aiming for career success: The role of learning goal orientation in mentoring relationships." Journal of Vocational Behavior **63**(3): 417-437.

Learning goal orientation of mentors and protégés was investigated as it relates to protégés' mentoring functions received and outcomes (i.e., managerial career aspirations and career satisfaction). Data from 217 mentor-protégé dyads comprised of working professionals from a variety of industries were analyzed using multivariate analysis of covariance. Results indicated that protégés who possessed high levels of learning goal orientation similar to their mentor were associated with the highest levels of psychosocial support. These protégés also reported higher levels of career development, idealized influence, enacted managerial aspirations, desired managerial aspirations, and career satisfaction when compared to mentor-protégé dyads who possessed low levels of learning goal orientation or dyads with dissimilar levels of learning goal orientation. Implications for practice and future research are discussed. © 2002 Elsevier Science (USA). All rights reserved.

Gold, J., D. Devins, et al. (2003). "What is the value of mentoring in a small business? Using narrative evaluation to find out." British Journal of Guidance & Counselling **31**(1): 51-62.

The paper examines the case of one small business manager (Alistair) and the value he gave to a mentoring intervention demonstrated by the use of narrative evaluation. Doubts about the efficacy of orthodox approaches to evaluation when applied to management development activities lead to the view that narratives are more appropriate. Narrative evaluation techniques are applied to a story told by Alistair, the Managing Director of a small business in Sheffield, concerning his view of his involvement in a mentoring program. Alistair's initial reservations about the value of the program are revealed rhetorically through a range of arguments. After such doubts, through a process of conversation, the story reveals how Alistair is able to find value from mentoring.

Good, J. M., G. Halpin, et al. (2000). "A promising prospect for minority retention: Students becoming peer mentors." Journal of Negro Education **69**(4): 375-383.

The study examined academic and interpersonal growth of peer mentors (N = 19) by analyzing comments in journals written during the mentors' first quarter of tutoring and mentoring within a minority engineering program at a large land-

grant university in the Southeast. Although the intent of the program was to improve retention rates for the participants, the mentors experienced both academic and interpersonal growth. In addition, preliminary data regarding grades and retention status also indicate that the mentors benefited academically from the mentoring experience. The findings of the study suggest that, although the upper-class peer mentors are not the target population of the minority engineering program, they were positively impacted from their roles as mentors within the minority engineering program.

Goodwin, L. D., E. A. Stevens, et al. (1998). "Mentoring among faculty in schools, colleges, and departments of education." Journal of Teacher Education **49**(5): 334-343.

Surveys of faculty members in 13 Colorado schools, colleges, and departments of education investigated their attitudes, perceptions, and experiences regarding faculty-to-faculty mentoring. Results indicated no significant differences in attitudes or mentoring behaviors by gender or faculty rank and few differences by type of institution. Respondents positively valued mentoring. Mentoring tended to fit traditional college/university roles. (SM)

Graham, P. (1997). "Tensions in the mentor teacher-student teacher relationship: Creating productive sites for learning within a high school English teacher education program." Teaching and Teacher Education **13**(5): 513-527.

This payer identifies two of the most divisive patterns of tension within the mentor teacher-student teacher relationship philosophical differences and tolerance for uncertainty-within an experimental high school English teacher education program based on collaborative inquiry and teacher research. Five differences in principles and processes in the experimental program emerged which support more effective ways of dealing with mentor teacher-student teacher tensions: (1) mentor teacher ownership of the program, (2) year-long student teacher experiences, (3) same university teacher educators across the year, (4) content area research, and (5) respect for school context. Using a case study approach, the author discusses how viewing these tensions as sites of inquiry have helped to shape the teacher education program and exploited tensions as productive learning opportunities rather than merely failures or insults. © 1997 Elsevier Science Ltd.

Grant-Vallone, E. J. and E. A. Ensher (2000). "Effects of peer mentoring on types of mentor support, program satisfaction and graduate student stress: A dyadic perspective." Journal of College Student Development **41**(6): 637-642.

Examines the effects of a graduate student peer-mentoring program from the perspectives of both members of the mentoring dyad, the mentors and protégés. Results indicate that peer mentoring provides students with both increased levels of psychosocial and instrumental support, and that those with high levels of support are more satisfied with their peer mentoring relationships. (Contains 12 references and 2 tables.) (GCP)

Gratch, A. (1998). "Beginning teacher and mentor relationships." Journal of Teacher

Education **49**(3): 220-227.

Discusses the socialization of beginning teachers, examining the relationship between beginning teachers and mentors; presenting a case study of one teacher who had an unsatisfactory mentoring relationship with her mentor during her first year of teaching; discussing expectations for the mentor-protégé relationship of teacher educators and their students; and noting implications for practice. (SM)

Graves, S. (2010). "Mentoring pre-service teachers: A case study." Australasian Journal of Early Childhood **35**(4): 14-20.

This paper explores the mentoring relationships between pre-service teachers and cooperating teachers participating in an early childhood practicum. A collective case study methodology was utilized to gain insight into the dynamics of the relationships. Data sources included open-ended interviews, observations, reflective journals and dialogue journals. Results reveal that clear, explicit expectations, ongoing communication, and adequate time are vital to the development of positive relationships. Implications for practice are discussed.

Gray, W. A. (1982). " Mentor-assisted enrichment projects for the gifted and talented." Educational Leadership **40**(2): 16-21.

Guidelines are given for an enrichment program that uses pre-service teachers as mentors to provide experiences for gifted and talented pupils in grades five through seven. Ratings of the program by 31 students are also included. (MLF)

Gray, W. A. and M. M. Gray (1985). "Synthesis of research on mentoring beginning teachers." Educational Leadership **43**(3): 37-43.

Reviews research on "mentors"--experienced teachers assigned to assist those less experienced. Covers mentor characteristics, behaviors, and roles; appropriate matching of mentors and protégés; the needs of beginning teachers; and the changes in the mentor-protégé relationship that occur as protégés gain experience and need mentors less. (PGD)

Green, A. G. and G. C. Hawley (2009). "Early Career Psychologists: Understanding, Engaging, and Mentoring Tomorrow's Leaders." Professional Psychology-Research and Practice **40**(2): 206-212.

This article on mentoring describes demographic characteristics and challenges faced by early career psychologists (ECPs) and how mentoring can significantly shape the development of ECPs' professional and personal identity. ECPs have a significant impact on how psychology will evolve and be recognized in the marketplace. Mentors have the opportunity to significantly shape the development of this early career professional and thus assure the dynamic future of psychology. The characteristics of a mentor, the mentoring process of an ECP, diversity issues, and strategies for effective mentoring are discussed.

Green, S. G. and T. N. Bauer (1995). "Supervisory mentoring by advisers – Relationships with doctoral student potential, productivity and commitment." Personnel Psychology **48**(3): 537-561.

A 2-year, three-panel (T1-T3) longitudinal study of 233 entering Ph.D. students examined the relationships between student potential for mentoring, (i.e., attitudes and objective abilities at entry (T1), mentoring functions used by the faculty adviser (T2, T3), and student research productivity and commitment (T3). Student potential was found to predict the amount of psychosocial mentoring, career mentoring, and research collaboration provided by the adviser. Psychosocial mentoring and collaboration were not related to student productivity or commitment after controlling for the students' entering abilities and attitudes. Career mentoring at T2 was negatively related to the students' affective commitment to their program at T3. Implications for our understanding of mentoring and future research are discussed.

Griffin, K. A. and R. J. Reddick (2011). "Surveillance and Sacrifice: Gender Differences in the Mentoring Patterns of Black Professors at Predominantly White Research Universities." American Educational Research Journal **48**(5): 1032-1057.

Previous research documents Black professors' heavy service commitments and time spent mentoring; yet little work explores how this form of faculty work differs by gender. This intersectional analysis examines narratives of 37 Black professors at three institutions (collected across two studies), focusing on how race and gender shape Black professors' expectations and experiences mentoring. Findings indicate that racism and sexism influence whether and how Black faculty members mentor in unique ways. Women engage in close, personal relationships and face high gender-based expectations regarding student contact, leading to their carriage of a heavy mentoring burden. Men are more formal and compartmentalize their relationships, partly due to perceived visibility and surveillance, as well as increased likelihood of accusations of inappropriate relationships with female students.

Gruber, H. E. (1990). "Formative encounters in early adulthood – Mentoring relationships in a writer's autobiographical reconstruction of his past self." Human Development **33**(4-5): 304-306.

Comments on A. Handel's case study of the mentors of Elias Canetti with the recommendation that the discussion of mentoring relationships occur in the wider context of the study of creative people at work. Consideration of historical circumstances is also recommended. (PsycINFO Database Record © 2012 APA, all rights reserved)

Gumbiner, J. (1998). "Professors as models and mentors: Does gender matter?" Psychological Reports **82**(1): 94-94.

150 college students perceived male professors as more authoritative and female professors as more emotional but still preferred mentors of their own gender.

Gustafson, B., S. Guilbert, et al. (2002). "Beginning elementary science teachers: Developing professional knowledge during a limited mentoring experience." Research in Science Education **32**(3): 281-302.

The professional development project reported on in this paper, the Beginning

Elementary Science Teachers' (BEST) project, was based on the premise that the first years of elementary science teaching can be very important in the development of long-term quality science teaching. Specifically, we report on project experiences that allowed 13 beginning teachers to interact with experienced teachers in a university seminar and during school visits. Results show that these limited mentoring experiences can support the development of professional knowledge and discussion centers on factors that facilitate knowledge growth. Conclusions are presented that compare benefits of these limited mentoring experiences to those reported to be achieved in long-term mentoring programs.

Haggard, D. L. (2012). "Mentoring and Psychological Contract Breach." Journal of Business and Psychology **27**(2): 161-175.

Mentoring and psychological contracts are related and important organizationally based social exchange relationships. Research indicates that social support from internal mentors might buffer the negative effects of psychological contract breach (PCB), but less is known about the possible negative influence that mentors might have on psychological contracts. This study investigates protégés' perceptions of their mentors' failure to fulfill mentoring obligations and protégés' perceptions of PCB. Because either the formality of the mentoring relationship or the supervisory status of the mentor might serve as additional signals of the mentor's status as an organizational agent, and, therefore, exacerbate the negative association between mentoring breach and PCB, both are investigated as potential moderating variables. A sample of 144 protégés from various occupations completed a questionnaire assessing mentoring breach, PCB, job satisfaction and organizational commitment. Results indicate the relations between mentoring breach and the outcome variables of interest were mediated by PCB, and that the relation between mentoring breach and PCB is stronger in supervisory mentoring relationships. A similar result was expected, but not confirmed, for formal mentoring relationships. The current study provides evidence that the actions (or inactions) of mentors contribute to PCB and related negative outcomes. Such knowledge might encourage organizations to provide training to potential mentors in managing the mentoring relationship to minimize the probability of mentoring breach. The current study is the first to examine the potential negative effect that mentoring relationships might have on protégé psychological contracts.

Hall, L. A. and L. D. Burns (2009). "Identity Development and Mentoring in Doctoral Education." Harvard Educational Review **79**(1): 49-70.

In this essay, Leigh Hall and Leslie Burns use theories of identity to understand mentoring relationships between faculty members and doctoral students who are being prepared as educational researchers. They suggest that becoming a professional researcher requires students to negotiate new identities and conceptualize themselves both as people and professionals in addition to learning specific skills; however, the success or marginalization that students experience may depend on the extent to which they attempt to enact identities that are valued by their mentors. For this reason, Hall and Burns argue that faculty mentors must

learn about and consider identity formation in order to successfully socialize more diverse groups of researchers, and they believe that formal curriculum designs can be used more intentionally to help students and faculty understand the roles identity plays in professional development and to make doctoral education more equitable.

Hall, M. and D. Smith (2009). "Mentoring and turnover intentions in public accounting firms: A research note." Accounting Organizations and Society **34**(6-7): 695-704.

Turnover in public accounting firms is a critically important issue as firms seek to retain quality accounting personnel in the face of skilled labor shortages. Mentoring is one initiative that has been suggested as a means of reducing the high costs associated with employee turnover. However, prior accounting research examining the association between mentoring and turnover intentions has produced mixed results, which may be due, at least in part, to difficulties in operationalizing the mentoring construct. Drawing on recent management literature regarding organizational turnover intentions, we challenge the conventional view that mentoring generally leads to reduced turnover intentions, by testing a theoretical model that posits that different functions of mentoring have differing effects on turnover intentions. Specifically, we argue that while the psychosocial support function of mentoring can serve to reduce public accountants' turnover intentions, the career development function of mentoring has the potential to increase turnover intentions. Results support this conclusion. © 2008 Elsevier Ltd. All rights reserved.

Hall, P. (2008). "Building bridges: Strengthening the principal induction process through intentional mentoring." Phi Delta Kappan **89**(6): 449-452.

The impending flood of new school administrators demands an increase in high-quality principal mentorship programs. As districts implement such programs, they must be sure to include certain characteristics; formal, intentional, goal-oriented, relationship-focused programs are more likely to yield positive results in professional growth and to produce successful principals. The author discusses the components of effective mentorships, outlines essential mentor behaviors, and provides examples of successful programs.

Hamel, F. L. and H. A. Jaasko-Fisher (2011). "Hidden labor in the mentoring of pre-service teachers: Notes from a mentor teacher advisory council." Teaching and Teacher Education **27**(2): 434-442.

This article argues that mentoring reflects a form of hidden labor within pre-service teacher education. Using Marx's concern for the ways in which aspects of an economic system are rendered invisible, the article draws on discussions from an American mentor teacher advisory council to illuminate otherwise marginalized aspects of mentors' work. Meeting data reveal challenging dynamics of initiative, complications in determining teaching opportunities, and unique positions taken up by mentors during transitions in authority. The authors argue for the creation of "intersection contexts" where the voices of various constituencies in the mentoring of pre-service teachers can be heard. (C) 2010

Elsevier Ltd. All rights reserved.

Hamilton, B. A. and T. A. Scandura (2003). "E-mentoring: Implications for organizational learning and development in a wired world." Organizational Dynamics **31**(4): 388-402.

The practice of mentoring suffers many institutional and practical barriers, including fear of sexual attraction, differences in ethnicity or the need for more flexible working schedules. The authors advocate for mentoring via email in order to help overcome some of those barriers and allow mentors and mentees to have a more efficient connection with one another.

Hamilton, S. F. and M. A. Hamilton (1992). "Mentoring programs – Promise and paradox." Phi Delta Kappan **73**(7): 546-550.

Evaluates Cornell University's Linking Up mentoring program for needy youngsters. Although the program achieved limited success, some valuable lessons emerged, including the necessity of finding a sufficient supply of suitable mentors, concentrating on youths in need, setting clear mentoring goals, focusing on competence-building activities, providing continuous mentor support, addressing time limitations, and providing an appropriate context. (MLH)

Hanson, S. and E. Moir (2008). "Beyond mentoring: Influencing the professional practice and careers of experienced teachers." Phi Delta Kappan **89**(6): 453-458.

This article examines how mentoring contributes to the professional development of mid-career teachers and how they apply the skills and knowledge they gained as mentors after they finished a three-year, full-release mentorship. A survey and interviews with mentors suggest that teachers who serve as mentors in an induction program are likely to return to school positions as leaders interested in working in a professional learning environment.

Hanson, S. G. (2010). "What Mentors Learn About Teaching." Educational Leadership **67**(8): 76-80.

The article discusses how new teacher mentoring programs influence mentors in their teaching careers. The New Teacher Center's training and support program, in which teachers who participated as mentors were released from the classroom to mentor new teachers full-time, is explored. How mentorship helped the teacher mentors gain a broader perspective of themselves, teacher development in general, the schools in which they served, a deeper understanding of professional development, and confidence in themselves as educational leaders are discussed.

Hargreaves, A. and M. Fullan (2000). "Mentoring in the new millennium." Theory into Practice **39**(1): 50-56.

Investigates mentoring in the new millennium, linking approaches to mentoring with an evolutionary model of professionalism in teachers (the four ages of professionalism); examining key areas of change that should lead to a new way of looking at mentoring; and drawing conclusions for redesigning teacher preparation, developing continuous learning throughout the career, and changing

the teaching profession more fundamentally. (SM)

Haringhidore, M. (1987). "Mentoring as a career enhancement strategy for women." Journal of Counseling and Development **66**(3): 147-148.

The article focuses on mentoring as a career enhancement strategy for women. Grooming-mentoring is the special assistance provided by an older and more experienced professional who grooms his or her protégé during a transitional period. This assistance can enhance fast movement up the career ladder for a protégé. Grooming-mentoring has several distinctive characteristics. First, it has a developmental pattern like initiation, cultivation, separation and redefinition. Second, grooming-mentoring relationships tend to be homogenous. Third, it is based on favoritism. Finally, it is characterized by intense relationships. These characteristics can cause problems, especially for protégés and women. However networking-mentoring, in contrast to grooming-mentoring, entails more flexible and mutually interdependent patterns of training, information sharing, and support. Networking-mentoring is characterized by a series of contacts between two or more people in which each plays the role of mentor and protégé at different times and to different degrees. Its most important advantage is that it is available to all women, not just the chosen few who can find someone to groom them. Counselors find that most professional women are receptive to or even enthusiastic about exploring mentoring as away to boost their careers.

Haringhidore, M. and M. A. Paludi (1987). "Sexuality and sex in mentoring and tutoring – Implications for women's opportunities and achievement." Peabody Journal of Education **64**(4): 164-172.

The authors describe primarily negative implications that sexuality and sex have on women's opportunities and achievement in grooming mentoring, network mentoring and tutoring relationships. They conclude that grooming mentoring, which usually involves male mentors and female protégés, has the greatest potential to be exploitative and result in inequitable outcomes when sexuality and sex are introduced into these relationships. This conceptual article suggests a research agenda focused on the incidence of sex and sexuality in mentoring and tutoring, and effects on development of those relationships, as well as on women's opportunities and achievement.

Harnish, D. and L. A. Wild (1994). "Mentoring strategies for faculty development." Studies in Higher Education **19**(2): 191-201.

Peer mentoring, as an intentional instructional improvement strategy, and the concept of mutual mentoring are the focus of this article. These themes are explored through the presentation of four peer mentoring projects developed under a federal Title III grant for professional development and instructional improvement. Mentor faculty were teamed with faculty mentorees desiring assistance in developing or using new, alternative teaching materials/methods or gaining new knowledge. Cross-disciplinary mentoring and the impact of mentoring on teaching and professional growth of both new and experienced faculty are present.

Harrison, J., S. Dymoke, et al. (2006). "Mentoring beginning teachers in secondary schools: An analysis of practice." Teaching and Teacher Education **22**(8): 1055-1067.

The conditions that promote best practice in the mentoring of beginning teachers in secondary schools are explored in this paper in relation to the experiential model of learning put forward by Kolb [(1984). Experiential learning: Experience as the source of learning and development. New York: Prentice-Hall]. The underpinning processes of this learning cycle include the experience, the reflection, the learning that results and (further) experimentation. We present some empirical research from a two-year funded project on the professional development of subject induction tutors and data derived from questionnaires completed by beginning teachers in three education authorities at the start and end of induction year and from semi-structured interviews with sub-samples of beginning teachers. The questionnaire data allowed us to distinguish three broad teacher 'types' in terms of their experiences of induction and the associated mentoring. In relation to these types we explored differences and similarities in the extent to which mentoring functions are distributed in schools, the extent to which different mentoring relationships allow beginning teachers to be empowered in their work, and the particular uses made of review and target setting and the value placed on these processes by beginning teachers and their mentors. Overall we found that best practice for 'developmental mentoring' involves elements of challenge and risk-taking within supportive school environments with clear induction systems in place and strong school ethos in relation to professional development. (c) 2006 Elsevier Ltd. All rights reserved.

Hartley, J. E. and M. D. Robinson (1996). "Scholars and mentors: Research in psychology and the production of PhDs." Psychological Reports **79**(3): 846-846.

For the 161 national liberal arts colleges, there is a positive correlation between number of research publications in psychology and number of students going on to earn PhDs in psychology.

Harvey, M., N. McIntyre, et al. (2009). "Mentoring global female managers in the global marketplace: traditional, reverse, and reciprocal mentoring." International Journal of Human Resource Management **20**(6): 1344-1361.

A stream of research exists that focuses on traditional mentoring (senior female managers mentoring junior members in a domestic organization). The literature further indicates that females are increasing in number but may receive less mentoring than males and expatriates may receive less mentoring than domestic employees. A new paradigm, reverse mentoring, has emerged (e.g., a junior person, knowledgeable of the rapid technological change and globalization of business, acts as the mentor for a senior person). This paper proposes a third type of mentoring, 'reciprocal', as essential for competition in global markets. It is argued that mentoring can become a strategic tool in the organizational knowledge creation and transfer process. Moreover, mentoring could serve as a competitive advantage in creating an effective support system for female global female managers.

Hawkey, K. (1998). "Mentor pedagogy and student teacher professional development: A study of two mentoring relationships." Teaching and Teacher Education **14**(6): 657-670.

The recent and growing literature on mentoring has seen a lot of studies focusing on how mentors think about and conceptualize their work. Less literature has examined what mentors actually do in practice or which attempts to relate mentors' 'espoused' theories to their 'theories in action'. This study elicits two mentors' conceptions of their role, along with their views about what has influenced these conceptions, before examining the pedagogical practice of the two mentors. Secondly, the study looks at how three student teachers respond to their experiences of mentoring with these same two mentors, and attempts to understand the various ways in which the student teachers' thinking about their teaching is influenced by discussions with their mentor. The article concludes with a discussion of the agency of the mentoring relationship in learning to teach. © 1998 Elsevier Science Ltd. All rights reserved.

Haynes, R. K. and R. Ghosh (2012). "Towards mentoring the Indian organizational woman: Propositions, considerations, and first steps." Journal of World Business **47**(2): 186-193.

The globalized Indian economy creates employment opportunity for educated Indian women and increases gender diversity in Indian Enterprises (IEs). Increased gender diversity presents myriad challenges for integrating women into the managerial ranks of IEs. We highlight these challenges, offer propositions on the Indian culture, the status of women within IEs, and formal mentoring as a human resource development initiative. Further, we use social identity theory as a lens for understanding these challenges, and integrate knowledge from the Western literature on mentoring women. We conclude by suggesting first steps for developing formal mentoring programs aimed at the Indian organizational woman. © 2011 Elsevier Inc. All rights reserved.

Hebl, M. R., S. Tonidandel, et al. (2012). "The Impact of Like-Mentors for Gay/Lesbian Employees." Human Performance **25**(1): 52-71.

Although research has shown that mentors contribute significantly to employees' job-related outcomes, less research has examined the influence of diverse mentors have on similarly diverse protégés. As such, the current research examined the job-related outcomes of gay/lesbian workers who had a gay/lesbian mentor, a heterosexual mentor, or no mentor. Results showed that participants who had a mentor received more benefits than those without one. Also, gay/lesbian employees who had gay/lesbian mentors reported increased psychosocial job-related outcomes (e. g., job satisfaction) but did not experience increased tangible outcomes (e. g., salary, promotions).

Hennissen, P., F. Crasborn, et al. (2010). "Uncovering contents of mentor teachers' interactive cognitions during mentoring dialogues." Teaching and Teacher Education **26**(2): 207-214.

In the context of developing mentor teachers' use of supervisory skills, two

consecutive studies were conducted, using stimulated recall. Firstly, with eight participants, an instrument was developed to categorize contents of interactive cognitions. Secondly, with 30 participants, the instrument was applied to uncover contents of mentor teachers' interactive cognitions, before and after training in supervisory skills. After training, mentor teachers demonstrate an increased awareness of their use of supervisory skills. This indicates that mentor teachers not only seem to emphasize pupil learning and needs when conducting a mentoring dialogue, but simultaneously focus on their own supervisory behavior. (C) 2009 Elsevier Ltd. All rights reserved.

Hennissen, P., F. Crasborn, et al. (2011). "Clarifying pre-service teacher perceptions of mentor teachers' use of mentoring skills." Teaching and Teacher Education **27**(6): 1049-1058.

The aim of this study is to clarify how pre-service teachers perceive mentor teachers' use of mentoring skills. Sixty stimulated-recall interviews were conducted, each in connection with a previously recorded mentoring dialogue. A quantitative analysis showed that six types of mentoring skills appeared to be perceived by pre-service teachers as offering emotional support and five others as offering task assistance. After mentor teachers were trained in mentoring skills, shifts in their frequencies of use of distinct skills, as observed by independent raters, corresponded to a considerable extent with shifts in frequencies of pre-service teacher perceptions of mentor teachers' mentoring behavior. © 2011 Elsevier Ltd. All rights reserved.

Henriques, P. L. and C. Curado (2009). "Pushing the boundaries on mentoring: Can mentoring be a knowledge tool?" Journal of Business Economics and Management **10**(1): 85-97.

Easy access to organizational knowledge is fundamental in dynamic environments that demand continuous firm adaptation. In that scenario we believe that mentors have a key role as access facilitators to knowledge in the change periods. We have developed this study aiming to explore the role and importance of mentors as knowledge access facilitators. We have approached that role in two different ways. We set apart the knowledge base in two categories: Information centers and organizational memory, accepting that mentors act differently accordingly. Based on the literature reviewed we were able to stage a three-dimensional theoretical setting (mentoring, knowledge, and change) and produce three research questions. We have addressed these research questions using an exploratory qualitative approach to five different firms from three industries apart. This study contributes to the literature at least in two ways. Firstly, it connects the mentor figure to the knowledge base's access, exposing the importance of the mentor as a knowledge access facilitator during change periods. Secondly, by categorizing the knowledge base in two different ways, we are able to explicitly differentiate mentor roles accordingly.

Herrbach, O., K. Mignonac, et al. (2011). "Undesired side effect? The promotion of non-commitment in formal vs. informal mentorships." International Journal of Human

Resource Management **22**(7): 1554-1569.

This article deals with the 'promotion of non-commitment' from mentor to protégé, which is the process by which mentors may provide their protégés with a discourse encouraging them to distance themselves from their organizations rather than commit themselves to them. It is based on two surveys of managerial-level employees, one using a mentor sample and the other one using a protégé sample. Results of the first study indicated that mentor promotion of non-commitment was negatively related to mentor affective organizational commitment. The second study showed that the mentor promotion of non-commitment was negatively related to protégé affective organizational commitment. However, this relationship was weaker in the case of formal mentorships than in that of informal mentorships.

Hersby, M. D., J. Jetten, et al. (2011). "Responding to group-based discrimination: The impact of social structure on willingness to engage in mentoring." Group Processes & Intergroup Relations **14**(3): 319-335.

In two studies we examined women's willingness to engage in mentoring as a function of the perceived pervasiveness of gender discrimination and the appraised legitimacy of discrimination. In line with predictions, and confirming predictions from social identity theory, we found that perceiving discrimination against women to be illegitimate enhanced willingness to engage in mentoring when discrimination was seen to be pervasive compared to rare. In contrast, when gender discrimination was appraised as more legitimate, pervasiveness of discrimination attributions did not influence willingness to engage in mentoring. Study 2 provided evidence that the interactive effect of pervasiveness and legitimacy is explained by the extent to which mentoring is conceived of as support for collective goals. The results bring to the fore the impact of perceptions of the social context on women's responses to career-development initiatives.

Herzog, J., M. I. Grmek, et al. (2012). "Views of Mentors on Primary Education Student Teaching." Croatian Journal of Education-Hrvatski Casopis Za Odgoj I Obrazovanje **14**(1): 25-47.

The first part of the article presents the role of mentors in the practical educational training of students who are offered gradual and controlled access to teaching and mentors' help in teacher training and school practice. In the process students develop various skills. It is therefore extremely important that student teaching programmes are well planned and implemented to the highest possible standards by the appropriately experienced and educated mentors. In the second part of the article the results of a qualitative study involving twenty-six mentors are presented. In the academic year 2009/2010, these mentors offered mentorship to the fourth-year students of the Primary Education academic program at the Faculty of Education, University of Maribor. The study focuses on how mentor teachers evaluate their work and roles. The study further explores how the mentors evaluate the work of the students as teachers, what mentors gain from students, and the relationship between mentors and students. The results indicate that the majority of mentors are neither sufficiently intrinsically motivated to take

on the mentorship, nor are they professionally ready The mentors believe that the mentorship support offered to students is not a burden and that the relationship between them and the students is professional. The mentors believe that students have limited teaching experience and their questions refer mostly to the preparation and implementation of the class. The mentors appreciate novelties and motivational games introduced by the students who thus indirectly affect the mentors' professional development.

Hew, K. F. and D. Knapczyk (2007). "Analysis of ill-structured problem solving, mentoring functions, and perceptions of practicum teachers and mentors toward online mentoring in a field-based practicum." Instructional Science **35**(1): 1-40.

This article describes an exploratory study of question prompts and online mentoring (specifically a lateral or peer mentoring experience) in a field-based practicum that focused on teaching ill-structured problem solving of classroom discipline. Data were gathered on 26 in-service practicum teachers through online observations, online journal reports, questionnaires, and reflection logs. Results showed that the practicum teachers were successful in using the approach to plan and implement effective interventions for their students and that they perceived the online mentoring approach as being very beneficial in supporting their learning. A more detail analysis of seven practicum teachers and their mentors indicated that their mentors engaged in eight types of online mentoring functions; the most frequently used were asking practicum teachers to elaborate, and valuing the practicum teachers' contributions. The influence of the mentoring functions on the seven practicum teachers' ill-structured problem solving is also discussed. The study offers evidence that asynchronous online mentoring and question prompts can enhance the professional development of both practicum teachers and mentors by helping them learn about and apply intervention strategies in solving real-world teaching problems.

Hibert, K. M. (2000). "Mentoring leadership." Phi Delta Kappan **82**(1): 16-18.

An assistant principal describes long term benefits from her mentoring relationship with the principal of Santa Monica (California) High School. Chagrined at her principal's close, hands-on supervisory style, the assistant principal gradually gained experience and confidence. She learned that leadership is about serving others, compassion, and social justice. (MLH)

Hill, R. D., L. G. Castillo, et al. (1999). "Mentoring ethnic minority students for careers in academia: The WICHE Doctoral Scholars Program." Counseling Psychologist **27**(6): 827-845.

The need for academic mentoring of ethnic minority doctoral students in counseling psychology has resulted in a call for training programs to build environments that not only provide financial assistance, bur also work toward enhancing qualitative aspects of training that may be important in the students' preparations for future academic careers. This article describes the Western Interstate Commission of Higher Education's (WICHE) Doctoral Scholars Program that provides both external funding and strategies designed to encourage

faculty-student mentoring. The extent to which WICHE has influenced doctoral training in the counseling psychology program at the University of Utah is described from the perspective of the WICHE director, a WICHE faculty mentor and two WICHE doctoral scholars. The importance of the faculty mentor as a facilitative agent in the training of ethnic minority students and in helping them to prepare for careers in academia is highlighted.

Hill, S. E. K., M. H. Bahniuk, et al. (1989). "Mentoring and other communication support in the academic setting" Group & Organization Studies **14**(3): 355-368.

The purpose of this study was to determine the dimensional structure of mentoring and other communication support behaviors in an academic environment. Professors (N =224) at two universities were surveyed. A communication support questionnaire was developed, and three separate factors emerged as elements of perceived communication support: the Mentor/Protégé Dimension, the Collegial Social Dimension, and the Collegial Task Dimension. The Mentor/Protégé Dimension appears to represent the traditional concept of mentoring. The Collegial Social Dimension is more reciprocal and friendship oriented. The Collegial Task Dimension reflects reciprocal support that is work related. The study supported the idea of multidimensional support within an academic organization.

Hirschfeld, R. R., C. H. Thomas, et al. (2006). "Achievement and avoidance motivational orientations in the domain of mentoring." Journal of Vocational Behavior **68**(3): 524-537.

To extend research on fundamental motivational orientations into a new domain, we explored the achievement (positive) and avoidance (negative) orientations of formal organization-based mentors and protégés as joint predictors of personal learning experienced by both parties. We also examined the extent of mentoring functions provided by mentors as a hypothesized partial mediator. Regression analyses of 8-month data from 61 dyads revealed that mentors' personal learning was predicted by protégés' achievement (positive) and avoidance (negative) orientations, whereas protégés' personal learning was predicted by their own achievement orientation (positive). Although the extent of mentoring functions facilitated personal learning equally among mentors and protégés, it did not function as a mediator. Finally, mentor-protégé congruence on achievement orientation had implications for the personal learning of protégés. (c) 2005 Elsevier Inc. All rights reserved.

Holland, S. H. (1996). "Project 2000: An educational mentoring and academic support model for inner-city African American boys." Journal of Negro Education **65**(3): 315-321.

School failure appears to be it major risk factor and harbinger of the crime, violence, and other disasters that often characterize the experiences of African American boys in urban America. Starting with the first grade and continuing throughout secondary school, PROJECT 2000 is one approach aimed at addressing this problem. With the support of civic and corporate sponsors and volunteers, this community-based program provides Black boys with adult male

role models who offer assistance with academic subjects, comradery, and guidance. This article outlines the scope and vision of the program, and its impact on the education of Black male youth.

Hollingsworth, M. A. and R. E. Fassinger (2002). "The role of faculty mentors in the research training of counseling psychology doctoral students." Journal of Counseling Psychology **49**(3): 324-330.

This study investigated research on mentoring experiences of counseling psychology doctoral students as predictors of students' research productivity. The authors also assessed the research training environment and research self-efficacy as influences on research productivity. Participants were 194 third- and fourth-year counseling psychology doctoral students. Results indicated that the research-training environment predicted students' research mentoring experiences and their research self-efficacy. Both research mentoring experiences and research self-efficacy mediated the effect of the research-training environment on research productivity. Analyses showed no significant differences in these relationships by student gender or scientific stature of training programs.

Holloway, J. H. (2001). "The benefits of mentoring." Educational Leadership **58**(8): 85-86.

Reviews research on the characteristics and benefits of new-teacher mentoring programs. (PKP)

Horgan, D. D. and R. J. Simeon (1990). "Gender, mentoring and tacit knowledge." Journal of Social Behavior and Personality **5**(4): 453-471.

Examined how tacit knowledge (TK) is acquired and explored the relationship between TK and career success (as measured by income) in a replication of a study by R. Wagner and R. Sternberg. 53 male and 35 female executives completed a survey that included a TK test and items concerning their current job and demographics. Results for men, but not women, support those of Wagner and Sternberg, showing a positive relationship between TK and income. Having had a mentor was not associated with higher levels of TK or perceived competency. Women did not score lower than men on TK measures. (PsycINFO Database Record © 2012 APA, all rights reserved)

Horvath, M., L. E. Wasko, et al. (2008). "The Effect of Formal Mentoring Program Characteristics on Organizational Attraction." Human Resource Development Quarterly **19**(4): 323-349.

Although the extant mentoring literature describes the post-hire benefits of mentoring programs, less is known about how mentoring programs affect pre-hire perceptions of organizations-perceptions that may have subsequent implications for the success of mentoring programs and other HRD practices. To explore this issue, we used a policy-capturing design to examine the influence of formal mentoring program characteristics on organizational attraction. Results from a sample of 254 undergraduate participants indicated preferences for organizations offering mentorship programs that are voluntary, that give protégé input into the

choice of mentor, that link protégés with individuals who hold higher rank (that is, supervisors), and that offer both career and psychosocial support. Furthermore, one of these relationships was moderated by participants' Need for Dominance. Implications for practice and research are discussed.

Hubbard, S. S. and J. P. Robinson (1998). "Mentoring: A catalyst for advancement in administration." Journal of Career Development **24**(4): 289-299.

College administrators from department heads to presidents (159 men, 170 women) were interviewed. More women had mentors, especially female mentors, early in their professional careers and male mentors at the master's doctoral level. (SK)

Hudson, P. (2005). "Identifying mentoring practices for developing effective primary science teaching." International Journal of Science Education **27**(14): 1723-1739.

A literature-based survey gathered 331 final-year pre-service teachers' perceptions of their mentoring in primary science education from nine Australian universities. Data were analyzed within five factors proposed for mentoring (i.e., Personal Attributes, System Requirements, Pedagogical Knowledge, Modeling, and Feedback). Results indicated that the majority of mentors (primary teachers) did not provide specific mentoring in primary science, particularly in the science teaching practices associated with the factors System Requirements, Pedagogical Knowledge, and Modeling. This study argues that mentors may require further education to learn how to mentor specifically in primary science, and proposes a specific mentoring intervention as a way forward for developing the mentor's mentoring and teaching of primary science.

Hudson, P., K. Skamp, et al. (2005). "Development of an instrument: Mentoring for effective primary science teaching." Science Education **89**(4): 657-674.

Perceptions of mentors' practices related to primary science teaching from nine Australian universities (N = 331 final-year pre-service teachers) were gathered through a literature-based instrument. Five factors that characterize effective mentoring practices in primary science teaching were supported by confirmatory factory analysis. These factors, namely, personal attributes, system requirements, pedagogical knowledge, modeling, and feedback, had Cronbach alpha coefficients of internal consistency reliability of .93, .76, .94, .95, and .92, respectively. Final model fit indexes were chi(2) = 1335, df = 513, CMIDF = 2.60, IFI = .922, CFI = .921, RMR = .066, RMSEA = .070 ($p < .001$). Specific mentoring interventions for improving primary science teaching practices may be implemented by measuring pre-service teachers' perceptions of their mentoring with a valid and reliable instrument. (c) 2005 Wiley Periodicals, Inc. Sci Ed 89:657-674, 2005.

Huffman, G. and S. Leak (1986). "Beginning teachers' perceptions of mentors." Journal of Teacher Education **37**(1): 22-25.

After a year of implementation of a be ginning teacher support system, 108 new teachers were asked their reactions to the mentoring program. Huffman and Leak found that mentors could be effective in addressing the needs of new teachers, but

to maximize their effective ness the mentors should teach the same content and work at the same grade level as the beginning teacher. Furthermore, the authors conclude that it is imperative to provide adequate conference time for mentors and beginning teachers if the induction participants are to achieve program objectives.

Hulingaustin, L. (1992). "Research on learning to teach – Implications for teacher induction and mentoring programs." Journal of Teacher Education **43**(3): 173-180.

Research on learning to teach has implications for the design of induction and mentoring programs: (a) Giving beginning teachers difficult teaching assignments (multiple preparations, subjects out of their field, or demanding extracurricular assignments) is not only stressful for them but impedes the process of learning to teach; (b) to survive the shock of classroom reality, novice teachers need collegial support from experienced teachers and peers; (c) in addition to training in how to provide support, mentor teachers can benefit from learning about cognitive theory and how to integrate subject matter into discussions with novice teachers; (d) beginning teachers should be evaluated differently than experienced teachers because learning to teach is a highly complex process that takes time to master.

Hulse, D. and D. Sours (1984). "Multiple mentoring with single mothers." Journal of Employment Counseling **21**(1): 31-37.

This article describes the use of multiple mentoring as a technique to help single mothers. The mentoring process and the use of multiple mentoring for pre-entry level women are reported. Practical considerations are given for counselors using such a model.

Hunt, D. M. and C. Michael (1983). "Mentorship - A career training and development tool." Academy of Management Review **8**(3): 475-485.

Reviews the literature on mentorship and presents an initial framework for research on mentor–protégé relationships for both men and women. Critical dimensions of this framework include the context within which a mentor–protégé relationship exists, gender of these role partners, characteristics each partner seeks in the other, stages of the relationship, and positive and negative outcomes accruing to the mentor, the protégé, and their organization. (PsycINFO Database Record © 2012 APA, all rights reserved)

Hutchison, C. B. and M. Jazzar (2007). "Mentors for teachers from outside the US." Phi Delta Kappan **88**(5): 368-373.

Experienced teachers often serve as mentors to novices. In this article, the authors explore a new variety of mentorship that is evolving as growing numbers of international teachers are hired to work in U.S. schools. It is stated here that effective mentoring, though not a guarantee, can significantly improve international teachers' cultural adaptation and classroom success. Even international teachers who are veterans in their native countries must still learn about local best practices. Furthermore, the authors offer vignettes to illustrate the

issues that international teachers face, and the ways in which sound mentoring can help them settle in and teach successfully.

Ibarra, H. (2000). "Making partner: The mentor's guide to the psychological journey." Harvard Business Review **78**(2): 146-7455.

For years, partners at professional service firms considered the leap from professional to partner a function of "natural selection"— a test of survival of the fittest. But that model is on the verge of extinction: in today's firms, securing and retaining talent is becoming paramount as young MBAs, once willing to log years of hard labor in hopes of being made partner, are leaving in hordes for hot new Internet companies. So how can companies keep the talent they've worked so hard to cultivate? One way, Ibarra says, is to have partners take a more active mentoring role in helping junior professionals create a partner persona. She explains the three steps that senior colleagues can take to guide junior professionals on this journey. The first has to do with observing role models. By taking a collage approach, young professionals can survey a broad range of personalities and so accumulate a larger repertoire of possible styles to choose from. For their part, partners can assist in this observation process by communicating explicitly what styles work for them and why. The second step partners can take is to encourage professionals to develop a repertoire of role models; by working with many senior professionals, junior colleagues are more apt to find just the right mix of mentors. And third, senior people can take extra care to support young professionals at the most difficult moments in the process. Indeed, the leap from professional to partner is difficult-even trying at times. But for those willing and daring enough to take the leap-and for those who've already made it- understanding the associated psychological and emotional obstacles is critical to success.

Indyk, D., D. Deen, et al. (2011). "The influence of longitudinal mentoring on medical student selection of primary care residencies." BMC Medical Education **11**.

Background: The number of students selecting careers in primary care has declined by 41% in the last decade, resulting in anticipated shortages. Methods: First-year medical students interested in primary care were paired with primary care mentors. Mentors were trained, and mentors and students participated in focus groups at the end of each academic year. Quantitative and qualitative results are presented. Results: Students who remained in the mentoring program matched to primary care programs at 87.5% in the first year and 78.9% in the second year, compared to overall discipline-specific match rates of 55.8% and 35.9% respectively. Students reported a better understanding of primary care and appreciated a relationship with a mentor. Conclusions: A longitudinal mentoring program can effectively support student interest in primary care if it focuses on the needs of the students and is supportive of the mentors.

Irvine, J. J. (1985). "The master teacher as mentor – Role perceptions of beginning and master teachers." Education **106**(2): 123-130.

Investigated the role expectations of master teachers as perceived by both

beginning and master teachers. A questionnaire was administered to 10 pairs of beginning and master teachers (all female) in a formal mentor–protégé relationship. Results indicate that beginning teachers expected a great deal of support during their early months in the profession, but these expectations significantly diminished over time. Master teachers reported excessive time demands associated with the mentor role, but thought the advantages outweighed the disadvantages. (PsycINFO Database Record © 2012 APA, all rights reserved)

Isaac, P. and L. Trodd (2008). "Sustaining leadership learning: the tutor and mentor voice on NPQICL." European Early Childhood Education Research Journal **16**(1): 39-52.
The National Professional Qualification in Integrated Centre Leadership (NPQICL) is a program that supports children's center leaders to develop their own leadership capability. This research highlights the effect the particular constructivist teaching and learning methodology has had on individual tutors' and mentors' professional development. By examining the challenges they encountered whilst delivering this program in the first year of the national 'rollout', the study explores the impact of the delivery process on tutors' and mentors' practice and its future implications. Based on narrative inquiry into their experiences during the first year, the article identifies central issues in terms of sustaining the program's philosophy and quality, whilst at the same time retaining its fundamental responsiveness. Its conclusions demonstrate how the design of the program has influenced the professional identities of those involved and the sustainability of transformational change across regional provider teams.

Jacoby, D. (1989). "Rewards make the mentor." Personnel **66**(12): 10-&.
Structured mentoring programs pairing mentors and protégés can be an excellent vehicle for: leadership development; training and sharing of expertise; and rapid development of talent. Mentoring programs can also be a valuable marketing tool for attracting outside managerial recruits. However, mentoring programs must be well designed and evaluated by human resource professionals, and they should be based on reward systems. The main problems encountered when implementing programs are that mentoring may not be appropriate for all managers. Some managers object to mentoring because they perceive that the programs are outside of their usual work and interpersonal skills, while others object to programs because they resent not receiving the same rewards as others who are more successful.

Jipson, J. and N. Paley (2000). "Because no one gets there alone: Collaboration as co-mentoring." Theory into Practice **39**(1): 36-42.
Describes the long-time, collaborative, co-mentoring relationship that developed between two university professors who were good friends prior to being collaborators, explaining how the co-mentoring creates a creative, democratic space for the formation of insights and understandings that help them search for and choose themselves in different situations. Four mantras/metaphors that emerged from the process are discussed. (SM)

John, K. (2008). "Sustaining the leaders of children's centres: the role of leadership mentoring." European Early Childhood Education Research Journal **16**(1): 53-66.

Leadership mentoring is a central component of the National Professional Qualification in Integrated Centre Leadership (NPQICL), which is designed to develop robust, creative and courageous children's center leaders. Mentoring provides a safe, supportive and confidential space in which leaders can discuss the challenges of leading their centers. Like NPQICL tutors, mentors encourage program participants to build teams, inspire leadership in others and collaborate in addressing the complexities of providing integrated services. But working with discouraged children, families and communities can be discouraging for staff and leaders - and undermine effective provision. Mentoring is meant to be an encouraging process where leaders learn that others have similar experiences and concerns, which helps to restore their confidence, sense of purpose and agency - and their ability to contain others' negative emotions. Concepts from Adlerian psychology, such as the 'courage to be imperfect', informed the mentoring approach, and findings from 23 NPQICL program participants' feedback supported the efficacy of the methods used.

Johnson, K. A. (2003). ""Every experience is a moving force": identity and growth through mentoring." Teaching and Teacher Education **19**(8): 787-800.

This narrative of the experience of a native English speaking (NES) cooperating teacher working with a normative English speaking (NNES) student teacher in an MA Teaching English as a Second Language practicum begins with a discussion of teacher identity, then outlines the significance of caring in teacher-student relations Noddings (Caring: A feminine approach to ethics and moral education, University of California Press, Berkeley, CA, 1984) and personal values and beliefs within those relations Johnston (Values in English Language Teaching, Lawrence Erlbaum, Malwah, NJ, 2002). These then frame an understanding of three critical incidents Tripp (Qual. Stud. Educ. 7(l) (1994) 65), and the emergent themes of language expertise, cultural ways of knowing and doing, and conflicting religious beliefs. It concludes with a discussion of the value of writing and sharing teacher narratives for professional development. (C) 2003 Elsevier Ltd. All rights reserved.

Johnson, N. B. and T. A. Scandura (1994). "The effect of mentorship and sex-role style on male-female earnings." Industrial Relations **33**(2): 263-274.

The women in management literature contend that mentorship and sex-role style affect women's career success and ultimately earnings. We use data from the public accounting profession (N = 833) and a human capital wage decomposition model to examine the effect of mentorship and sex-role style on male-female wages and wage differentials. The results suggest that career mentorship modestly increases only women's earnings. However, sex-role style was found to significantly interact with gender to affect earnings and earnings differentials.

Johnson, W. B. (2002). "The intentional mentor: Strategies and guidelines for the practice of mentoring." Professional Psychology-Research and Practice **33**(1): 88-96.

How can faculty in professional psychology programs become more intentional and effective mentors? Many psychology graduate students are never mentored, and very few psychologists have ever received training in the practice of mentoring. This article briefly summarizes the nature of mentoring, the prevalence of mentoring in psychology, primary obstacles to mentoring, and some ethical concerns unique to mentoring. The article provides several strategies to enhance mentoring and guidelines for the profession, departments of psychology, and individual psychologists who serve as mentors. This article is designed to help readers take a more deliberate approach to the practice of mentoring.

Johnson, W. B. (2007). "Transformational supervision: When supervisors mentor." Professional Psychology-Research and Practice **38**(3): 259-267.

Can a psychologist simultaneously fill the roles of clinical supervisor and mentor to a trainee? What are the implications of adding a mentoring component to a supervisory relationship? Like academic advising, supervision need not incorporate a mentoring function. However, the author hypothesizes that, all things considered, it is better for supervisees, and probably supervisors and training sites, too, when supervising psychologists engage supervisees in connected, collaborative, and increasingly reciprocal developmental relationships. There are numerous implications of mentoring-infused or transformational supervision, not the least of which is the inescapable tension between the supervisor's mentoring and evaluative roles. The author calls for concerted research and practice development in this area.

Johnston, S. and C. McCormack (1997). "Developing research potential through a structured mentoring program: Issues arising." Higher Education **33**(3): 251-264.

Changes in higher education have meant that academics originally in institutions without a strong research culture are now being called upon to raise their level of research activity. These institutions have implemented a range of strategies to support their academic staff making this transition. One program to develop research potential of staff is reported in this paper. It involved matching inexperienced researchers with experienced researchers who acted in a mentoring role. The individual mentoring was supplemented with a two-day workshop covering research skills and also providing an opportunity to focus on the issues, questions and projects of the participants. An evaluation of the program revealed that participants benefited from the support provided by their peers in the program as well as from the support provided by the mentors. The mentors assisted the participants with specific aspects of their research and also with the social and political aspects of research involvement. The program legitimated the helping relationship established between participants and mentors.

Jones, A. and J. Vincent (2010). "Collegial mentoring for effective whole school professional development in the use of IWB technologies." Australasian Journal of Educational Technology **26**(4): 477-493.

The focus of this chapter is the provision of teacher professional development as needed - just in time. The specific context is the application of peer mentoring in

teaching and learning with interactive whiteboards. Data was gathered from two research projects that investigated aspects of teachers mentoring colleagues in Australia. In both projects lessons were video recorded and the teachers interviewed about their perceptions of ICT use in the lessons. In one project two teachers were appointed as half-time mentors to assist colleagues in classroom use of IWBs. This appeared to result in improved levels of success for all the stakeholders. The aim in the other project was to explore how to prepare primary classroom teachers to become mentors within their school. One recommendation arising from the research is that education systems should fund ICT mentor positions to help overcome immediate teacher needs as quickly as possible.

Karsai, I., J. Knisley, et al. (2011). "Mentoring Interdisciplinary Undergraduate Students via a Team Effort." CBE-Life Sciences Education **10**(3): 250-258.

We describe how a team approach that we developed as a mentoring strategy can be used to recruit, advance, and guide students to be more interested in the interdisciplinary field of mathematical biology, and lead to success in undergraduate research in this field. Students are introduced to research in their first semester via lab rotations. Their participation in the research of four faculty members-two from biology and two from mathematics-gives them a first-hand overview of research in quantitative biology and also some initial experience in research itself. However, one of the primary goals of the lab rotation experience is that of developing teams of students and faculty that combine mathematics and statistics with biology and the life sciences, teams that subsequently mentor undergraduate research in genuine interdisciplinary environments. Thus, the team concept serves not only as a means of establishing interdisciplinary research, but also as a means of incorporating new students into existing research efforts that will then track those students into meaningful research of their own. We report how the team concept is used to support undergraduate research in mathematical biology and what types of team-building strategies have worked for us.

Katajavuori, N., S. Lindblom-Ylanne, et al. (2005). "Pharmacy mentors' views of practical training." Research in Science Education **35**(2-3): 323-345.

Practical knowledge and skills are necessary components of expertise. Practical training in higher education has been shown to foster students' learning and understanding of theoretical backgrounds. The attitude and skill of mentors play a central role in enhancing the quality of students' practical learning. The aims of this study were to explore mentors' experiences of the practice period and mentoring process, and to develop practical performances to improve the practice period that s included in theoretical pharmaceutical studies in Finland. A total of 48 pharmacy mentors were interviewed during the practice period of the pharmacy curriculum. The interviews were analyzed using qualitative content analysis. The results showed that the mentors considered the practice period an essential part of pharmacy studies, which fostered student learning and benefited the community pharmacy. Mentoring activities, mentoring processes and assessment of students varied in the pharmacies. The results showed that it is necessary to pay more attention to the aims and the content of the practice period.

More cooperation is needed between the University and pharmacies. There is also a clear need to pay attention to reflective action in order to foster the quality of practical learning.

Katz, J. (1995). "Reconstructing masculinity in the locker room: The mentors in violence prevention project." Harvard Educational Review **65**(2): 163-174.

Few violence prevention programs of any kind foreground discussions of masculinity. In his work with college athletes, Jackson Katz positions the sociocultural construction of manhood as central to the problem of men's violence against women, as well as the basis of potential sources of prevention. Through the Mentors in Violence Prevention (MVP) Project at Northeastern University in Boston, Katz and his colleagues seek to reduce men's violence against women by inspiring athletes and other models of traditional masculine success to challenge and reconstruct predominant male norms that equate strength in men with dominance over women. The Project specifically encourages participants to use their stature among their peers on campus to promote healthier attitudes and behaviors towards women.

Kaufmann, F. A., G. Harrel, et al. (1986). "The nature, role and influence of mentors in the lives of gifted adults." Journal of Counseling and Development **64**(9): 576-578.

A total of 68 male and 71 female 1964–1968 Presidential Scholars completed a survey that included items pertaining to the nature and influence of their mentors. Data on Ss' educational levels, occupational fields, salaries, and achievements were also examined. Results suggest that having a mentor tended to equalize the earning power of men and women, thus supporting the notion that mentors are especially valuable to women in the early stages of their careers. Role modeling and encouragement were reported to be the most important functions of mentors. Implications for counselors to help develop these relationships are discussed. (16 ref) (PsycINFO Database Record © 2012 APA, all rights reserved)

Kaye, B. and B. Jacobson (1995). "Mentoring - A group guide." Training & Development **49**(4): 22-27.

One-on-one mentoring relationships can narrow opportunities for employees whose development requires group support. The new model substitutes interactive mentoring groups for the isolated twosomes of traditional mentoring relationships. (JOW)

Kaye, B. and B. Jacobson (1996). "Reframing mentoring." Training & Development **50**(8): 44-47.

A systematic mentoring approach combines old and new concepts from organizational learning, including intentional learning, failure and success, and storytelling. Mentoring should be a process of mature development and a joint venture, with a learning contract that aligns the mentor, protégés, and the protégés' manager. (JOW)

Kerry, T. and J. Farrow (1996). "Changes in initial teacher training students' perceptions

of the effectiveness of school-based mentoring over time." Educational Studies **22**(1): 99-110.

This article looks at mentoring in the Open University's Postgraduate Certificate in Education (PGCE) course: a distance learning, competence-based course of part-time Initial Teacher Training (ITT) for primary and secondary students. It emphasizes the importance of school-based mentoring, and looks at changing student perceptions of mentoring over the duration of the course. Questionnaires and interviews are used to explore a range of issues about mentoring in ITT. The findings suggest that students become more discerning about, and more critical of, their mentor as the course proceeds. Some attempt is made to suggest how these attitudes can be improved. The mentors' perceptions are compared with those of the students.

Kilbourn, B. and G. Roberts (1991). "May's first year: conversations with a mentor." Teachers' College Record **93**(2): 252-264.

Describes a first-year teacher's efforts to become a teacher and her experiences of the complex relationships among control, subject matter, and teaching. The article stresses the importance of the institutional context within which the beginner works, noting her relationship with her department head and mentor. (SM)

Kilburg, G. M. and T. Hancock (2006). "Addressing sources of collateral damage in four mentoring programs." Teachers College Record **108**(7): 1321-1338.

This article examines the types of recurring problems that can inhibit K-12 mentoring team relationships and intervention strategies to remedy those problems. The study examines 149 mentoring teams in four school districts over a 2-year period. Data collection was coordinated by the researcher who was also the trainer for the four school districts' mentoring programs. Each year of the study, the survey and interview processes were repeated. From the analysis of data, the research team identified a common set of recurring problems during both years. Intervention strategies were then identified, introduced, and assessed. Results indicate the need for continual assessment of mentoring programs and mentoring team relationships, financial commitment from the school district, a rigorous mentor selection process, and providing in-service and workshop opportunities for problem solving.

Kitchener, K. S. (1992). "Psychologist as teacher and mentor: affirming ethical values throughout the curriculum." Professional Psychology-Research and Practice **23**(3): 190-195.

This article argues that those involved in mentoring and teaching graduate students in professional psychology training programs must be concerned with two extracurricular issues when they consider how to influence students' ethical behavior. First, they must be ethical in their own interactions with students. Second, they must deal responsibly with students when students engage in unethical or unprofessional conduct. It argues that the implicit attitudes and explicit behavior of faculty communicate as much as course content about being ethical. Last, it identifies strategies for handling these special responsibilities on

the basis of the Ethical Principles of Psychologists (American Psychological Association, 1990) and the broader ethical principles underlying those standards.

Klug, B. J. and S. A. Salzman (1991). "Formal induction vs. informal mentoring: comparative effects and outcomes." Teaching and Teacher Education **7**(3): 241-251.
This 2-year longitudinal study investigated the comparative effects and outcomes of two models used for the induction of 27 novice teachers in three rural southeastern Idaho school districts. Both qualitative and quantitative methods were employed in the collection of data relating to the teaching skills of the beginning teachers, benefits of the two models, and changes in attitude toward teaching and the culture of teaching experienced by induction program participants. Findings of the study support the need for structured induction programs for beginning teachers.

Knouse, S. B. (2001). "Virtual mentors: mentoring on the Internet." Journal of Employment Counseling **38**(4): 162-169.
Mentoring is an increasingly important function for career success. Many special groups, however, including minorities and women, have difficulty finding a mentor. One solution is virtual mentoring-selecting and interacting with mentors on the Internet. The author discusses advantages of virtual mentoring over other forms of mentoring, describes examples of Internet mentoring for various special groups and purposes, and suggests future directions for Internet mentoring.

Koballa, T. R., J. Kittleson, et al. (2010). "Teacher Thinking Associated With Science-Specific Mentor Preparation." Science Education **94**(6): 1072-1091.
Framed by sociocultural theory, the purpose of the study was to understand the cultural tools used by science teachers when leaning to mentor and how tool use may lead to the construction of new understandings about mentoring. The participants were 37 experienced teachers enrolled in a federally funded science-specific mentor preparation program. Data took the form of interview transcripts, electronic bulletin board postings, and written cases. Program participants were found to use a range of tools to mediate their thinking about science teacher mentoring. Analysis of data revealed that the participants used the discourse of science teaching as well as such tools as classroom observation strategies and interpersonal mentoring approaches, to mediate their thinking about mentoring. The participants' tools also included images that mediated their responses to specific mentoring challenges and dilemmas that highlighted for them contradictions in their thinking about mentoring. The cultural tools used by the science teachers when learning to mentor provide insight into how they think about science teacher mentoring and the nature of the professional learning experiences needed to enable them to develop as mentors. © 2010 Wiley Periodicals. Inc. Sci Ed 94:1072-1091, 2010.

Koberg, C. S., R. W. Boss, et al. (1994). "Correlates and consequences of protégé mentoring in a large hospital." Group & Organization Management **19**(2): 219-239.
Using a statistical model, this study examined the correlates and outcomes of

mentoring among a sample of 635 technically skilled professional and managerial hospital employees (men and women). Whereas individual as well as group and organizational characteristics influenced mentoring, group and organizational variables accounted for more variance in mentoring than did the individual variables. Mentoring increased with the protégé's organizational rank, with leader approachability, and with group effectiveness; it decreased as the protégé's tenure in the organization increased. Men reported more mentoring than women, and non-White minority individuals reported higher levels of mentoring than did White individuals. Mentoring was also associated with increased job satisfaction and decreased work alienation.

Koberg, C. S., R. W. Boss, et al. (1998). "Factors and outcomes associated with mentoring among health-care professionals." Journal of Vocational Behavior **53**(1): 58-72.

On the basis of a model developed by Hunt and Michael (1983), this study showed that protégé characteristics (ethnicity and education), group characteristics (intragroup trust and leader approachability), and the gender and racial composition of the mentoring pair had significant effects on psychosocial mentoring among a sample of working professionals from a large, private hospital. Psychosocial mentoring was associated with increased job involvement and self-esteem at work and a decreased propensity to leave the organization. © 1998 Academic Press.

Kochan, F. K. and S. B. Trimble (2000). "From mentoring to co-mentoring: Establishing collaborative relationships." Theory into Practice **39**(1): 20-28.

Describes a collaborative mentoring relationship between a graduate student and the director of a university laboratory school, which grew as they became college professors. The mentoring relationship provides opportunities for them to develop dispositions and abilities that are important in strengthening their capacities to grow personally and professionally. This in turn allows them to create and nurture collaborative work cultures. (SM)

Kopcha, T. J. (2010). "A systems-based approach to technology integration using mentoring and communities of practice." ETR&D-Educational Technology Research and Development **58**(2): 175-190.

The purpose of this article is to present a systems-based mentoring model of technology integration that follows a research-based path. The model moves teachers through four specific stages of technology adoption toward using technology to support learning in more student-centered ways. The model describes how a mentor can negotiate the interplay of multiple barriers (time, beliefs, access, professional development, culture) on teachers who are learning to integrate technology and suggests a number of strategies for integrating technology, such as establishing a culture of technology integration, modeling technology use, and creating teacher leaders. Unlike previous mentoring approaches to integrating technology into the classroom, this model culminates with the establishment of a teacher-led community of practice that uses the

resources currently available at a school to support and sustain the implementation of the system. Suggestions for implementing the model in a variety of K-12 and higher education settings are discussed.

Kram, K. E. (1983). "Phases of the mentor relationship." Academy of Management Journal **26**(4): 608-625.

The mentor relationship can significantly enhance development in early adulthood and also in the midcareer stage of the more experienced individual. A conceptual model derived from an intensive biographical interview study of 18 relationships in one corporate setting is presented to highlight the successive phases of this developmental relationship.

Kram, K. E. (1985). "Improving the mentoring process." Training and Development Journal **39**(4): 40-43.

Discusses "mentoring" in the organizational environment, referring to the broad range of developmental relationships between juniors and seniors and among peers. It is suggested that mentoring rarely achieves its potential and that, most often, mentors are available to only a few high-potential managers. An organizational development approach to improve the mentoring process involves 4 steps: defining the objectives and scope of the project; diagnosing the individual and organization circumstances promoting or interfering with effective mentoring; implementing educational programs, changes in the reward system, task design, or other management practices; and evaluating the intervention to determine what modifications are needed. It is concluded that failure to define objectives and conduct a diagnosis can promote resistance among those who should benefit from the process. Rather than introduce a formal mentoring program, the human resources development professional should establish a sequence of programs and organizational changes that support rather than force the mentoring process. (PsycINFO Database Record © 2012 APA, all rights reserved)

Kram, K. E. and D. T. Hall (1989). "Mentoring as an antidote to stress during corporate trauma." Human Resource Management **28**(4): 493-510.

This article examines mentoring as a potentially useful resource in an organization's adaptation to global competition and the need for improved learning capabilities. We were surprised to find that mentoring relationships were perceived as more desirable under conditions of corporate stress, low job challenge, and low job involvement. We were further surprised to find that individuals in early and later career stages were as likely, or more likely than, their midcareer colleagues to embrace the mentoring role. Thus, it appears that mentoring may be more readily available as an antidote to stress than previously considered, and that it may be an important form of coping with the stressful, non-rewarding conditions that typically characterize corporate downsizing. Not only is mentoring an important form of promoting development (for self and for others), but it also may represent a valuable vehicle for social support and learning during times of major corporate change.

Kram, K. E. and L. A. Isabella (1985). "Mentoring alternatives – The role of peer relationships in career development." Academy of Management Journal **28**(1): 110-132.

Examined the nature of supportive and significant peer relationships at early, middle, and late career stages. Six 25–35 yr. olds, 5 36–45 yr. olds, and 4 46–65 yr. olds (balanced for gender) with at least 3 yrs. tenure at a manufacturing company and a willingness to participate were asked to select up to 2 individuals with whom they had supportive relationships. These significant others were interviewed by 3 researchers. Analysis of 25 relationship pairs identified a range of career-enhancing functions of peers similar to those found in mentoring relationships. Some peer relationships only provided 1 career-enhancing function, while others provided a wide range of career-enhancing and psychosocial functions. Peer relationships functioned to provide developmental benefits that offered a degree of mutuality. Three types of peer relationships were identified: information peer, collegial peer, and special peer. The process of a peer relationship in the establishment stage was similar to that which might characterize a mentoring relationship. Peer relationships at the advancement stage seemed especially malleable and Ss especially receptive to differences in day-to-day needs. At middle-career, peer relationships were generally with younger people. At late career, peer relationships seemed to reflect the impending move out of the organization. (27 ref) (PsycINFO Database Record © 2012 APA, all rights reserved)

Kramer, M. C. (2001). "Triumph out of the wilderness - A reflection on the importance of mentoring." Phi Delta Kappan **82**(5): 411-412.

A high-school Spanish teacher recalls her first hectic year. She would have quit, without assistance with everyday classroom realities from an official mentor (a vice principal), a biology teacher, and a second-grade teacher (her mother). These mentors eventually became her best friends. (MLH)

Kuchinke, K. P. (2012). "Invited reaction: Mentoring as an HRD approach: Effects on employee attitudes and contributions independent of core self-evaluation." Human Resource Development Quarterly **23**(2): 167-175.

This article is a review of the work by Paul Thurston titled “Mentoring as an HRD Approach: Effects on Employee Attitudes and Contributions Independent of Core Self-Evaluation”. The article by Thurston and colleagues responds to the need to better understand the individual and firm-level outcomes of mentoring, a commonly practiced form of employee development in organizations. The focus on the results of HRD provisions, programs, and processes is welcome and important and has been a central concern for many, if not most, research projects in the field. A perennial challenge for these projects is the question if causal inferences can be implied, can specific individual-level interventions or behaviors be linked to organizational-level outcomes in the research settings? Extant research programs are quite robust in demonstrating positive correlations between bundles of HR provisions and firm-level outcomes in aggregates of organizations (see, for example, Ulrich, Huselid, and Becker, 2001) on the effectiveness of high-performance work systems). We also begin to understand the contours of

phenomena like mentoring through meta-analyses, as is described in the "Mentoring" article.

Kvaal, S. A. and S. A. Meyers (2003). "Who is teaching psychology? Availability of gender and ethnically diverse mentors." Teaching of Psychology **30**(4): 321-323.

We surveyed 882 students enrolled in clinical, counseling, and school psychology doctoral programs to determine the gender and ethnic minority composition of their graduate school and internship training faculties. Across faculties, men outnumbered women, but there was greater gender parity among internship faculty. Although the absolute number of faculty of color was small, their representation was comparable to the percentage of students of color enrolled in psychology doctoral and internship training programs. Graduate students of color were more likely to attend schools and internships with a higher percentage of minority faculty.

Laabs, J. J. (1993). "Mentors offer students the tools for job success." Personnel Journal **72**(3): 57-59.

The author discusses a Procter & Gamble Co. program (ASPIRE) in which employees help high school students develop a positive attitude toward learning while preparing for future careers. Program history and process of constructing a conceptual framework are also discussed.

Laband, D. N. and B. F. Lentz (1995). "Workplace mentoring in the legal profession." Southern Economic Journal **61**(3): 783-802.

The benefits of mentoring aspiring lawyers by their older counterparts are discussed, along with a recommendation that other professional vocations adopt similar patterns of mentoring. The benefits discussed include the ability to better match mentees with appropriate jobs, as well as decreasing workplace turnover and increasing loyalty between the mentee and company, and also between employees.

Laband, D. N. and B. F. Lentz (1999). "The impact of having a mentor on earnings and promotion: evidence from a panel study of lawyers." Applied Economics Letters **6**(12): 785-787.

Based on our analysis of longitudinal data from the American Bar Association's National Survey of Career Satisfaction/Dissatisfaction, we report on the economic consequences of having a mentor. Specifically, we find that individuals who reported having a mentor in 1984 were more likely (in 1990) to have achieved partner status. However, we find no evidence of any statistically significant link between being a protégé in 1984 and earnings in 1990.

Lankau, M. J., D. S. Carlson, et al. (2006). "The mediating influence of role stressors in the relationship between mentoring and job attitudes." Journal of Vocational Behavior **68**(2): 308-322.

This study investigated the influence of two role stressors-role ambiguity and role conflict-on previously established relationships between mentoring activities-

vocational support, psychosocial support, and role modeling-and prominent job attitudes. Full and partial mediation models were tested with a sample of 355 protégés. Results showed that both role conflict and role ambiguity completely mediated the relationships between psychosocial support and role modeling with job attitudes. There was also support for role conflict as a partial mediator of the relationship between vocational support and job attitudes. Additional analyses revealed that psychosocial support served as a suppressor-variable in this study. Implications for future research and mentoring practice are discussed. (c) 2005 Elsevier Inc. All rights reserved.

Lankau, M. J., C. M. Riordan, et al. (2005). "The effects of similarity and liking in formal relationships between mentors and protégés." Journal of Vocational Behavior **67**(2): 252-265.

A longitudinal study of mentoring dyads was used to investigate the antecedents and consequences of liking in formal mentoring relationships. Demographic and deep-level similarity was examined as antecedents to liking in mentoring relationships. Following this, the association between the degree of liking and reports of mentoring functions provided was examined. Mentors and protégés differed in the similarity characteristics that impacted their perceptions of the mentoring relationship. Results also indicated that mentors' level of liking for protégés was not related to protégés' perceptions of mentoring functions received. Longitudinal data allowed examination of whether early perceptions of similarity predict final evaluations of mentoring functions. Analyses indicate that relationships change over time, further emphasizing the need to examine developmental relationships longitudinally. (c) 2005 Elsevier Inc. All rights reserved.

Lankau, M. J. and T. A. Scandura (2002). "An investigation of personal learning in mentoring relationships: Content, antecedents, and consequences." Academy of Management Journal **45**(4): 779-790.

To examine antecedents and consequences of learning in the context of mentoring relationships, we developed a new measure of personal learning, relational job learning and personal skill development. The presence of a mentor and mentoring functions were found to be antecedents of personal learning. Job satisfaction, role ambiguity, intentions to leave a job (turnover intentions), and actual leaving (turnover) were found to be consequences of personal learning. This study also explored personal learning as a mediator between mentoring functions and organizational consequences. Implications for future research and practice are discussed.

Lapierre, L. M., S. Bonaccio, et al. (2009). "The Separate, relative, and joint effects of employee job performance domains on supervisors' willingness to mentor." Journal of Vocational Behavior **74**(2): 135-144.

The purpose of our study was to further elucidate how employees should behave at work to increase their chances of being mentored by their immediate supervisor. To that end, we experimentally tested how three domains of employee

performance [task performance (TP), organizational citizenship behavior (OCB) targeting the supervisor, and counterproductive work behavior (CWB) targeting coworkers] affect supervisors' willingness to mentor. Each performance domain affected willingness to mentor. OCB had the weakest of the three main effects. Finally, the positive effect of TP was stronger when employees displayed less CWB. © 2009 Elsevier Inc. All rights reserved.

Lark, J. S. and J. M. Croteau (1998). "Lesbian, gay, and bisexual doctoral students' mentoring relationships with faculty in counseling psychology: A qualitative study." Counseling Psychologist **26**(5): 754-776.

This qualitative study investigated lesbian, gay, and bisexual (LGB) doctoral students' mentoring relationships with faculty in counseling psychology. Data from semi-structured interviews with 14 LGB participants was analyzed using a grounded theory approach. After submitting a preliminary description to a peer audit, and a "member check" a final description of these LGB doctoral students' mentoring relationships with faculty was constructed. The description included two interactive LGB-specific contextual themes (safety in the training environment regarding LGB issues and students' level of outness/disclosure regarding sexual orientation) that helped shape three themes regarding LGB students' experience of mentoring relationships (formation, functions, and impact). Seven recommendations for faculty mentors are made based on lire results, and implications for research are addressed.

Lark, J. S. and B. D. Paul (1998). "Beyond multicultural training: Mentoring stories from two White American doctoral students." Counseling Psychologist **26**(1): 33-42.

In the article, "Preparing Anglos for the Challenges and Joys of Multiculturalism", Kiselica (1998 [this issue]) states that he will approach the topic using a deeply personal writing style, even though this is very unusual in professional journal articles. We found his personal style to be refreshing and could easily relate his discussion to many of our experiences of multicultural training. In keeping with Kiselica's storytelling approach, our response to his contribution will take a personal, self-disclosing format. We will start by identifying ourselves. We are two White doctoral students in counseling psychology. We are both 30-something, both natives of the Midwestern United States, and both share a common doctoral chair who has placed a high priority on multicultural issues in our training. One of us is a lesbian woman, the other a heterosexual man. In the course of doctoral studies, we have worked together with our doctoral chair on research and writing on various aspects of cultural diversity and have spent many hours discussing the critical events that have shaped our experiences with multicultural training. We have often commented on the value of telling and hearing one another's stories and are excited to be invited to share those stories here. We decided that we will begin by providing our separate individual stories that further illustrate Kiselica's ideas and conclude by making three additional points about multicultural training based on our own experience.

Larose, S., N. Chaloux, et al. (2010). "Working Alliance as a Moderator of the Impact of

Mentoring Relationships Among Academically At-Risk Students." Journal of Applied Social Psychology **40**(10): 2656-2686.

This study examined the role of the working alliance between teacher mentors and student protégés on protégés' academic functioning. High-risk students (n = 25) participated in an educational program involving a major mentoring component (experimental group) and were matched on academic records, gender, and study program with 25 students who did not participate (control group). Students in the experimental group who agreed with their mentors that their working alliance was productive (i.e., agreement on goals, positive bonding) were more likely than were other mentored students and students in the control group to improve their academic competence, participation in class, tendency to seek help from teachers, and academic perseverance. Results are discussed in line with relationship-based processes operating in mentoring relationships.

Larose, S., D. Cyrenne, et al. (2009). "Personal and social support factors involved in students' decision to participate in formal academic mentoring." Journal of Vocational Behavior **74**(1): 108-116.

In this study, we examined the role of personal and social support factors involved in students' decision to participate in formal academic mentoring. Three hundred and eighteen students completing Grade I I and planning to study sciences in college filled out a questionnaire and were then asked to participate in an academic mentoring program during their first year of college. A total of 150 students agreed to take part in this program (volunteers) and 168 declined the offer (non-volunteers). The overall findings support the hypothesis that academic mentoring is more attractive for some students than others depending on their personality, help-seeking attitudes, academic dispositions, perceived support from friends, and support available during the transition to college. These findings were discussed in light of the different mechanisms proposed by mentoring and social support literatures. Crown Copyright (C) 2008 Published by Elsevier Inc. All rights reserved.

Lawrie, J. (1987). "How to establish a mentoring program." Training and Development Journal **41**(3): 25-27.

Discusses the importance of establishing high-quality mentoring programs in organizations. It is argued that since mentoring occurs constantly, it is in the organization's best interest to foster efficient and meaningful mentor–apprentice relationships. Five components of the training function are described as essential to such relationships: job identification, selection and training of mentors, guidance of apprentices, controlling the quality of the learning, and validating the program. (PsycINFO Database Record © 2012 APA, all rights reserved)

Lean, E. (1983). "Cross-gender mentoring: Downright uptight and good for productivity." Training and Development Journal **37**(5): 60-65.

This article focuses on cross gender mentoring in business enterprises, using the presentation of a hypothetical situation in which a woman joins a corporation. The

hypothetical follows the woman through the selection of a mentor and her subsequent promotion.

Lease, S. H. (2004). "Effect of locus of control, work knowledge, and mentoring on career decision-making difficulties: Testing the role of race and academic institution." Journal of Career Assessment **12**(3): 239-254.

Knowledge of the working world and career locus of control are associated with career decision-making. Racial minorities may experience an external locus of career control and greater career decision-making concerns resulting from limited exposure to mentors or other sources of career information. Access to information may be facilitated by academic setting type, with smaller colleges facilitating career decision-making. The present study explored racial and academic type group differences on career locus of control, career-related mentoring, and work-related knowledge. African American students reported greater work knowledge but a more external locus of control than White students did. Race and type of academic institution did not moderate the relationships between locus of control, work knowledge, and career decision-making difficulties. An external career locus of control was associated with decision-making difficulties; however, White students reported greater career decision-making difficulty. Clinical implications for addressing career locus of control are presented.

Lechuga, V. M. (2011). "Faculty-graduate student mentoring relationships: mentors' perceived roles and responsibilities." Higher Education **62**(6): 757-771.

Scholars have demonstrated that one of the most important factors that graduate students use to ascertain the quality of their educational experience is their relationship with faculty. Research on faculty-graduate student mentoring relationships has provided valuable insights about effective practices that foster the success of graduate students. While these relationships are beneficial to both the mentor and mentee, the literature on faculty-student mentoring relationships primarily has focused either on mentoring relationships with undergraduate students or on specific types of interactions between graduate students and faculty. This article adds to the existing literature by exploring faculty mentors' perceived roles and responsibilities in their mentoring relationships with their graduate students. Data were drawn from interviews with 15 underrepresented faculty members from one research university. Findings reveal that faculty-graduate student relationships can be described by three broad descriptors that characterize participants' roles and responsibilities-faculty members as Allies, Ambassadors, and Master-Teachers.

Leck, J., B. Orser, et al. (2009). "An Examination of Gender Influences in Career Mentoring." Canadian Journal of Administrative Sciences-Revue Canadienne Des Sciences De L Administration **26**(3): 211-229.

This study draws on the Theory of Planned Behaviour to examine the role of gender in the decision to be mentored. Contrary to expectations, men and women employ similar decision criteria in the decision to seek a mentor The primary driver for seeking a mentor was to obtain psychosocial support, including

personal support, acceptance, having a confidant, being trusted and friendship. Men were more likely than women to seek a mentor when they valued increased autonomy. The implications of the findings for protégés, mentors and career development professionals are noted. Copyright (C) 2009 ASAC. Published by John Wiley & Sons, Ltd.

Lee, J. H. and R. E. Nolan (1998). "The relationship between mentoring and the career advancement of women administrators in cooperative extension." Journal of Career Development **25**(1): 3-13.

This paper discusses the responses from 269 women administrators in the Cooperative Extension Service. Interviews with 10 indicated that 47% did not have mentors; 92.6% thought that mentoring was important for professional development; and 85% thought that mentor programs should be voluntary. (SK)

Lentz, E. and T. D. Allen (2009). "The Role of Mentoring Others in the Career Plateauing Phenomenon." Group & Organization Management **34**(3): 358-384.

The purpose of the present study is to investigate relationships between mentoring others, perceptions of career plateauing, and job attitudes. A total of 306 government employees located in the southeastern United States completed surveys (50.08% response rate). Of these, 110 reported experience as a mentor. As expected, the results indicated that mentoring others was associated with more favorable job attitudes, whereas greater job content and hierarchical plateauing was associated with less favorable job attitudes. The results provided mixed support that mentoring others may alleviate the negative consequences associated with career plateauing. Specifically, the results indicated that mentor experience and psychosocial mentoring moderated the relationship for job content plateauing. Similar relationships were not found for hierarchical plateauing. Implications and future research suggestions are provided.

Leppisaari, I. and M. L. Tenhunen (2009). "Searching for e-mentoring practices for SME staff development." Service Business **3**(2): 189-207.

The objective of this article is to consider e-mentoring models applicable for SME staff development. The article examines a study conducted collaboratively between a university of applied sciences and entrepreneurial organization, ascertaining organization members' interest in e-mentoring for professional development. In this Finnish case, entrepreneurs' skill deficits and e-mentoring's possibilities as a learning support are identified, and the practicality and meaningfulness of different e-mentoring forms examined. The results indicate e-mentoring is expected to facilitate support from experienced entrepreneurs in practical professional development. Peer mentoring online was slightly preferred over one-on-one expert e-mentoring.

Lester, P. B., S. T. Hannah, et al. (2011). "Mentoring Impact on Leader Efficacy Development: A Field Experiment." Academy of Management Learning & Education **10**(3): 409-429.

While practitioners and scholars tout the importance of mentorship in leader

development, few studies have empirically determined whether mentoring actually positively impacts a leader's development, and if so, in what ways. In a longitudinal field experiment, we examined how a targeted mentorship program that unfolded over 6 months enhanced the development of protégés' leader efficacy and performance. Results showed that the targeted mentorship intervention increased protégés' level of leader efficacy more than a comparison intervention that was based on a more eclectic leadership education program delivered in a group setting. Leader efficacy then predicted rated leader performance. Both protégés' preferences for feedback and trust in the mentor served as important moderators in contributing to the development of leader efficacy. Findings from this longitudinal field experiment could be used by educational institutions and other organizations to enhance their mentorship programs in content, focus, and evaluation of impact.

Levitt, D. G. (2010). "Careers of an elite cohort of U.S. basic life science postdoctoral fellows and the influence of their mentor's citation record." BMC Medical Education **10**.

Background: There is general agreement that the number of U. S. science PhDs being trained far exceeds the number of future academic positions. One suggested approach to this problem is to significantly reduce the number of PhD positions. A counter argument is that students are aware of the limited academic positions but have chosen a PhD track because it opens other, non-academic, opportunities. The latter view requires that students have objective information about what careers options will be available for them. Methods: The scientific careers of the 1992-94 cohort of NIH National Institute of General Medical Sciences (NIGMS) Kirchstein-NRSA F32 postdoctoral fellows (PD) was determined by following their publications (PubMed), grants (NIH and NSF), and faculty and industry positions through 2009. These basic life science PDs receive support through individual grant applications and represent the most successful class of NIH PDs as judged by academic careers and grants. The sex dependence of the career and grant success and the influence of the PD mentor's citation record were also determined Results: Of the 439 1992-94 NIGMS F32 fellows, the careers of 417 could be determined. Although females had significantly higher rates of dropping out of science (22% females, 9% males) there was no significant difference in the fraction of females that ended up as associate or full professors at research universities (22.8% females, 29.1% for males). More males then females ended up in industry (34% males, 22% females). Although there was no significant correlation between male grant success and their mentor's publication record (h index, citations, publications), there was a significant correlation for females. Females whose mentor's h index was in the top quartile were nearly 3 times as likely to receive a major grant as those whose mentors were in the bottom quartile (38.7% versus 13.3%). Conclusions: Sixteen years after starting their PD, only 9% of males had dropped out of science. More females (28%) have dropped out of science, primarily because fewer went into industry positions. The mentor's publication record does not affect the future grant success of males but it has a dramatic effect on female grant success.

Li, Q., L. Moorman, et al. (2010). "Inquiry-based learning and e-mentoring via videoconference: a study of mathematics and science learning of Canadian rural students." ETR&D-Educational Technology Research and Development **58**(6): 729-753.

This research seeks to (1) establish a feasible development and implementation model for an inquiry-based learning environment with e-mentoring using videoconference, and (2) apply the model to examine its impact on rural students' learning. To achieve these goals, we developed a model of inquiry-based learning with e-mentoring (IBLE) based on CII's inquiry model (Community Informatics Initiative 2009; http://inquiry.uiuc.edu/). We then tested the effectiveness of the IBLE model and reported our work in a rural context. Results showed that IBLE had enhanced students' learning, most significantly on their affective development, including increased motivation, broadened understanding, and augmented career awareness. Implications for design and limitations of the study are also discussed.

Lick, D. W. (2000). "Whole faculty study groups: Facilitating mentoring for school-wide change." Theory into Practice **39**(1): 43-49.

This book explains how to use whole-faculty study groups to get the entire teaching staff working together on one set of organizational goals. Chapter 1 discusses the school reform environment and the potential of whole-faculty study groups to serve as a major change process for improving schools and student learning. Chapter 2 describes the concept and nature of study groups, their strengths and weaknesses, and their ability to serve as vehicles for change and the creation of collaborative work cultures. Chapter 3 differentiates between means and ends, focusing attention on the desired ends (e.g., enhanced student learning and school improvement). Chapter 4 discusses the principle function of the whole-faculty study group approach, which is to effectively manage change and transition of schools and their processes. Chapter 5 addresses the context for schools in which study groups must function, discussing building commitment. Chapter 6 discusses the process for the whole-faculty study group approach, offering 14 study group process guidelines, 14 procedures for creating communication networks and strategies, and 24 study group work time models. Chapter 7 details content as the heart of the study group process. Chapter 8 discusses the team as the key to effectiveness. (SM)

Lindgren, U. (2005). "Experiences of beginning teachers in a school-based mentoring program in Sweden." Educational Studies **31**(3): 251-263.

Even though teacher education has been successful in preparing students for their future profession, the classroom reality can differ greatly from the in-service training. Many novice teachers therefore find the transition from student teacher to in-service teacher overwhelming To support beginning teachers, mentoring programs - where more experienced teachers support novice teachers - have become commonplace in many schools worldwide. In Sweden, mentoring for beginning teachers has been a frequent feature of support since 2001. This study, conducted in Sweden, examines seven novice teachers and the impact the mentoring process had upon them during their first- year teaching. Based on

interviews, it was found that these experienced both professional and personal support from their mentors. The study also showed the significance of observant leaders within the mentorship program following up on the development of the mentor - mentee relationship.

Linnehan, F. (2001). "The relation of a work-based mentoring program to the academic performance and behavior of African American students." Journal of Vocational Behavior **59**(3): 310-325.

Using a sample of 202 African American students from four urban high schools, this study examined participation in a work-based mentoring program in relation to academic performance and behavior. Based on the program's academic goals, the unique characteristics of mentoring programs, and social teaming theory, it was anticipated that participating in the program would be related positively to grades and attendance. Results indicated that participating in the program for more than half the academic year had a significant, positive relation with students' grade point averages and attendance rate's after controlling for their previous-year GPA and attendance. This relation was not significant for those who participated in the program over a shorter period of time. Implications of the results for the career development of African Americans are discussed and areas for future research are identified. © Academic Press.

Linnehan, F. (2003). "A longitudinal study of work-based, adult-youth mentoring." Journal of Vocational Behavior **63**(1): 40-54.

Using a longitudinal design, this study explored the relation of urban high school student attitudes toward school, work, and self-esteem beliefs to work-based mentoring, mentor satisfaction, and employment status. Participants included high school students taking part in a formal work-based mentoring program, students who established informal mentoring relationships at work, students who worked without a mentor, and students who were not employed during the academic year. While there were no significant group differences in the measures at the start of the year, results at the end of the year showed that students in the formal mentoring program believed more strongly that school was relevant to work than those who worked without a mentor. Students with mentors had higher levels of self-esteem than those who did not work. Students who were highly satisfied with their mentors had higher levels of self-esteem and believed more strongly that school was relevant to the workplace than students who did not work. The implications of these results are discussed and future research areas are identified. © 2003 Elsevier Science (USA). All rights reserved.

Linnehan, F., C. Weer, et al. (2005). "African-American students' early trust beliefs in work-based mentors." Journal of Vocational Behavior **66**(3): 501-515.

Using an experimental design with a sample of African-American high school students (n = 94), this study examines the determinants of students' initial trust beliefs about adult mentors. Consistent with the model of initial trust formation, results indicate that both structural assurance beliefs and youth dispositions toward trust were positive, significant predictors of the belief in an adult mentor's

benevolence, honesty, competence, and predictability. Mentor selection procedures were not related to any of the trust beliefs. Ethnic identity of the student was found to moderate the relation between two of these beliefs (competence and predictability) with racial similarity of the mentor and student. Contrary to expectations, African-American students with low ethnic identity believed that a White adult mentor would be more competent and predictable than students with high ethnic identity. Implications for work-based, adult-youth mentoring programs and future research are discussed. © 2004 Elsevier Inc. All rights reserved.

Lock, N. D. and M. Spear (1997). "Student teachers in primary schools: the views of mentors and head teachers." Educational Studies **23**(2): 253-261.

Four year initial teacher education courses have recently undergone radical reform, in particular in relation to the time that students spend in schools. Through the introduction of mentorship programmes, teachers have become very much more involved in training the students whilst they are in school. How do teachers view the changes that have been introduced? Do they agree with the principles and models that guided the developments? Head teachers and class teachers who acted as mentors for students from the University of Reading have supplied some answers. They are very committed to the model of student learning upon which the mentorship program is built, the belief that schools and the university must work in partnership to implement and further develop the mentorship program and the view that schools need to adopt a whole school approach to their involvement in initial teacher education. These findings indicate that the teachers agree with the underlying principles that guided the development of the mentorship program in which they are involved and they are supportive of the resulting.

Locke, M. and T. Locke (2012). "Introducing a mentor into a children's composition project: Reflections on a process." Thinking Skills and Creativity **7**(1): 8-20.

This article reports on a case study where a professional musician was assigned to a primary school as mentor in a project where 14 primary-aged children, with their teacher's direction, were involved in the composition of a piece of music that would act as prologue to the school's major production. The researchers were interested in aspects of the composition project that appeared to develop student's compositional skills and motivation and how the mentor might-exercise his role in the composition project alongside the teacher, who was the school's music specialist. A range of data was analyzed: classroom observations, emails, questionnaires, and one-on-one and focus group interviews. Findings suggested that the involvement of the mentor was well received by the pupils and that the mentor and teacher complemented one another in their enactment of both pedagogical and compositional roles. Students enjoyed a high sense of success in the production of their composition. Student learning was highly variable and a range of activities and processes was identified by students as contributing to their learning. © 2011 Elsevier Ltd. All rights reserved.

Lofmark, A., A. Morberg, et al. (2009). "Supervising mentors' lived experience on supervision in teaching, nursing and social care education. A participation-oriented phenomenological study." Higher Education **57**(1): 107-123.

Research concerning the supervisor role in separate educational programmes has been undertaken, but cross-professional studies are few. The aim of this study was to explore the lived experience of supervising mentors in Sweden during the practice-based, off-campus sections of the education in teaching, nursing, and social care. The study used a participatory phenomenological approach in which four researchers and nineteen supervising mentors worked together in the research process that was accomplished in four different phases. The data collecting method used was interview. The results constituted a main essence entitled "Struggle of power and control of professional quality enhancement" built upon four themes: "Constitutes a motivating force", "Feelings of responsibility", "Feelings of frustration" and "Wishes for alteration". Conclusions from the study are that communication information and contact between the professionals in the fields and university teachers need to be strengthened to keep up supervising mentors' motivating force and to give them support.

Lofstrom, E. and E. Eisenschmidt (2009). "Novice teachers' perspectives on mentoring: The case of the Estonian induction year." Teaching and Teacher Education **25**(5): 681-689.

This study explores Estonian novice teachers' perspectives on relationships with mentors and experiences of mentoring and mentors' tasks during their first year of teaching. The induction year with mentoring as one of the support structures was introduced into Estonian teacher education a few years ago. Experiences indicate that this is a valuable support, but there are areas of mentoring that need to be developed. The data are based on thematic interviews with sixteen novice teachers in the second half of their first year of teaching, i.e. the induction year. A content analysis revealed that the novice teachers experienced support for personal development and professional knowledge development, feedback, collegiality, reciprocity of the relationship, mentor availability and mutual trust as components of the mentor-mentee relationship. The study identified undeveloped potential in mentoring related to three main areas: 1) facilitation of reflection, 2) mentor training, and 3) integration of mentoring into the school community as a whole. The last area also includes matters pertaining to socialization and school leadership. (C) 2008 Elsevier Ltd. All rights reserved.

Loizou, E. (2011). "The diverse facets of power in early childhood mentor-student teacher relationships." European Journal of Teacher Education **34**(4): 373-386.

The aim of this study was to describe the diverse experiences of early childhood student teachers and mentors during the teaching practicum over the period of one semester, and trace power aspects within the relationship of 20 dyads. Data collection included repeated entries within a reflective journal, following specific

guiding questions. The data were analyzed using patterns of common reference to relationship issues. Findings of the study identified trends of power that present a powerful mentor and an empowered student teacher in relation to practicum issues. Both parties exhibited powerful behavior in different situations, suggesting that a healthy professional relationship allows for parallel contribution. Thus, when considering teaching practicum for student teachers and programmes for mentors, an elaborated discussion on the diverse facets of power should take place.

LoSciuto, L., A. K. Rajala, et al. (1996). "An outcome evaluation of across ages: An intergenerational mentoring approach to drug prevention." Journal of Adolescent Research **11**(1): 116-129.

The goal of Across Ages is to demonstrate the effectiveness of a comprehensive, intergenerational mentoring approach to drug prevention for high-risk middle school students. The core of the project is the involvement of older adults (55+) as mentors to the students. Older mentors help children develop the awareness, self-confidence, and skills they need to resist drugs and overcome overwhelming obstacles. In addition to mentoring, the project engages students in community service activities that benefit frail elders, provides a classroom-bared life skills curriculum and offers workshops to parents. The project targets sixth-grade students attending three public middle schools in Philadelphia's most stressed neighborhoods and has served 562 children during the first 3 project years. The evaluation results support the initial hypothesis that the multifaceted intervention approach would result in more positive changes in student knowledge, attitudes, and behavior concerning substance abuse and related life skills and that those whose mentors were most involved with them would fare even better.

Loureiro-Koechlin, C. and B. Allan (2010). "Time, space and structure in an e-learning and e-mentoring project." British Journal of Educational Technology **41**(5): 721-735.

This study focuses on a project, EMPATHY Net-Works, which developed a learning community as a means of encouraging women to progress into employment and management positions in the logistics and supply chain industries (LaSCI). Learning activities were organized in the form of a taught module containing face-to-face and online elements and e-mentoring with successful professional women in the LaSCI. In this particular research, we have used structuration theory, a social theory that concentrates on the relationships between human agency (micro-level) and social structures (macro-level). We used structuration as an analytical tool to help us understand what happened within the project e-learning and e-mentoring processes. Our analysis suggests that there were two factors that influenced the way project participants carried out their learning activities: the first one being the issue of absence and presence in online environments, and the second one the issue of time frame changes for online users.

Lyons, B. D. and E. S. Oppler (2004). "The effects of structural attributes and demographic characteristics on protégé satisfaction in mentoring programs." Journal of

Career Development **30**(3): 215-229.

This study examined whether the structural attributes of a formal mentoring program and/or certain demographic characteristics of participants in the program influence protégé satisfaction. Protégés, employed in a traditionally male occupation, were sampled from a federal agency's mentoring program. According to policy, the agency attempted to assign protégés to one of three mentors they previously requested. An internally developed measure, designed to assess protégé satisfaction, was distributed after their completion in the program. A total of 565 surveys were received from 1998 to 2000. Results indicated that feedback in the assignment process and the frequency of meetings between the protégé and mentor were more important determinants of protégé satisfaction than racial and gender differences between protégés and the dyad.

Lyons, W., D. Scroggins, et al. (1990). "The mentor in graduate education." Studies in Higher Education **15**(3): 277-285.

The study examined the presence of mentors in and some of their effects on doctoral student education. It was hypothesized that males would be mentored at a significantly higher rate than females; and that a positive overall evaluation of one's graduate experiences at the doctoral level would be positively related to having a mentor. Data were gathered using a survey questionnaire completed by doctoral students. No evidence was found that males are more likely to be mentored than females. It is clear that doctoral students who had experienced a close working relationship with a faculty member had a fuller education than their counterparts who had not.

Madia, B. P. and C. J. Lutz (2004). "Perceived similarity, expectation-reality discrepancies, and mentors' expressed intention to remain in big brothers/big sisters programs." Journal of Applied Social Psychology **34**(3): 598-623.

Studies have begun to document the academic and psychosocial benefits of Big Brothers/ Big Sisters programs for at-risk youth (Rhodes, Grossman, & Resch, 2000). However, investigators have noted a problem with mentor attrition (Meissen & Lounsbury, 1981). The purpose of the current study was twofold. First, we explored the relative importance of specific dimensions of perceived similarity (including similarity in attitudes, interests, race, and personality) as well as mentors' expectation-reality discrepancies in predicting mentors' expressed intention to remain in Big Brothers/Big Sisters programs. Second, we examined a model whereby interpersonal attraction and relationship quality served as mediators of these associations. Our results suggest that perceived similarity in extraversion as well as the discrepancy between mentors' ideal versus actual roles were significant predictors of mentors' expressed intention to remain in the relationship. Relationship quality and interpersonal attraction appeared to mediate these findings.

Maloney, K. and T. Saunders (2004). "Mentoring minority students." Educational Leadership **62**(3): 78-80.

Focuses on the advantages of the Minority Scholars program to minority students initiated by educators at Central High School in Omaha, Nebraska. Discusses details of the program, factors that affect the academic performance of minority students and implications of the program for educators.

Manning, C. and J. Maxwell (2011). "Jaime Mackie: Scholar, mentor and advocate." Bulletin of Indonesian Economic Studies **47**(2): 183-193.

With the passing of Jamie Mackie in April 2011, the intellectual and policy community in Australia lost a scholar, mentor and advocate who charted understandings of Indonesia, Southeast Asia and Australia's relations with Asia for over half a century. Mackie provided effective leadership and quiet inspiration for the development of Indonesian and Asian studies in three of Australia's top universities and throughout the nation. His intellectual contribution ranged across politics, international relations and economics. He urged students, fellow scholars, policy makers and the broader community to remember the historical basis of events in the region, strove to understand what 'makes things tick' in Indonesia and promoted racial tolerance in Australia. His style was low-key and personal, mentoring individuals and bringing together groups of like-minded people. While not dodging difficult issues, he was generally optimistic that sensible and sensitive approaches would enable Australia to live in greater harmony with its neighbors.

Margerum-Leys, J. and R. W. Marx (2004). "The nature and sharing of teacher knowledge of technology in a student teacher/mentor teacher pair." Journal of Teacher Education **55**(5): 421-437.

This study had two purposes. The first was to explore teacher knowledge of educational technology through the lens of three components of Shulman's model of teachers' knowledge-con tent, pedagogical, and pedagogical content knowledge. A second purpose was to investigate the ways in which teacher knowledge was acquired, shared, and used by student teachers and their mentors. By using Shulman's model, a comprehensive depiction of teacher knowledge was constructed and considered. Data for the study were drawn from a 3-month intensive observation period. Results indicate that employment of Shulman's model revealed a set of knowledge derived from and applicable to practice with educational technology. Impact on the field includes a broadening sense of the nature of knowledge of educational technology as well as increased attention to the importance of the student teaching placement and student and mentor teachers roles within that environment.

Martin, D. (1997). "Mentoring in one's own classroom: An exploratory study of contexts." Teaching and Teacher Education **13**(2): 183-197.

This article reports an eighteen-month ethnographic study of mentoring in two primary classrooms. Its initial purpose was to further our understanding of the content and the contexts of field experiences. Videotapes of the student teachers' practices and audiotapes of coaching conversations with their mentors constituted the main data. Results suggest that the contexts of mentoring structured the

student teachers' experience and that the mentors' practices resembled their teaching practices. Copyright (C) 1997 Elsevier Science Ltd.

Martin, J. and J. E. Samels (1993). "Training administrators to serve as student mentors-An untapped resource in retention planning." College and University **69**(1): 14-21.

As growing numbers of institutions consider creative, low-cost methods to raise student retention rates, the use of administrators as student "mentors" to complement the academic advising and mentoring done by faculty members is shown to be an effective approach to strengthening the connections between a first-year student and her or his institution.

McAleer, D. and A. Bangert (2011). "Professional growth through online mentoring: A study of mathematics mentor teachers." Journal of Educational Computing Research **44**(1): 83-115.

This article explores how patterns of engagement and program design impact professional learning and development of mathematics mentor teachers as they participate in an asynchronous mentoring program, e-Mentoring for Student Success (eMSS). In specific, this study: 1) sought to determine if activity level was related to mentors' perceived professional growth; 2) explored the effect of program design on a mentors' perceived growth and over what domains this growth occurred; and 3) sought evidence of the mentor teachers' professional growth in the online dialogue. Results of the study indicate that a mentor's activity level does positively relate to perceived professional growth and that much growth occurs "behind the scenes" and may not be evident in participants' posts. The mentor mathematics teachers reported growth in all assessed domains, particularity in their reflective practices, and attributed their growth to participation in the Content Forum discussion areas more than the other assessed areas.

McAuley, M. J. (2003). "Transference, countertransference and mentoring: the ghost in the process." British Journal of Guidance & Counselling **31**(1): 11-23.

The concepts of transference and countertransference are used in this paper to explore some of the deeper dynamics of the relationship between mentor and mentee; it is hoped that this perspective gives a useful gaze on the mentoring process. Three aspects of the relationship are examined. The first is an exploration of the ambivalent relationship of mentor and mentee to the third party at the meeting-the organization. The second is an examination of the mentoring process where transference theory illuminates aspects of the power, authority, control, affiliation and resistance in the freezing, unfreezing and refreezing aspects of the ebb and flow of transference and countertransference. The third aspect is an examination of the relationship between mentor and mentee with a glance at the narcissistic impulses of altruism and a skeptical brush with the dominant image of unconditional positive regard that is commonly supposed to flow from mentor to mentee.

McCrary, N. E. and J. M. Mazur (2010). "Conceptualizing a narrative simulation to

promote dialogic reflection: using a multiple outcome design to engage teacher mentors." ETR&D-Educational Technology Research and Development **58**(3): 325-342.

Experienced teachers, tasked with mentoring, often find themselves inundated with large amounts of didactic information as they prepare for guiding new interns. In an effort to develop training that would both prepare new mentors and revitalize experienced mentors, a state Educational Professional Standards Board enlisted the help of instructional designers to develop an innovative online course. The focal point of the course design is a narrative simulation, embedded with standards-based information that provides user-selected, multiple outcomes as decision points to support dialogic reflection. Theoretical and practical considerations for conceptualizing this multiple outcome strategy, quality review components and design specifications are discussed.

McDougall, M. and R. S. Beattie (1997). "Peer mentoring at work - The nature and outcomes of non-hierarchical developmental relationships." Management Learning **28**(4): 423-437.

This article considers that peer relationships, which to date have received limited recognition, provide a valuable source of learning for managers and professionals. It contends that this type of learning relationship is particularly appropriate as a response to organizational and social transformation. It proposes the concept of 'peer mentoring', which is based on the principle of mutual involvement for learning and development between two peers. Qualitative research is presented which includes a typology of peer mentoring relationships, and an exploration of the nature of such relationships. The article concludes that this approach to learning has much to commend it to individuals and organizations.

McFarland-Piazza, L. and R. Saunders (2012). "Hands-on parent support in positive guidance: Early childhood professionals as mentors." Australasian Journal of Early Childhood **37**(1): 65-73.

This study reports findings from a follow-up study involving mothers and early childhood professionals who completed participation in a 12-week, hands-on parent education Program in the United States. In this program, mothers learned about positive guidance in a weekly seminar, and additionally practiced implementing positive guidance in an early childhood classroom with the support of an early childhood Professional. After the program ended, 10 mothers and six early childhood professionals completed an online survey about their experiences of, and perspectives on, the role of the early childhood professional as a support resource for parents in positive guidance. Responses were analyzed using the constant comparative method. Themes of 'guidance in action', 'home and classroom environment' and 'relationships' emerged from the data.

McManus, L. and N. Subramaniam (2009). "Ethical evaluations and behavioural intentions of early career accountants: the impact of mentors, peers and individual attributes." Accounting and Finance **49**(3): 619-643.

This study examined how mentoring support, peer influence and individual attributes of early career accountants (ECA) influence their ethical evaluations

and behavioral intentions. Respondents indicate that their evaluation of the seriousness of the ethical conflict is affected by the perceived standard of ethical conduct of their peers, their personal ethical orientation, the extent of ethics education at university, and gender. ECAs' evaluation of a senior colleague's unethical behavior is affected by mentoring support and the perceived standard of ethical conduct of peers. In terms of ECAs' willingness to contact accounting professional bodies for ethical advice, the size of the accounting firm and the extent of their ethics education at university are significant factors. Furthermore, the likelihood of respondents choosing a more ethical decision is correlated with his or her individual ethical orientation and the extent of ethics education at university.

McManus, S. E. and J. E. A. Russell (1997). "New directions for mentoring research: An examination of related constructs." Journal of Vocational Behavior **51**(1): 145-161.

This article describes literature from several domains in organizational psychology and vocational behavior in an attempt to advance theory building and research in the area of mentoring in organizations. Relevant research from leader-member exchange theory, organizational citizenship behavior, social support, and socialization is reviewed in order to understand the theoretical nomological network of mentoring. Propositions for future research on the topic of mentoring are provided. (C) 1997 Academic Press.

McNamara, D. (1995). "The influence of student teachers' tutors and mentors upon their classroom practice- An exploratory study." Teaching and Teacher Education **11**(1): 51-61.

The paper reports an exploratory investigation, undertaken in English primary schools, which examined how student teachers' classroom practice was influenced by the advice and support which was provided for them by their teacher training tutors and their school teacher mentors. Mentors had a considerable influence upon determining the content of the curriculum taught by students (driven by the demands of the National Curriculum) but less on deciding how to teach (methods and approaches) where tutors were also influential. A third group, friends and relatives emerged as an important resource that informed the students' planning and teaching.

McPartland, J. M. and S. M. Nettles (1991). "Using community adults as advocates or mentors for at-risk middle school students – A 2 year evaluation of Project Raise. " American Journal of Education **99**(4): 568-586.

Evaluated the effects of Project RAISE on approximately 60 student outcomes after 2 yrs. of operation. Project RAISE is a multifaceted program featuring outside adults as paid school-based advocates and volunteer one-on-one mentors for at-risk students at 7 middle schools. RAISE helped students make gains in school attendance and in report card marks. However, these gains after 2 yrs. were not sufficient to eliminate the academic risks with which students entered the program. Even after the RAISE benefits, the average student continued to have problems of absenteeism and low grades compared with the typical student in the

same district. RAISE also did not have measurable positive impacts on student standardized test scores or promotion rates. Issues about the implementation and coordination of program components are addressed. (PsycINFO Database Record © 2012 APA, all rights reserved)

Mehta, S. N. (2001). "Why mentoring works." Fortune **144**(1): 119-119.
This article discusses the importance of mentoring as a means of assisting minorities in the corporate world. Companies have tried all sorts of things to improve corporate life for minority employees. Many efforts fail, but one approach has proved so successful that it should be a staple at every concerned firm, mentoring. A study by Korn/Ferry International and the Columbia Business School found that 80 percent of high-level minority executives lack formal mentors to help chart their careers. Nearly a third do not even have informal guides and these are minority executives who have made it. Pat Carmichael of J.P. Morgan Chase has mentored hundreds over her 30-year banking career. He is a consummate networker, introducing her protégés to key executives, especially other minorities.

Meijers, F. (2008). "Mentoring in Dutch vocational education: an unfulfilled promise." British Journal of Guidance & Counselling **36**(3): 237-256.
Between 1998 and 2002 an estimated 250 mentoring programmes were started in Dutch secondary vocational education in order to decrease motivational problems and drop out rates, especially among youngsters from ethnic minorities. Currently there are only two schools in secondary vocational education that include mentoring as part and parcel of their system of guidance and counseling. The vast majority of mentoring programmes do not run for more than two years. The main reason for this seems to be the absence of a vision of mentoring that explains how and why it works - a vision that is shared by mentors, teachers and school managers. In this article, data presented from four different case studies on mentoring in Dutch vocational education showed that the absence of a shared vision resulted in vague, often contradictory, and conflicting perspectives and actions taken by all parties involved in the mentoring scheme. In fact, because no synergy existed, the mentoring programmes had a marginal position in schools and disappeared as soon as external funding stopped.

Meinel, F. G., K. Dimitriadis, et al. (2011). "More mentoring needed? A cross-sectional study of mentoring programs for medical students in Germany." BMC Medical Education **11**.
Background: Despite increasing recognition that mentoring is essential early in medical careers, little is known about the prevalence of mentoring programs for medical students. We conducted this study to survey all medical schools in Germany regarding the prevalence of mentoring programs for medical students as well as the characteristics, goals and effectiveness of these programs. Methods: A definition of mentoring was established and program inclusion criteria were determined based on a review of the literature. The literature defined mentoring as a steady, long-lasting relationship designed to promote the mentee's overall

development. We developed a questionnaire to assess key characteristics of mentoring programs: the advocated mentoring model, the number of participating mentees and mentors, funding and staff, and characteristics of mentees and mentors (e. g., level of training). In addition, the survey characterized the mentee-mentor relationship regarding the frequency of meetings, forms of communication, incentives for mentors, the mode of matching mentors and mentees, and results of program evaluations. Furthermore, participants were asked to characterize the aims of their programs. The questionnaire consisted of 34 questions total, in multiple choice (17), numeric (7) and free-text (10) format. This questionnaire was sent to deans and medical education faculty in Germany between June and September 2009. For numeric answers, mean, median, and standard deviation were determined. For free-text items, responses were coded into categories using qualitative free text analysis. Results: We received responses from all 36 medical schools in Germany. We found that 20 out of 36 medical schools in Germany offer 22 active mentoring programs with a median of 125 and a total of 5,843 medical students (6.9-7.4% of all German medical students) enrolled as mentees at the time of the survey. 14 out of 22 programs (63%) have been established within the last 2 years. Six programs (27%) offer mentoring in a one-on-one setting. 18 programs (82%) feature faculty physicians as mentors. Nine programs (41%) involve students as mentors in a peer-mentoring setting. The most commonly reported goals of the mentoring programs include: establishing the mentee's professional network (13 programs, 59%), enhancement of academic performance (11 programs, 50%) and counseling students in difficulties (10 programs, 45%). Conclusions: Despite a clear upsurge of mentoring programs for German medical students over recent years, the overall availability of mentoring is still limited. The mentoring models and goals of the existing programs vary considerably. Outcome data from controlled studies are needed to compare the efficiency and effectiveness of different forms of mentoring for medical students.

Meister, J. C. and K. Willyerd (2010). "Mentoring Millennials." Harvard Business Review **88**(5): 68-72.

The article focuses on Generation Y, the people who were born between the years 1977 and 1997 and are also known as the Millennials, and on mentoring in business. Research by the authors indicates that the Millennial generation is a socially aware group who want to be engaged with work that is fulfilling and purposeful and that they expect to feel successful in their work. The concept of micro-feedback and its use in coaching employees is discussed. The micro-feedback system, which was developed by executive Susan Hutt, is similar to that of a social networking company called Twitter. The characteristics that Millennials want a boss and a company to have and five things that Millennials want to learn are noted. Examples are given of group, anonymous, and reverse mentoring approaches.

Melville, W. and A. Bartley (2010). "Mentoring and Community: Inquiry as stance and science as inquiry." International Journal of Science Education **32**(6): 807-828.

In this article, we investigate how mentoring relationships founded on inquiry as stance can work to emphasize the conditions that promote the development of teachers of science as inquiry. Drawing on data collected through semi-structured interviews, we have developed two narrative case studies based on the two mentoring relationships that exist between three teachers: Will, Dan, and Cathy. Will entered the teaching profession in 1966, and has acted as a mentor for Dan since he commenced teaching in 1982. Similarly, Dan has mentored Cathy since she commenced teaching in 1999. By following two generations of mentoring relationships, we have gained insights into the potential for inquiry as stance to assist the promotion of the professional development standards of the National Science Education Standards. Our data and analysis clearly point to the need for mentoring relationships to exist within larger inquiry-based communities if they are to produce rapid and sustained changes to teacher practice.

Mendez-Morse, S. (2004). "Constructing mentors: Latina educational leaders role models and mentors." Educational Administration Quarterly **40**(4): 561-590.

This article reports on the mentoring aspects of a qualitative study of 6 Mexican American female school leaders in west Texas. One goal of the study was the identification of any individuals who had been role models or mentors important to the careers of these women. A role model was defined as someone whose characteristics or traits another person would want to emulate; a mentor was defined as someone who actively helps, supports, or teaches someone else how to do a job so that she will succeed. The findings indicate that for the Latina educational leaders in the study, significant role models and mentors, primarily from nonprofessional areas of the women's lives, mitigated the absence of a formal, traditional mentoring relationship. Moreover, the experiences of these school leaders demonstrate that these Latinas assembled or constructed a mentor from varied sources that collectively met their specific needs and priorities.

Merriam, S. (1983). "Mentors and protégés – A critical review of the literature." Adult Education Quarterly **33**(3): 161-173.

Within the last few years, mentoring has emerged as a popular topic in several fields. Articles and talk shows imply that success in life is somehow related to having a mentor or being a mentor. The purpose of this review is to evaluate the extent to which such enthusiasm can be substantiated by research. The literature on mentoring is divided into three sections: the mentoring phenomenon in adult growth and development, mentoring in the business world, and mentoring in academic settings. A concluding section summarizes findings across these three settings, speculates about the relevance of mentoring for adult educators, and suggests avenues for future inquiry.

Mertz, N. T. (2004). "What's a mentor, anyway?" Educational Administration Quarterly **40**(4): 541-560.

The article presents a conceptual model of mentoring designed to distinguish mentoring from other kinds of supportive relationships. Built on the existing literature and a modification of Kram's (1983) distinctions of the functions of

mentoring, the model uses the concepts of intent and involvement as variables for distinguishing and categorizing the bewildering array of relationships and roles referred to as mentoring in the literature.

Miller, L. M., W. A. Thomson, et al. (1989). "Mentorships and the perceived educational payoffs." Phi Delta Kappan **70**(6): 465-467.

The authors of this article advocate for the extension of a mentoring program practiced at Baylor College of Medicine and other organizations in Huston, to national industries. Discussed is the benefit to these organizations and the proposed benefits to the state of mathematics and science education in the US.

Moir, E. and G. Bloom (2003). "Fostering leadership through mentoring." Educational Leadership **60**(8): 58-60.

Describes University of California Santa Cruz New Teacher Center mentor-driven beginning-teacher induction program now in its 15th year. Includes mentor selection, training, and development; mentors as school leaders; and induction programs for beginning principals. (PKP)

Monaghan, J. and N. Lunt (1992). "Mentoring: Person, process, practice and problems." British Journal of Educational Studies **40**(3): 248-263.

This article probes the definition of the term mentor, with respect to the initial teacher training. The role of mentors as a politically sensitive and socially significant factor in on-going changes to the initial teacher training program in the UK is discussed.

Moore, G. R. (1991). "Computer to computer – Mentoring possibilities." Educational Leadership **49**(3): 40-40.

Describes an education professor's efforts to build mentoring relationships with his students by using electronic mail. Students use e-mail to record new skills, knowledge, and techniques they have learned and have come to appreciate the opportunity to address concerns, questions, ideas, or anxieties about assignments without waiting for class or making special appointments. (MLH)

Moore, K. M. (1982). "The role of mentors in developing leaders for academe." Educational Record **63**(1): 23-28.

Mentoring is seen as one way by which a leader or leadership group can assure continuity and pass on to the next generation a particular brand of leadership for the university. Formalizing the mentor process by establishing mentor programs to aid the identification and development of promising administrators is discussed. (MLW)

Mullen, C. A. (2000). "Constructing co-mentoring partnerships: Walkways we must travel." Theory into Practice **39**(1): 4-11.

Offers a theory of collaborative mentorship as a powerful force for professional development and change, describing a co-mentoring project in which professionals across a school-university setting formed a collaborative culture of

learning. The paper describes their partnership support group, discusses how partners suspended distinctions between groups, examines new insights, and highlights the group's goal of joint book publication. (SM)

Mullen, E. J. and R. A. Noe (1999). "The mentoring information exchange: when do mentors seek information from their protégés?" Journal of Organizational Behavior **20**(2): 233-242.

The mentoring literature has focused largely on outcomes associated with having been mentored. This study considered informational outcomes associated with being a mentor, viewing the protégé as a source of information for the mentor and vice versa. Survey data were collected across 17 organizations from 161 mentors and 140 protégés. Mentor characteristics and perceptions and characteristics of the relationship were hypothesized to be related to mentors' seeking information from their protégés. Hierarchical regression analyses indicated that perceived appropriateness of mentor information seeking, perceived protégé competence, vocational mentoring functions and protégé influence contributed significantly to the prediction of mentor information seeking among the mentor sample; hierarchical distance, perceived appropriateness and mentor self-monitoring were significant predictors in the protégé sample. Future research directions are discussed. Copyright (C) 1999 John Wiley & Sons, Ltd.

Murphy, S. E. and E. A. Ensher (2001). "The role of mentoring support and self-management strategies on reported career outcomes." Journal of Career Development **27**(4): 229-246.

This study examined the contribution of self-management strategies to job outcomes for employees involved in mentoring relationships. Participants (N = 158) reported their use of three types of self-management strategies, the level of support functions provided by their mentors, and their job satisfaction and perceived career success. Results showed that individuals who used self-set career goals reported greater job satisfaction and perceived career success; those who engaged in positive cognitions also had higher job satisfaction; and those who used behavioral self-management strategies reported greater perceived career success. Mentoring and self-management strategies each contributed uniquely to satisfaction and perceived career satisfaction. After controlling for amount of instrumental support provided by the mentors, positive cognitions remained predictive of perceived career success, and participation in self-set career goals were related to higher levels of job satisfaction. Moderator analysis showed that the self-management strategies appeared to be useful in the absence of certain types of mentor support.

Murphy, W. M. (2011). "From E-Mentoring to Blended Mentoring: Increasing Students' Developmental Initiation and Mentors' Satisfaction." Academy of Management Learning & Education **10**(4): 606-622.

E-mentoring offers an alternative way to connect individuals with mentors. In my work here, management students were paired with working professionals for a semester to ask questions about the relevance of course content, learn how topics

are applied in practice, and develop rapport. Results indicate that when students and mentors perceived they were similar to each other, students received more vocational and psychosocial support and mentors provided more support. More frequent interaction was also associated with more support and mentors' satisfaction. Relationships in which students received more support were associated with higher levels of career planning, satisfaction with mentors, and intentions to continue the relationship. Similarly, relationships in which mentors provided more support were associated with higher intentions to continue the relationship. Blended mentoring, e-mail plus talking on the phone or meeting face-to-face, increased positive outcomes for both students and mentors. Participation in this experience significantly increased students' propensity to initiate developmental relationships, a critical skill for career development.

Murrell, A. J., S. Blake-Beard, et al. (2008). "Interorganizational formal mentoring: Breaking the concrete ceiling sometimes requires support from the outside." Human Resource Management **47**(2): 275-294.

Our research explores the idea that formal mentoring relationships that cut across traditional organizational boundaries may facilitate positive interactions among an increasingly diverse workforce. We present interview, Web-survey, and focus-group data across an eight-month period from a pilot test of an interorganizational formal mentoring (IOFM) program sponsored by the Executive Leadership Council (ELC). Results indicate that IOFM provides valuable access to mentoring relationships that include trust and psychosocial support, access to legitimate organizational power, and the sharing of social capital across traditional organizational boundaries. The benefits and challenges of this approach to mentoring and diversity are examined. (c) 2008 Wiley Periodicals, Inc.

Myers, D. W. and N. J. Humphreys (1985). "The caveats in mentorship." Business Horizons **28**(4): 9-14.

Focuses on the human resource development advantages of mentoring in an industrial organization in the United States. Discusses the selection process involved in the mentoring process, inclusion of nepotism in the mentor selection problem and effectiveness of mentoring in developing business protégés.

Nash, P. and D. W. Shaffer (2011). "Mentor modeling: the internalization of modeled professional thinking in an epistemic game." Journal of Computer Assisted Learning **27**(2): 173-189.

Players of epistemic games - computer games that simulate professional practica - have been shown to develop epistemic frames: a profession's particular way of seeing and solving problems. This study examined the interactions between players and mentors in one epistemic game, Urban Science. Using a new method called epistemic network analysis, we explored how players develop epistemic frames through playing the game. Our results show that players imitate and internalize the professional way of thinking that the mentors model, suggesting that mentors can effectively model epistemic frames, and that epistemic network analysis is a useful way to chart the development of learning through mentoring

relationships.

Neumark, D. and R. Gardecki (1998). "Women helping women? Role model and mentoring effects on female PhD students in economics." Journal of Human Resources **33**(1): 220-246.

One potential method to increase die success of female graduate students in economics is to encourage mentoring relationships between these students and female faculty members, via increased hiring of female faculty, or having female faculty serve as dissertation chairs for female students. This paper examines whether either of these strategies results in more successful outcomes for female graduate students, using survey information on female graduate students and faculties of Ph.D.-producing economics departments. The empirical evidence provides virtually no support for the hypothesis that initial job placements for female graduate students are improved by adding female faculty members, or by having a female dissertation chair. However, female facility members appear to reduce time spent in graduate school by female students.

Nichols, B. W. and K. P. Singer (2000). "Developing data mentors." Educational Leadership **57**(5): 34-37.

In fall 1997, a Midwestern district initiated changes to enable all stakeholders (especially teachers) to be knowledgeable users of standardized and teacher-made test results. Two major activities were implemented: data notebooks for each school and a data-mentor program to develop school personnel's data-analysis skills. (MLH)

Nielson, T. R., D. S. Carlson, et al. (2001). "The supportive mentor as a means of reducing work-family conflict." Journal of Vocational Behavior **59**(3): 364-381.

The present study investigated the influence of having a mentor on employee perceptions of work-family conflict. Results from a field survey of 502 employees showed that individuals with mentors reported significantly less work-family conflict, particularly family --> work conflict, than those respondents who did not have mentors. Other important findings indicated that a mentor's support of a protégé's efforts to balance work and family demands has significant effects on reducing protégés' work-family conflict and that the role modeling function of mentoring significantly reduces family --> work conflict experienced by protégés. (C) 2001 Academic Press.

Nilsson, P. and J. van Driel (2010). "Teaching together and learning together - Primary science student teachers' and their mentors' joint teaching and learning in the primary classroom." Teaching and Teacher Education **26**(6): 1309-1318.

This paper focuses on what and how primary science student teachers and their mentors learn from planning and reflecting together on each other's science lessons for pupils aged 7-9. The student teachers had had training in scientific knowledge, but only brief experience of teaching. The mentors were well

experienced in the pedagogy of teaching and mentoring, but did not feel confident about their science content knowledge and the teaching of science. Throughout the process of teaching and reflecting together the student teachers and the mentors expressed several specific examples of their joint learning. (C) 2010 Elsevier Ltd. All rights reserved.

Noe, R. A. (1988). "An investigation of the determinants of successful assigned mentoring relationships." Personnel Psychology **41**(3): 457-479.

This study examined the influence of protégé characteristics, gender composition of the mentoring relationship, the quality of the relationship, and the amount of time the protégé spent with the mentor on career and psychosocial benefits gained by the protégé. Protégés were assigned to mentors as part of a development program designed to facilitate personal and career development of educators. An instrument designed to assess the extent to which mentors provide career and psychosocial outcomes to protégés was developed. Protégé gender, job involvement, and career planning activity were related to attainment of psychosocial outcomes. Implications and future directions for research regarding mentoring are discussed.

Noller, R. B. (1982). "Mentoring – A Renaissance of apprenticeship." Journal of Creative Behavior **16**(1): 1-4.

This article explores the apprenticeship model as a precursor of mentoring.

Norman, P. J. and S. Felman-Nemser (2005). "Mind activity in teaching and mentoring." Teaching and Teacher Education **21**(6): 679-697.

Increasingly educators and policy makers recognize that new teachers need help making the transition to independent teaching. One particularly important role mentor teachers can play is to help beginning teachers to focus on students' "mind activity" in order to build on their prior knowledge, experience, and interests, and to promote understanding and meaningful learning. Drawing on interview and observational data collected over two years, this article presents two detailed cases that portray educative mentoring and illustrate how new teachers' personal history and professional school culture influence what they can learn even from serious mentoring. The authors also offer several directions for strengthening induction programs. (c) 2005 Elsevier Ltd. All rights reserved.

O'Brien, K. E., A. Biga, et al. (2010). "A Meta-Analytic Investigation of Gender Differences in Mentoring." Journal of Management **36**(2): 537-554.

This meta-analysis investigates gender differences in mentor- and protégé-reported experience in mentorships as well as career and psychosocial benefits. There are no gender differences in experience as a protégé or protégé receipt of career development, but male protégés report receiving less psychosocial support than female protégés. Furthermore, males are more likely to serve as mentors than females and report giving more career development than female mentors. Conversely, female mentors report providing more psychosocial support than male mentors. In most cases, effect sizes are small and heterogeneous, providing

important implications for future research.

O'Connor, E. A., M. S. Malow, et al. (2011). "Mentorship and instruction received during training: views of alternatively certified teachers." Educational Review **63**(2): 219-232.

Worldwide, teacher shortages have created a demand for certified teachers. Throughout the world, local and national governments are seeking ways to resolve this issue. New York City (NYC), the largest public (i.e. state funded) school district in the United States, addressed the teacher shortage by creating an alternate route to certification called the Teaching Fellows (TFs) program. The purpose of this program is to attract individuals interested in a career change to teaching in low performing, high needs schools. During their two years of training prior to obtaining certification, the TFs receive support from a mentor and a consultant provided by the NYC Department of Education while attending graduate classes to obtain their master's degree in elementary education. A survey was distributed to TFs to examine their impressions of the instruction and mentoring they received during their training, and their plans for staying in the teaching profession in NYC. Information provided by the TFs can help improve this program as well as assist other programs worldwide in developing effective alternative teacher training programs.

O'Neill, D. K. (2011). "Local social capital through e-mentoring: an agenda for new research." Learning Media and Technology **36**(3): 315-321.

This article synthesizes research on social capital, school outcomes, internet use, and volunteering to argue that e-mentoring - which is commonly practiced over long distances - could become a powerful way to build greater cohesiveness in local communities. Realizing this potential will require a larger-scale and more coordinated approach to research and program design, as well as a change in e-mentoring researchers' methods. The payoff for these changes would be greater opportunity for e-mentoring research to contribute to social policy and school effectiveness initiatives.

O'Neill, R. M. and D. Sankowsky (2001). "The Caligula phenomenon - Mentoring relationships and theoretical abuse." Journal of Management Inquiry **10**(3): 206-216.

The authors apply a theoretical lens from the field of psychotherapy to understand a previously unexplored aspect of dysfunctional mentoring relationships: theoretical abuse. The authors review existing research on mentoring and theoretical abuse and discuss ways that theoretical abuse can take place along three dimensions of mentoring relationships: mentor motivation, mentoring behaviors, and protégé growth. They present three typical protégé responses to theoretical abuse, considering these responses within the formalization, hierarchical basis, and power dynamics of mentoring. They discuss psychological consequences of theoretical abuse for the protégé and conclude with a discussion of implications for both research and practice.

Odell, S. J. and D. P. Ferraro (1992). "Teacher mentoring and teacher retention." Journal of Teacher Education **43**(3): 200-204.

Four years after their initial, mentored teaching year, two cohorts of beginning teachers (N=160) were surveyed to determine whether they had remained in teaching and their retrospective attitudes about mentoring. Approximately 96% of those located were still teaching. Of the different types of support they received from their mentors, they most valued emotional support. It is suggested that teacher mentoring may reduce the early attrition of beginning teachers.

Olian, J. D., S. J. Carroll, et al. (1993). "Mentor reactions to protégés – An experiment with managers." Journal of Vocational Behavior **43**(3): 266-278.

One hundred and forty-five managers in the banking industry participated in an experiment exploring the effects of several protégé characteristics on managers′ interest in mentoring the protégés. Responding managers assumed the role of mentor to a potential protégé described in the experimental materials. The impact of protégé performance, mentor/protégé gender similarity and protégé marital status was examined on mentors′ willingness to engage in mentoring behaviors, and expectation of rewards from the relationship. Key findings were that (1) mentors anticipated greater rewards for themselves and were more willing to engage in mentoring behaviors the better the past performance of the protégé and (2) mentors were more willing to engage in career enhancing behaviors on protégés′ behalf and anticipated greater rewards to themselves if male protégés were married and female protégés were single. The paper concludes with a discussion of these findings and implications for the mentoring process.

Olian, J. D., S. J. Carroll, et al. (1988). "What do protégés look for in a mentor – Results of 3 experimental studies." Journal of Vocational Behavior **33**(1): 15-37.

This paper presents results of three experiments designed to examine the determinants of potential protege attraction into a relationship with a mentor. After summarizing mentoring research to date, several exploratory hypotheses were derived regarding the impact of mentor characteristics (gender, age, and integration into the organization's decision-making network), mentor behaviors (level of interpersonal competence), and protégé characteristics (gender, age, and previous work experience) on attraction into a mentoring relationship. A simulation was designed for the experimental task, and a total of 675 subjects participated in the three studies. The main results across the three studies suggested that (1) even relatively small increments in managers' level of interpersonal competence significantly affected protégé attraction to the potential mentor; (2) integration of the potential mentor into the decision-making network of the organization significantly affected protégé attraction only if the potential mentor's interpersonal skills were not strong; (3) while some sex differences in respondent reactions occurred, there was no consistent evidence of preferences for a male mentor among male respondents or preferences for a female mentor among female respondents; (4) younger respondents were more attracted to potential mentors than were older protégés; and (5) respondents' work experience and the potential mentor's age did not have a significant effect on respondent attraction to the manager as mentor. The findings were interpreted in light of the strengths and weaknesses of these studies, and suggestions were made for future research

focusing on the attraction stage of the mentoring relationship.

O' Neill, D. K., R. Wagner, et al. (1996). "Online mentors: Experimenting in science class." Educational Leadership **54**(3): 39-42.

Describes a database and telementoring project that established links between scientists and high school students. Excerpts from e-mail exchanges that show the kind of support a telementor can provide. The authors analyze benefits and costs of the project.

Orth, C. D., H. E. Wilkinson, et al. (1987). "The manager's role as coach and mentor." Organizational Dynamics **15**(4): 66-74.

Discusses the importance and effectiveness of managers who act as mentors/coaches to employees. The role of coaching and creating the proper climate for the mentor–employee atmosphere is described. Emphasis is placed on the importance of observational, analytical, interviewing, and feedback skills. It is suggested that managers need to learn how to be active listeners, paying attention to buried feelings, beliefs, or ideas that the other person is trying to communicate. (PsycINFO Database Record © 2012 APA, all rights reserved)

Ortiz-Walters, R., K. A. Eddleston, et al. (2010). "Satisfaction with mentoring relationships: does gender identity matter?" Career Development International **15**(2-3): 100-120.

Purpose - The purpose of this paper is to examine the effects of gender identity on protégés' satisfaction with mentoring relationships. More specifically, it aims to investigate whether or not a protégé's feminine or masculine identity, by virtue of emphasizing different criteria, roles, and preferences, impacts his or her satisfaction with the performance of a mentor. Design/methodology/approach - Managers and/or professionals, identified by in-career MBA students at large universities in the East, completed surveys to assess relationship satisfaction as a mentoring outcome. Findings - The results of this study indicate that masculine protégés, who strongly identify with their career roles, report being more satisfied with mentors who provide career development support. Conversely, feminine protégés, who measure career success using socio-emotional-based criteria, report being more satisfied with mentors who provide psychosocial support. Research limitations/implications - The study is limited in its generalizability due to the type of sample studied. The sample consisted of managers from a variety of male-dominated occupations. In addition, since the data were self-reported on a single survey, common method bias may also be an issue. Practical implications - Despite limitations, the study implies that assessment of gender identity and related skills can provide organizations with more effective guidance and matching of mentors and protégés to maximize perceived satisfaction on the part of the protégé. Originality/value - Although many studies have investigated a variety of factors that affect mentoring, few have examined the influence of gender identity on the functioning of these relationships.

Ortiz-Walters, R. and L. L. Gilson (2005). "Mentoring in academia: An examination of

the experiences of protégés of color." Journal of Vocational Behavior **67**(3): 459-475.

This study examines the mentoring experiences of African, Hispanic, and Native-American protégés in an academic setting. In doing so we consider whether surface-level and deep-level similarity are related to relationship satisfaction and perceived levels of support. Specifically, we consider whether for protégés of color, having a mentor who is also of color and/or who is perceived as having similar values is positively associated with satisfaction and support. Additionally, we examine from the perspective of those who mentor protégés of color, whether their relationship satisfaction is associated with having a protégé who is similar or different with regards to race/ethnicity and perceived value similarity. Finally, we consider the mediating roles of interpersonal comfort and commitment. Our results indicate that graduate students of color receive more psychosocial and instrumental support from, and are more satisfied with mentors of color. Further, interpersonal comfort and commitment mediate the relationships between surface and deep-level similarity and mentoring outcomes. © 2004 Elsevier Inc. All rights reserved.

Ostroff, C. and S. W. J. Kozlowski (1993). "The role of mentoring in the information gathering processes of newcomers during early organizational socialization." Journal of Vocational Behavior **42**(2): 170-183.

Examined the effects of mentoring in newcomers' information acquisition by surveying 343 university graduates with majors in engineering and management. Ss with mentors tended to rely on observation of others and their mentors, while those without mentors generally relied on observation and co-workers to acquire information about their new setting. The most significant difference between mentored and non-mentored newcomers emerged for the organizational domain; those with mentors were able to learn more about organizational issues and practices compared with non-mentored newcomers. (PsycINFO Database Record © 2012 APA, all rights reserved)

Ozgen, E. and R. A. Baron (2007). "Social sources of information in opportunity recognition: Effects of mentors, industry networks, and professional forums." Journal of Business Venturing **22**(2): 174-192.

Effects on opportunity recognition of three social sources of opportunity-related information (mentors, informal industry networks, participation in professional forums) were investigated. Results indicated that all three sources had direct, positive effects on opportunity recognition by entrepreneurs. In addition, the effects of two sources (mentors and professional forums) were mediated by schema strength, while effects of the third source (informal industry networks) were mediated by self-efficacy. Results are consistent with theories of opportunity recognition that emphasize the role of information and cognitive processes, and suggest that two social sources of information not systematically investigated in previous research-mentors and participation in professional forums-can assist entrepreneurs in identifying opportunities for new ventures. © 2006 Elsevier Inc. All rights reserved.

Packard, B. W. L. (2003). "Student training promotes mentoring awareness and action." Career Development Quarterly **51**(4): 335-345.

Student training is a critical but often overlooked aspect of the mentoring process. Composite mentoring, involving the strategic selection of a diverse set of mentors, is proposed to guide students to take a more active role in their own mentoring experiences. A mentoring program with composite mentoring as a guiding framework was designed and implemented for college women pursuing science careers. The effectiveness of the program is illustrated, and students reported enhanced mentoring and career-related experiences. Implications for advising, career counseling, and mentoring program design are discussed.

Paglis, L. L., S. G. Green, et al. (2006). "Does adviser mentoring add value? A longitudinal study of mentoring and doctoral student outcomes." Research in Higher Education **47**(4): 451-476.

This study of the impact of doctoral adviser mentoring on student outcomes was undertaken in response to earlier research that found (a) students with greater incoming potential received more adviser mentoring, and (b) adviser mentoring did not significantly contribute to important student outcomes, including research productivity [Green, S. G., and Bauer, T. N. (1995). Personnel Psychology 48(3): 537-561]. In this longitudinal study spanning 5 1/2 years, the effect of mentorship on the research productivity, career commitment, and self-efficacy of Ph.D. students in the 'hard' sciences was assessed, while controlling for indicators of ability and attitudes at program entry. Positive benefits of mentoring were found for subsequent productivity and self-efficacy. Mentoring was not significantly associated with commitment to a research career.

Parise, M. R. and M. L. Forret (2008). "Formal mentoring programs: The relationship of program design and support to mentors' perceptions of benefits and costs." Journal of Vocational Behavior **72**(2): 225-240.

This study investigates the relationship of formal mentoring program design elements (i.e., voluntary participation, input to matching, and effectiveness of training) and management support to the benefits and costs perceived by formal mentors. Data were collected from 97 formal mentors from a Midwestern financial institution. Multiple regressions were performed controlling for time as a mentor in the program, hours spent mentoring, and number of protégés. Voluntary mentor participation was positively related to perceiving rewarding experiences and negatively related to being more trouble than it was worth. Input to the matching process was negatively related to nepotism, and perceptions of training effectiveness were positively related to generativity. Finally, perceived management support for the program was positively related to rewarding experience and recognition, and negatively related to generativity and bad reflection. Three supplemental group interviews were conducted to further explore some of the survey findings. Directions for future research and implications for formal workplace mentoring programs as well as mentoring programs in cross-disciplinary contexts are discussed. (C) 2007 Elsevier Inc. All rights reserved.

Parker-Katz, M. and M. Bay (2008). "Conceptualizing mentor knowledge: Learning from the insiders." Teaching and Teacher Education **24**(5): 1259-1269.

This study addresses the question: What constitutes mentors' knowledge? What guides their actions with novices, and how does that shape their use of mentoring knowledge? We addressed these questions by forming conversation groups of 17 urban mentors who met over 6 months. Recursive review of transcripts and observations reveal three findings: mentors focus on which candidates should become teachers, on how pupils' learning is central, and on how mentors and novices can perceive of teaching as a collective responsibility. We connect mentors' knowledge to current teacher education reform efforts, and discuss the significance. (C) 2007 Elsevier Ltd. All rights reserved.

Patton, L. D. (2009). "My Sister's Keeper: A Qualitative Examination of Mentoring Experiences Among African American Women in Graduate and Professional Schools." Journal of Higher Education **80**(5): 510-537.

My Sister's Keeper: A Qualitative Examination of Mentoring Experiences Among African American Women in Graduate and Professional Schools Eight African American women's mentoring experiences in graduate school are examined pertaining to lessons learned, characteristics and behaviors of African American female mentors, challenges with White mentors (male and female), and stereotypical images of African American female mentors. The findings support mentoring as a method of empowerment and uplift.

Perry, N. E., L. Phillips, et al. (2006). "Mentoring student teachers to support self-regulated learning." Elementary School Journal **106**(3): 237-254.

We use the term "self-regulated learning" (SRL) to describe independent, highly effective approaches to learning that are associated with success in and beyond school. Research has indicated that fostering SRL in elementary school children requires a level of instructional sophistication and student awareness that may be beyond the capabilities of beginning teachers. This article presents findings from the first 2 years in a 4-year investigation of whether and how highly effective, high-SRL teachers in a large, diverse, suburban Canadian school district can mentor student teachers to design tasks and develop practices that promote elementary school students' SRL. Across Years 1 and 2, 37 student teachers were paired with 37 mentor teachers in grades K-5 in a cohort that emphasized SRL theory and practice. In general, student teachers remained with the same mentors throughout their yearlong teacher education program and were supported by faculty associates (teachers seconded by the university to supervise student teachers' practice) and researchers who also had expertise in promoting SRL. Researchers observed mentor and student teachers teaching, videotaped professional seminars, and collected samples of student teachers' reflections on teaching, lesson plans, and unit plans. The observational data, which are the focus of this article, indicated that many student teachers were capable of designing tasks and implementing practices associated with the promotion of SRL. In general, student teachers' tasks and practices resembled those of their mentors,

and the complexity of the tasks that mentors and student teachers designed was strongly predictive of opportunities for students to develop and engage in SRL.

Philip, K. (2003). "Youth mentoring: the American dream comes to the UK?" British Journal of Guidance & Counselling **31**(1): 101-112.

This paper examines the ways in which the North American experience has influenced youth mentoring programmes in the UK and focuses on the theoretical assumptions about young people that have underpinned mentoring interventions. A more critical approach to this North American 'legacy' is required if the value of this form of intervention is to be accurately assessed. The paper argues that an over-reliance by mentoring interventions on developmental paradigms has curtailed their capacity to take account of the wider social context in which young people are making their transitions to adulthood. It is suggested that alternative theoretical frameworks that address the complexity and multiplicity of youth transitions hold more promise for understanding and theorizing the role of mentoring in the UK setting. A recent Scottish study of informal mentoring processes attempted to open up these theoretical possibilities by using a framework that recognized young people as active participants and agents. This study revealed that a range of models of mentoring might be in place within informal mentoring relationships. The paper argues that findings from this study demonstrated a need for a more critical approach to the 'classic notion' of mentoring as exclusively a one to one relationship between an adult and a young person. Since mentoring is now a highly popular form of intervention with 'socially excluded' young people these questions about the theoretical base for the concept require urgent attention.

Philip, K. and L. B. Hendry (2000). "Making sense of mentoring or mentoring making sense? Reflections on the mentoring process by adult mentors with young people." Journal of Community & Applied Social Psychology **10**(3): 211-223.

This paper sets out to look at the processes of mentoring from the perspectives of adult mentors who were interviewed as part of a wider study of young people's perceptions and understandings of informal mentoring processes. It seeks to clarify the processes of mentoring within the context of the 'risk society' by posing the question, how do young people and mentors perceive these processes? What do mentors get out of the mentoring relationship? Findings from a qualitative study of informal mentoring relationships are drawn on to suggest that the mentors perceive the experience of being identified as a mentor and the processes of mentoring in highly positive terms. It is argued that this provides a form of 'cultural capital for mentors' in helping them to make sense of the challenges and dilemmas they face as adults. It is concluded that this finding has important implications for the design of mentoring interventions with young people. Copyright © 2000 John Wiley & Sons, Ltd.

Phillips-Jones, L. (1983). "Establishing a formalized mentoring program." Training and Development Journal **37**(2): 38-42.

Formal mentoring programs encourage the mentors to provide their mentees with advice on career goals and advancement strategies, instruction in technical as well as social-managerial skills, visibility and exposure, counseling about work-related or personal problems, encouragement, confrontation, and actual opportunities to perform the new skills that are acquired. A review of several mentoring programs revealed 10 features critical for success. These include insuring that top management supports the program, making the program part of a larger career development or management training effort, and preparing for potential challenges. (PsycINFO Database Record © 2012 APA, all rights reserved)

Pohlman, C., L. B. Hoffman, et al. (1998). "Utilization of school-based professional services: An exploratory analysis of perceptions of mentor teachers and student teachers." Journal of Educational and Psychological Consultation **9**(4): 347-365.

In this study we explored beliefs and experiences that may influence teachers in their decision making about use of related services, including school psychological services. Qualitative data were collected from 13 undergraduate elementary education majors and their 13 mentor teachers through individually administered semi-structured interviews addressing perceptions of classroom challenges, readiness to respond to challenges, problem-solving training, and knowledge of available related services. Response themes suggested that teachers generally did not feel responsible for problems but did feel responsible for solutions, which represents a compensatory attribution model. Teachers reflected a willingness to ask for support. However, school psychologists were viewed as largely inaccessible and operating within narrow roles, suggesting a need for improved marketing of school psychological services.

Poldre, P. A. (1994). "Mentoring programs – A question of design." Interchange **25**(2): 183-193.

Mentoring programs have been advocated for a variety of higher educational settings, including medical education. Reviewing the literature suggests that consensus is lacking on definitions of mentoring, resulting in difficulties with evaluation of mentoring programs. This article describes a systematic approach to designing a mentoring program for medical students that addresses questions of goals, mentor functions, mentor selection, preparation and matching to protégés, and evaluation of mentoring programs. Student participation in all phases of program design and implementation is emphasized.

Pollock, R. (1995). "A test of conceptual models depicting the developmental course of informal mentor-protégé relationships in the work place. " Journal of Vocational Behavior **46**(2): 144-162.

The initial step in assessing conceptual models of the developmental course of mentor-protégé relationships (MPRs) was completed in this cross-sectional study that assessed protégés' retrospective accounts of their mentors' behaviors during their work relationship. Respondents were 138 protégé and 218 non-protégé

middle- and upper-level managers from a broad range of industry. Respondents completed a survey which measured their perceptions of the frequency with which their superior provided career and psychosocial functions over the course of the work relationship. The analyses focused on the presence and types of functions displayed during the early, middle, and late parts of the MPR, as well as on their frequency. The results were consistent with Missirian (1982) and provided some support for aspects of Kram's (1983) model. Little support was found for Phillips' (1977) model. (C) 1995 Academic Press, Inc.

Poteat, L. F., K. M. Shockley, et al. (2009). "Mentor-protégé commitment fit and relationship satisfaction in academic mentoring." Journal of Vocational Behavior **74**(3): 332-337.

Based on a sample of students and their faculty mentors, this study examined how the fit between mentor and protégé levels of commitment is associated with both partners' relationship satisfaction. Mentoring dyads were classified into groups according to fit between partners' commitment, and relationship satisfaction was compared across groups. Overall, results provided partial support for our hypothesis that mentors and protégés report greatest satisfaction when commitment levels are mutually high. Specific results varied depending on the source of reported commitment levels (i.e., mentor vs. protégé reports). Implications are discussed in terms of the importance of both mentor and protégé commitment. (c) 2009 Elsevier Inc. All rights reserved.

Prince, S. R. (2004). "The magic of mentoring." Educational Leadership **61**(8): 84-86.

This article describes the impact of a mentoring program by Parklawn Elementary School in Fairfax County, Virginia on its students via describing the following: structure of the program, giving an overview of what mentors do during their visits to the school and describing the significance of mentoring programs to students, according to research.

Raabe, B. and T. A. Beehr (2003). "Formal mentoring versus supervisor and coworker relationships: differences in perceptions and impact." Journal of Organizational Behavior **24**(3): 271-293.

Formal mentoring programs in two companies were examined regarding (1) the extent to which mentees and mentors agreed on the nature of the mentoring relationships and (2) the extent to which dimensions of mentoring relationships were related to outcomes for the mentees, compared with the extent to which dimensions of supervisory and coworker relationships were related to the same outcomes: job satisfaction, organizational commitment, and turnover intentions. Mentors were at least two hierarchical levels above the mentee, and both were part of the companies' formal mentoring program. Sixty-one pairs of mentors and mentees participated. Overall, there was little agreement between mentees and mentors regarding the nature of the mentoring relationship. Furthermore, the mentoring relationship was not related to mentee outcomes, while supervisory and coworker relationships were. It is suggested that, if one desires to affect job satisfaction, turnover intentions, and organizational commitment, mentoring

functions may be best performed by supervisors and coworkers rather than assigned formal mentors from higher up in the organizational hierarchy. Copyright © 2003 John Wiley Sons, Ltd.

Ragins, B. R. (1997). "Antecedents of diversified mentoring relationships." Journal of Vocational Behavior **51**(1): 90-109.

This article uses a multilevel framework to explain the development of diversified mentoring relationships. The framework incorporates organizational, interpersonal, and individual levels of analyses. Antecedents of informal diversified mentoring relationships are examined using a dyadic approach. Research propositions are offered and organizational implications are discussed. (C) 1997 Academic Press.

Ragins, B. R. and J. L. Cotton (1993). "Gender and willingness to mentor in organizations." Journal of Management **19**(1): 97-111.

We investigated differences in willingness to mentor among men and women in three organizations. When controlling for gender differences in factors relating to decisions to mentor (age, rank, tenure, and mentorship experience), women expressed equivalent intentions to mentor as men, even though they anticipated more drawbacks to becoming a mentor. Additionally, individuals with prior experience in mentoring relationships, either as a protégé or as a mentor, reported greater willingness to mentor than individuals lacking mentorship experience.

Ragins, B. R., J. L. Cotton, et al. (2000). "Marginal mentoring: The effects of type of mentor, quality of relationship, and program design on work and career attitudes." Academy of Management Journal **43**(6): 1177-1194.

Employing a national sample of 1,162 employees, we examined the relationship between jab and career attitudes and the presence of a mentor, the mentor's type (formal or informal), the quality of the mentoring relationship, and the perceived effectiveness and design of a formal mentoring program. Satisfaction with a mentoring relationship had a stronger impact on attitudes than the presence of a mentor, whether the relationship was formal or informal, or the design of a formal mentoring program.

Ragins, B. R. and D. B. McFarlin (1990). "Perceptions of mentor roles in cross-gender mentoring relationships." Journal of Vocational Behavior **37**(3): 321-339.

Survey data from 181 protégés in three organizations were used to compare perceptions of mentor roles in cross- and same-gender mentoring relationships. When controlling for differences in prior experience with mentors, organizational level, and other demographic variables, perceived mentor roles were not influenced by either mentor or protégé gender. Significant gender interactions were found, however, for role modeling and social roles. Cross-gender protégés were less likely than same-gender protégés to report engaging in after-work, social activities with their mentors. In addition, compared to other gender combinations, female protégées with female mentors were more likely to agree with the idea that their mentor served a role modeling function. Implications and

areas for future research are discussed.

Ragins, B. R. and T. A. Scandura (1997). "The way we were: Gender and the termination of mentoring relationships." Journal of Applied Psychology **82**(6): 945-953.

The relationship between gender and the termination of mentoring relationships was assessed in a matched sample of 142 male and female ex-protégés. Counter to prevailing assumptions, when gender differences in rank, salary, tenure, and other demographic and organizational variables were controlled, women did not differ from men in the number or duration of prior relationships or in their reasons for terminating the relationship.

Rajuan, M., D. Beijaard, et al. (2010). "The match and mismatch between expectations of student teachers and cooperating teachers: exploring different opportunities for learning to teach in the mentor relationship." Research Papers in Education **25**(2): 201-223.

This study focuses on 20 mentoring pairs in an Israeli teacher training program in order to determine in which ways matched and mismatched expectations of the role of the cooperating teacher between student teachers and cooperating teachers contribute to different opportunities for learning to teach. Perceptions of learning reported in student teachers' pedagogical journals were analyzed according to two category systems based on different orientations to teaching and the concepts of support and challenge, and compared to the initial expectations of the cooperating teachers and the student teachers. We found that matched expectations between student teachers and cooperating teachers explained a high degree of support in student teachers' perceptions of learning to teach, whereas mismatched expectations explained a high degree of challenge. We also found a third pattern of expectations that was neither matched nor mismatched, but mixed, in terms of support and challenge in a wide range of orientations to teaching. The conclusion of this study is that the mixed pattern provides opportunities for optimal learning. Based on the findings, we make some recommendations for supervision of participants of mentoring relationships in practicum programmes.

Ralph, E. G. (2000). "Aligning mentorship style with beginning teachers' development: Contextual supervision." Alberta Journal of Educational Research **46**(4): 311-326.

Contextual Supervision (CS), a developmental mentoring model recently designed, applied and refined in a teaching internship setting in Western Canada, has been shown to be useful in providing guidance to the supervision of teacher-interns during their extended practicum. The present study tin which the author was a participant-observer) provides further qualitative and quantitative evidence that illustrates the effectiveness of Cs in guiding practicum supervisors in the task of helping beginning teachers to develop their instructional skills. It also suggests that the CS model can prove useful in supervisory practice with developing practitioners in a variety of instructional settings.

Ramaswami, A. and G. F. Dreher (2010). "Dynamics of mentoring relationships in India: A qualitative, exploratory study." Human Resource Management **49**(3): 501-530.

To supplement the extant mentoring literature that has taken a predominantly

Western/U.S. perspective, the present study examined the nature of mentoring relationships in a highly power-distant and collectivistic culture such as India. Twenty-nine Indian masters of business administration (MBA) students participated in a qualitative study (using in-depth interviews) regarding Indian conceptualizations of mentors, the dynamics of mentoring relationships, their mentoring experiences in India, and the practice of mentoring as a career management tool. Content analysis revealed that while some aspects of mentoring seem culturally invariant, other aspects might be influenced by careers and socio-cultural contexts. The findings are discussed from relational and cultural perspectives with theoretical and practical implications for cross-cultural management and human resource practice. (C) 2010 Wiley Periodicals, Inc.

Ramaswami, A., G. F. Dreher, et al. (2010). "The Interactive Effects of Gender and Mentoring on Career Attainment: Making the Case for Female Lawyers." Journal of Career Development **37**(4): 692-716.

The moderating effects of biological gender on the relationships between mentoring and career attainment were explored among legal professionals. Research results indicated that male and female lawyers were equally likely to have senior male mentors. However, senior male mentors were associated with higher career attainment only for female lawyers. Compared to male lawyers with senior male mentors, female lawyers with senior male mentors had higher compensation, higher career progress satisfaction, and were more likely to be partners or senior executives. The authors highlight the importance of simultaneously considering mentor gender and position, when studying the role of mentoring and gender in career attainment, contributing to the literature on the career development of women in the legal profession and in male-dominated professions, in general.

Ramaswami, A., G. F. Dreher, et al. (2010). "Gender, mentoring and career success: The importance of organizational context." Personnel Psychology **63**(2): 385-405.

This study examines the moderating effects of protégé sex and organizational context on relationships between senior-male mentors and objective and subjective career outcomes among midcareer managers and professionals. Extending signaling theory, and using a 3-way interaction, we found that associations between senior-male mentoring, cash compensation, and career progress satisfaction were greatest among women working in male-gendered industries. By contextualizing the protégé sex-by-mentoring interaction and by considering key mentor attributes, the results of this study provide important insights into where, why, and for whom access to a senior-male mentor is related to career success and contribute to building more complete models of the career attainment process.

Rawlins, M. E. and L. Rawlins (1983). "Mentoring and networking for helping professionals." Personnel and Guidance Journal **62**(2): 116-118.

Provides an overview of mentoring and networking and encourages helping professionals to explore the literature and processes of mentoring and networking

to use and extend these ideas as they work with students and clients toward life goals. (JAC)

Reich, M. H. (1985). "Executive views from both sides of mentoring." Personnel **62**(3): 42-46.

Reich, M. H. (1986). "The mentor connection." Personnel **63**(2): 50-56.
This article focuses on the nature and extent of the relationship between female protégés and their mentors. Results of a study of male executives concerning the nature of mentor assistance, benefits and drawbacks of the mentor relationship, the special nature of women's mentoring, and mentoring contributions to career advancement are reported. (CT)

Reid, D. and L. Jones (1997). "Partnership in teacher training: mentors' constructs of their role." Educational Studies **23**(2): 263-276.
Secondary school teachers, trained as empowered mentors, were asked about their new role 2 years after the introduction of school-based initial teacher training (ITT). Kelly's repertory grid encouraged the development of personal constructs. The mentors demonstrated deep structure constructs which would not have seen are easily recognized by university tutors making relatively brief school visits. It is concluded that the mentors have reached a stage where continued experience in the role will not, per se, lead to improved skills. A number of tensions within the role were highlighted, most of which are inherent in the school-based model, but some of which attach specifically to empowerment. Support for mentors not recognizing such ambiguities is important. Mentor empowerment does appear to be a viable model of mentoring in school-based ITT, bur continued training and changes in the type of support available is necessary. The place of appropriate theory at all stages of professional development was recognized.

Reilly, R. C. and M. D'Amico (2011). "Mentoring Undergraduate University Women Survivors of Childhood Abuse and Intimate Partner Violence." Journal of College Student Development **52**(4): 409-424.
This inquiry describes the role of mentoring for undergraduate women survivors of trauma. It employed a comparative case approach. Interviews elicited stories from participants reflecting the role mentors have played in their life course and educational experiences. Four major themes emerged: Fantasy mentors, mentor as mirror, mentor as nurturer and supporter, and mentor as the embodiment of a profession. Issues of women's identity were particularly salient to these themes. Deviant cases provided an opportunity to reexamine the limits of the data and exhibited themes of self-reliance or seeing mentoring as controlling. Implications for mentoring women in higher education are discussed.

Rhodes, C. (2006). "The impact of leadership and management on the construction of professional identity in school learning mentors." Educational Studies **32**(2): 157-169.
This paper explores the perceptions of school learning mentors with respect to

their professional development and emerging professional identity. Although tentative, the emergence of two distinct professional identities is reported in this study: first, an instrumental technical identity characterized by compliance; and second, a creative professional identity characterized by an active involvement in the creation of one's own professionality. Emerging differences in identity appear to be influenced by feelings of security in school learning mentors' role definition and sense of purpose and by the power differential they perceive between themselves and qualified teaching staff. The findings have implications for the present workforce remodeling agenda in England and Wales, intended, in part, to facilitate the work of teachers via greater professionalization of learning support assistants. It is suggested that the leadership and management of schools hosting learning mentors and other learning support assistants should further consider their approach to the professionality of this important group of workers if frustrated identity claims, dissatisfaction, poor morale and their exit from the education service is to be avoided.

Rhodes, J., B. Liang, et al. (2009). "First Do No Harm: Ethical Principles for Youth Mentoring Relationships." Professional Psychology-Research and Practice **40**(5): 452-458.

Mentoring programs pair youth who are perceived to be at risk for poor outcomes with volunteers who are trained to provide support. Although mentoring has experienced tremendous growth in recent years, the ethical challenges inherent in relationship-based interventions have been given insufficient attention among researchers and practitioners. Rarely acknowledged is the potential for harm that poorly implemented mentoring relationships can render. To redress this problem, a set of ethical principles for volunteer mentors is presented. They are derived, in part, from the American Psychological Association's (2002) Ethical Principles of Psychologists and Code of Conduct as well as ethical codes that have been formulated to guide other paraprofessionals and volunteers in community settings. A description of these principles and their application to youth mentoring is provided.

Rice, M. B. and R. D. Brown (1990). "Developmental factors associated with self-perceptions of mentoring competence and mentoring needs." Journal of College Student Development **31**(4): 293-299.

Examined the psychosocial development of undergraduate students (N=144) in relationship to their perceived competence, readiness, focus, and choices regarding participation in mentoring relationships. Results showed significant relationships between developmental status and students' self-perceptions of their competence as mentors and their readiness as mentees. (Author/ABL)

Richard, O. C., K. M. Ismail, et al. (2009). "Mentoring in supervisor-subordinate dyads: Antecedents, consequences, and test of a mediation model of mentorship." Journal of Business Research **62**(11): 1110-1118.

We develop a framework to look at mentoring as a consequence of employees'

values and beliefs, as well as to explore its role in determining the employees' attitudes towards their organizations. Based on social exchange theory, we hypothesize that employees' levels of individualism, collectivism, and trust in supervisor influence the level of supervisory mentoring received. Moreover, mentoring influences employees' affective commitment and intention to quit, as well as mediates the relationships between the proposed antecedents and outcomes. Using structural equation modeling to examine these relationships, we find that within supervisor-subordinate dyads, subordinates report more mentoring when they have collectivist personal values and trust their supervisor. Additionally, more mentoring is positively related to subordinates' affective commitment towards the organizations and negatively related to their intention to quit. We also find that mentoring mediate the relationship between both collectivism values and trust in supervisors and both organizational commitment and intention to quit. © 2008 Elsevier Inc. All rights reserved.

Richard, O. C., E. C. Taylor, et al. (2002). "Procedural voice and distributive justice: their influence on mentoring career help and other outcomes." Journal of Business Research **55**(9): 725-735.

The theory on antecedents of mentoring benefits remains in its infancy. To build theory concerning predictors of protégés' career mentoring help, satisfaction with the mentoring relationship, perceived conflict with the mentor, and overall evaluation of the mentor's guidance ability, we recruited 140 employed college students to participate as protégés in a simulated mentoring relationship. We used structural equation modeling to investigate relationships among protégés' perceptions of procedural voice and distributive justice and how they affect all four outcomes. Results generally support our initial theoretical model and illustrate the importance of voice in facilitating positive perceptions of distributive justice as well as personal and organizational outcomes. Implications for future research and practice are offered. © 2002 Elsevier Science Inc. All rights reserved.

Riley, S. and D. Wrench (1985). "Mentoring among women lawyers." Journal of Applied Social Psychology **15**(4): 374-386.

Considerable controversy exists as to both the nature and efficacy of mentoring among women professionals. As noted by Wrightsman, this controversy persists largely because researchers have failed to use a common scientific definition of the concept. In the present research a survey of existing studies was used to set a more stringent criterion of mentoring than that usually employed. Data were then gathered from a sample of women lawyers in the State of Oregon. Results indicated that those meeting the more stringent criterion perceived themselves as more successful and satisfied in their careers than those not meeting it. Those women who said that they had mentors but who did not meet the criterion reported themselves as less successful and satisfied than those who claimed to have a mentor and met the criterion. These results are seen as demonstrating the value of the more stringent criterion as well as the possible value of true mentors to women professionals.

Risquez, A. and M. Sanchez-Garcia (2012). "The jury is still out: Psychoemotional support in peer e-mentoring for transition to university." Internet and Higher Education **15**(3): 213-221.

This study investigates how computer mediated communication (CMC) can sustain nourishing and emotionally enriching peer mentoring relations. A peer electronic mentoring program was implemented in an Irish university to facilitate freshmen's transition to college. A sample of 123 participants (42 mentors and 81 mentees) was evaluated with a combination of mixed methods including a pre-program adjustment scale, online participation records, content analysis of online interactions and end of program interviews. Results reveal that volunteer freshmen experienced greater psychoemotional needs than the general student population. Personal and emotional interactions often developed, especially if the mentoring pair met face-to-face first and the fresher did not have an alternative support network. However, mentors often expected to develop intimate and lasting support relationships while mentees did not always share this expectation. Perceptions of CMC were strongly determined by individual preferences. Implications for e-mentoring programs and Web 2.0 use are discussed. © 2011 Elsevier Inc. All rights reserved.

Roberts, A. and L. Cotton (1994). "Notes on assessing a mentor program." Psychological Reports **75**(3): 1369-1370.

To clarify the literature on mentor programs, self-esteem and grade point average after such a program were assessed for 30 boys and 46 girls in Grade 11 from 2 high schools. Mixed findings were discussed in terms of possible influences.

Robinson, D. M. and T. G. Reio (2012). "Benefits of mentoring African-American men." Journal of Managerial Psychology **27**(4): 406-421.

Purpose - The aim of this study was to investigate the relationship between mentoring, job satisfaction and organizational commitment among African-American males. Design/methodology/approach: An online questionnaire was completed by 359 African-American males in a business setting. Findings: Job satisfaction and organizational commitment were higher for those who were being mentored versus those who were not. The multiple regression results suggested mentoring was a statistically significant predictor of job satisfaction and organizational commitment. Further, the relation between mentoring and organizational commitment was mediated by job satisfaction. Research limitations/implications - Current organizational research is limited, in that it tends to focus on majority culture where findings can be inappropriately generalized to minority groups. Future mentoring research should include more minorities that can provide a new window for interpreting the contributions of minorities to organizational competitiveness. Practical implications: Mentoring programs should be continued and/or expanded upon to reduce the likelihood of poor job satisfaction and organizational commitment for African-American males. Social implications: Organizations through their human resource efforts can contribute to the learning and development of African-American males and other

minorities by designing and implementing quality mentoring programs. Such programs could lessen the likelihood of costly under-performance and turnover. Originality/value: This is one of the relatively few organizational studies designed specifically for a minority group. The results have implications for how human resource professionals and managers might improve mentoring experiences for minorities.

Roche, G. R. (1979). "Much ado about mentors." Harvard Business Review **57**(1): 14-28.
In the arts it is an accepted fact that a young person learns the trade best when studying with a master. In business, too, the importance of the mentor relationship for a young person's development has been documented. What has not been clear is how prevalent that relationship is in business and whether it does add measurably to the success and satisfaction of people at work. In this article, the author, who has surveyed top executives mentioned in the "Who's News" column of the Wall Street Journal in 1977, finds that nearly two-thirds of the respondents had a mentor, that the number of these relationships is growing, and that those who have had them earn more money at a younger age and are happier with their career progress.

Rodgers, A. and V. L. Keil (2007). "Restructuring a traditional student teacher supervision model: Fostering enhanced professional development and mentoring within a professional development school context." Teaching and Teacher Education **23**(1): 63-80.
The purpose of this study was to pilot an alternative student teaching supervision model at a college of education in a US context. In the study, the collaborators used multiple paired dyads to supervise student teachers with multiple supports from college faculty. This study examined how teachers and university faculty planned the use of paired dyads and how participants responded to the innovation. The findings suggest teachers and junior faculty can undertake bottom-up reform within larger systemic constraints. (c) 2006 Elsevier Ltd. All rights reserved.

Rose, G. L. (2003). "Enhancement of mentor selection using the ideal mentor scale." Research in Higher Education **44**(4): 473-494.
Doctoral students seeking faculty mentors have few tools available to assist them. The Ideal Mentor Scale (IMS) is a new measure designed to help graduate students consider the qualities they as individuals most value in a potential mentor. PhD students at 3 different universities (ALS = 82, 250, 380) contributed to the development and cross-validation of the 34-item IMS. Item frequencies indicated that 2 universal qualities were central to graduate students' definitions of a mentor: communication skills and provision of feedback. Principal factor analysis of the IMS indicated that 3 individual differences dimensions reliably under laid graduate students' importance ratings of mentor attributes: Integrity, Guidance, and Relationship. In one sample, Guidance and Relationship were significantly related to student satisfaction with their mentor. The IMS is an assessment tool that could individualize the initiation and maintenance of mentoring relationships, enhance communication, and ultimately improve the satisfaction of students with their doctoral education.

Rose, G. L. (2005). "Group differences in graduate students' concepts of the ideal mentor." Research in Higher Education **46**(1): 53-80.

Graduate students differ in their conceptualizations of mentoring. This study examined the relationship between students' demographic and academic characteristics (age, gender, citizenship, academic discipline, and stage of persistence) and their preferences for three styles of mentoring assessed by the Ideal Mentor Scale (IMS): Integrity, Guidance, and Relationship. Students enrolled in Ph.D. programs at one of two Midwestern Research I Universities (n = 537) completed the IMS, rating the importance of each of 34 mentor attributes on a 5-point Likert type scale. MANCOVA yielded significant differences for demographic but not academic variables: women scored higher than men on Integrity, international students scored higher than domestic on Relationship, and age was inversely related to Relationship scores. No group differences were found on the Guidance scale. These findings indicate that graduate students' perceptions of the ideal mentor are influenced somewhat by major socio-cultural factors, but also suggest that individual differences may play a larger role.

Rose, R. and M. Doveston (2008). "Pupils talking about their learning mentors: what can we learn?" Educational Studies **34**(2): 145-155.

The use of learning mentors to provide additional support to pupils who experience barriers to learning has become a feature of many schools in recent years. Mentoring places learning within a social context and recognizes the necessity to ensure that students feel both comfortable with and in control of the learning process. This paper describes research that sought the views of young people who, having been identified as having social difficulties, had been supported by learning mentors. Their personal interpretation of mentoring and its impact on their lives is discussed and illustrated through use of their own words. Students interviewed demonstrated an ability to rationalize their own situations and behaviors and provide an indication of the important role that learning mentors have played in their lives.

Rotfeld, H. J. (2010). "Adventures in Misplaced Mentoring." Journal of Consumer Affairs **44**(1): 265-270.

As listed in an appendix to this editorial, JCA has published a number of articles and commentaries of cautionary guides for researchers. But a more basic issue comes from lapses in the students' doctoral education, or, as one member of the editorial board once put it, the lost practice of student mentoring which also applies to the lost guidance for new junior faculty.

Rowley, J. B. (1999). "The good mentor." Educational Leadership **56**(8): 20-22.

There are six basic qualities of good mentoring: commitment to the mentoring role, acceptance of beginning teachers, proficiency at providing instructional support, interpersonal effectiveness, skill at modeling continuous learning, and ability to communicate hope and optimism. A sidebar explains the Mentoring Leadership and Resource network. (MLH)

Roysircar, G., G. Gard, et al. (2005). "Development of counseling trainees' multicultural awareness through mentoring English as a second language students." Journal of Multicultural Counseling and Development **33**(1): 17-36.

This study reports the development of trainee multicultural awareness through a content analysis of reflections on mentoring English as second language students. Identified themes show relationships with the Multicultural Counseling Inventory (G. R. Soclowsky, 1996) and White Racial Identity Attitudes Scale (J. E. Helms, 1990). Results suggest that guided experiential components of multicultural training can be effective.

Russell, G. M. and S. G. Horne (2009). "Finding Equilibrium: Mentoring, Sexual Orientation, and Gender Identity." Professional Psychology-Research and Practice **40**(2): 194-200.

The authors explore mentoring relationships in which one or both members are lesbian, gay, bisexual, or transgender (LGBT). They highlight the role of stigma, in its variable presentations, as an important underpinning of these relationships. They argue that explicit attention to stigma, both within the mentoring relationship and beyond, is of value to the mentoring process and outcome. The authors offer a developmental perspective on mentoring needs, and they suggest specific considerations for LGBT and heterosexual mentors of LGBT students.

Russell, J. E. A. and D. M. Adams (1997). "The changing nature of mentoring in organizations: An introduction to the special issue on mentoring in organizations." Journal of Vocational Behavior **51**(1): 1-14.

Although the term "mentor" originated in Greek mythology, it has been only a decade since Kram's (1985) seminal book stimulated significant research on mentoring in organizations. This special issue brings together current empirical research and theory from diverse scholars who have been instrumental in advancing the field of mentoring. We first provide some background on the topic of mentoring and include a brief discussion of the changing nature of mentoring in organizations. Following this, we review the content of the special issue, starting with five research articles and concluding with four papers which describe new directions for theory building. We conclude with a discussion of needed research on mentoring in organizations. (C) 1997 Academic Press.

Salzman, M. (2000). "Promoting multicultural competence: A cross-cultural mentorship project." Journal of Multicultural Counseling and Development **28**(2): 119-124.

This article describes a project designed to increase the multicultural competency of Euro-American graduate counseling students and to serve the interests of Native American students as defined by Native American educators in an urban school district.

Sambunjak, D. and M. Marusic (2011). "Between forwarding and mentoring: a qualitative study of recommending medical doctors for international postdoctoral research positions." BMC Medical Education **11**.

Background: Young scientists rarely have extensive international connections that could facilitate their mobility. They often rely on their doctoral supervisors and other senior academics, who use their networks to generate opportunities for young scientists to gain international experience and provide the initial trigger for an outward move. Methods: To explore the process of informal recommending of young physicians from a small country for postdoctoral research positions in foreign countries, we conducted in-depth interviews with eight senior academics who acted as recommenders and eight physicians who, based on the recommendations of senior academics, spent at least a year working in a laboratory abroad. Interviews were transcribed and analyzed by using the framework approach. Results: The findings showed that recommending can take four distinct forms: 1) forwarding information, 2) passive recommending, 3) active recommending, and 4) mentor recommending. These forms differ in their level of commitment and mutual trust among actors, and possible control over the success of the process. Two groups of recommendees - 'naive' and 'experienced' - can be distinguished based on their previous scientific experience and research collaboration with the recommender. Crucial for the success of the process is an adequate preparation of recommendees' stay abroad, as well as their return and reintegration. The benefits of recommending extend beyond the individual participants to the scientific community and broader society of the sending country. Conclusions: With a sufficient level of commitment by the actors, informal recommending can be a part of or grow into an all-encompassing developmental relationship equal to mentoring. The importance of senior academics' informal contacts and recommendations in promoting junior scientists' mobility should be acknowledged and encouraged by the research institutions and universities, particularly in developing countries.

Sands, R. G., L. A. Parson, et al. (1991). "Faculty mentoring in a public university." Journal of Higher Education **62**(2): 174-193.

A study of the nature and extent of mentoring and other forms of career support among faculty (N=347) found that mentoring was not prevalent. Where occurring, it was mutually negotiated, primarily between persons of the same sex and between assistant and full professors. Four mentor types emerged.

Sanford, K. and T. Hopper (2000). "Mentoring, not monitoring: Mediating a whole-school model in supervising pre-service teachers." Alberta Journal of Educational Research **46**(2): 149-166.

This article offers a case study of a whole-school model for supervising pre-service teachers that is related to the principles of professional development schools (Holmes Group, 1990) and Zeichner's (1992) notions of rethinking student teachers' practicum experience. The article draws on constructivist notions of learning to teach; in particular, reference is made to Vygotsky's (1978) sense of mediating a stimulus where in a social-cultural context a person's knowledge is created, examined, and transformed rather than simply absorbed and transmitted. The case study highlights the particular details of this whole-school model and connects these to five main empirical descriptors that were generated from data

triangulated from pre-service teachers' journals, evaluation forms, group meetings, and correspondence from cooperating teachers, The descriptors show how the whole-school model evolved and how the role of university facilitator shifted from monitoring to mentoring in the teacher preparation process. This change in relationship disrupted the isolating clinical model of supervision where the university facilitator and cooperating teacher, in an uneasy relationship, are perceived by pre-service teachers as having power over them: "telling" the pre-service teacher with little perceived opportunity for negotiation.

Satter, A. M. and D. E. Russ (2007). "Why don't more senior leaders mentor? And how they are mortgaging their company's future in the process." Journal of Management Inquiry **16**(4): 382-390.

Large organizations are facing a pending talent drain when baby boomer generation senior leaders begin retiring over the next 3 to 5 years. As companies scramble to develop and retain their next generation of leaders, many overlook a cost-effective, tried-and-true method for engagement and leadership development mentoring. According to the authors' 2-year in-depth research study with senior American business leaders across 20 different industries, mentoring engages high potentials, helps develop essential "soft" skills (e.g., "navigating the culture"), and sends the message that they are valued. It is unfortunate that many executives choose not to mentor, and they may, according to the authors, be mortgaging the future of their companies in the process. The authors have identified five of the most common excuses cited by senior executives who choose not to mentor (e.g., "It doesn't work") and offer specific strategies to overcome the resistance that senior leaders have about mentoring.

Scaffidi, A. K. and J. E. Berman (2011). "A positive postdoctoral experience is related to quality supervision and career mentoring, collaborations, networking and a nurturing research environment." Higher Education **62**(6): 685-698.

For postdocs to have the best chances of achieving their career goals they need to not only acquire discipline-specific research experience, but also additional generic skills vital for future employment inside or outside academia. They also require access to information and mentoring that will help them strategically plan and make informed decisions about their future. Few studies have examined the variables that impact the postdoctoral experience or research productivity. Thus, a comprehensive survey was conducted to determine whether quality supervision, career mentoring, collaboration, networking and a nurturing research environment makes a positive difference in the experiences and productivity of postdoctoral researchers. Unsurprisingly, the survey revealed that job insecurity and lack of a career structure are ongoing concerns for postdocs. However, a clear association was shown between quality supervision, for example, in conveying the importance of taking responsibility for their future academic career by strengthening their track record, and the number of peer-reviewed publications produced. The findings also suggest that mentoring in non-academic career paths can be greatly improved. The results of this study have guided a research-intensive Australian University to implement initiatives and programs that

enhance the postdoctoral experience. Finally this work raises awareness of the crucial contributions postdocs make to the research output and environment of universities.

Scandura, T. A. (1997). "Mentoring and organizational justice: An empirical investigation." Journal of Vocational Behavior **51**(1): 58-69.

Current perspectives on organizational justice are reviewed and integrated with mentoring theory to develop a new fairness "frame" through which the mentoring process can be viewed. Hypotheses derived from this framework are tested in a sample of 197 managers from Australian organizations. Results indicated that protégés perceived more procedural justice than non-protégés. For those mentored, however, career development, psyche-social, and role modeling functions of mentoring were significantly and positively related to both distributive and procedural justice. Also, mentoring functions made unique contributions to explained variance in protégé career expectations, job satisfaction and organizational commitment, after controlling for organizational justice variables. (C) 1997 Academic Press.

Scandura, T. A. (1998). "Dysfunctional mentoring relationships and outcomes." Journal of Management **24**(3): 449-467.

A comprehensive review of the mentoring literature reveals that unpleasant aspects of mentoring relationships at work have been understudied. This persists, despite evidence that dysfunctions may be occurring in mentoring relationships. A typology of negative mentoring styles is presented. Next, a model of outcomes that may be associated with dysfunctional mentoring is developed to underscore the need to investigate the full range of mentorship in future work.

Scandura, T. A. and B. R. Ragins (1993). "The effects of sex and gender role orientation on mentorship in male dominated occupations." Journal of Vocational Behavior **43**(3): 251-265.

Responses from 608 certified public accountants who had mentors showed that biological sex was not related to mentoring, but gender role orientation was. Those with androgynous sex role orientation reported more mentoring functions than did those with masculine or feminine orientations. (SK)

Scandura, T. A. and R. E. Viator (1994). "Mentoring in public accounting firms – An analysis of mentor/protégé relationships, mentorship functions, and protégé turnover intentions." Accounting Organizations and Society **19**(8): 717-734.

From in-depth interviews with public accounting personnel, Dirsmith & Covaleski [Accounting, Organizations and Society (1985) pp. 149-169] concluded that mentoring exists in large public accounting firms and benefits the mentor, protégé and the firm. Based on a national survey of public accounting employees, the current study uses quantitative data analysis to identify public accounting mentoring functions, their effect on employee turnover intentions, and their association with specific organizational variables (protégé organizational level, protégé gender, mentor's position, and audit firm structure). The study found that

public accounting mentoring consists of three separate functions: social support, career development, and role modeling. Path analysis indicated that employees with lower turnover intentions received more career development support from their mentor and had a partner as a mentor. The level of social support provided by partner mentors tended to be less than that provided by manager mentors. Female protégés, who tended to have managers as mentors, received more social support when their mentor was also female. The role modeling function did not differ across organizational variables. The results of the study indicate that while social support is a key factor in defining the mentoring process for public accounting employees, the career development function is associated with lower protégé turnover intentions.

Scandura, T. A. and E. A. Williams (2001). "An investigation of the moderating effects of gender on the relationships between mentorship initiation and protégé perceptions of mentoring functions." Journal of Vocational Behavior **59**(3): 342-363.

Recent research has suggested that the more the mentor is involved in relationship initiation the greater the benefits that the protégé may receive. No research, however, has examined the impact of protégé gender on the relationship between initiation and mentoring received. The results of this study indicate that male protégés perceived more mentoring than female protégés in protégé-initiated mentorships. Female protégés, however, reported receiving more mentoring than male protégés if the relationship was mentor-initiated or where both mentor and protégé initiated the relationship. Protégés in informal mentorships reported receiving more mentoring than those in formal organizational programs. The findings of this study also indicate that protégés may benefit more from same-sex relationships than cross-sex relationships with respect to role modeling. © 2001 Academic Press.

Scandura, T. A. and E. A. Williams (2004). "Mentoring and transformational leadership: The role of supervisory career mentoring." Journal of Vocational Behavior **65**(3): 448-468.

Leaders may need to serve as mentors to activate transformational leadership and promote positive work attitudes and career expectations of followers. To test this premise, incremental effects of transformational leadership and mentoring over each other were examined using N = 275 employed MBAs. Respondents with supervisory mentors reported receiving higher levels of career mentoring than respondents with non-supervisory mentors. Supervisory career mentoring (SCM) and transformational leadership had incremental effects over each other for job satisfaction. SCM had mediating effects over transformational leadership for organizational commitment and career expectations. Career mentoring by non-supervisory mentors was not associated with career expectations but there were incremental effects with idealized influence and inspirational motivation for job satisfaction and organizational commitment. Implications for the changing role of mentorship in organizations are discussed. © 2003 Elsevier Inc. All rights reserved.

Schaverien, L. and M. Cosgrove (1997). "Learning to teach generatively: Mentor-supported professional development and research in technology-and-science." Journal of the Learning Sciences **6**(3): 317-346.

In a year long, school-based teacher education project, primary school teachers were given workshop- and classroom-based support, including sustained mentoring, as they appropriated a generative heuristic for teaching technology-and-science in their classrooms. The mentor participated in their lessons and recorded her frequent conversations with teachers. Extracts from 3 conversations (of many, spanning 5 months) between 1 teacher and the mentor illustrate this teacher's changing ideas and the mentor's role. The teacher realized that although she preferred to learn generatively, she had been using instructionist approaches in her technology-and-science teaching. These dialogues show how the mentor supported this teacher as she gradually aligned her technology-and-science teaching with the generative style of learning she already valued.

Schmidt, M. (2008). "Mentoring and being mentored: The story of a novice music teacher's success." Teaching and Teacher Education **24**(3): 635-648.

This qualitative study examined the growth of Jelani, a failing novice teacher who successfully received tenure following his third year of teaching. His progress seemed related to the quality of his relationships with different mentors. An unanticipated factor in Jelani's success was his participation in a university-based program for children, where he served, under supervision, as a mentor for two pre-service teachers. In what became a mutually beneficial relationship, Jelani reinforced his new found knowledge and skills and learned to better describe and assess his own teaching. Among those who worked with Jelani, additional reciprocal mentoring relationships developed. © 2007 Elsevier Ltd. All rights reserved.

Schockett, M. R. and M. Haringhidore (1985). "Factor analytic support for psychosocial and vocational mentoring functions." Psychological Reports **57**(2): 627-630.

Eight 50-word vignettes which portrayed either psychosocial or vocational mentoring functions were presented to 144 college students who rated the desirability of each function on a scale of 1 to 7. A principal axis factor analysis with oblique rotation yielded two factors, one on which the psychosocial functions loaded more heavily (and which accounted for 33.4% of the variance) and one on which the vocational functions loaded more heavily (and which accounted for 5.9% of the variance). The results may help researchers formulate different questions about mentoring than the basic questions that have guided prior work.

Schrum, L., M. C. English, et al. (2012). "Project DAVES: An exploratory study of social presence, e-mentoring, and vocational counseling support in community college courses." Internet and Higher Education **15**(2): 96-101.

A FIPSE-funded project was designed to provide support and training to community college faculty electronically and to develop a model to offer innovative, interactive strategies to support their students' academic and career

needs. The goal of the mentoring/coaching program has been to support instructors in their online efforts, provide resources and assistance to students, and create a community of learning for all. The examination of the process was framed and guided by the concept of social presence theory. Data collected included mentors' weekly logs, researcher-generated weekly prompts, and bi-monthly focus groups. All data were analyzed qualitatively using open and axial coding. Results indicate that creating social presence may depend, in part, on having an authentic, clearly defined role. Reflections throughout the process required continuous revisions to the plans. © 2011 Elsevier Inc. All rights reserved.

Schwartz, J. (2012). "Faculty as Undergraduate Research Mentors for Students of Color: Taking Into Account the Costs." Science Education **96**(3): 527-542.

This article is based on the findings of a 2-year study that examined the nature of effective faculty/student undergraduate research (UR) science, technology, engineering, and mathematics (STEM) relationships. The study site was a large urban public college where three fourths of all incoming freshmen receive need-based aid; and although not a historically Black college or university (HBCU), 85% are students of color. The college offers 2- and 4-year STEM degree programs. Utilizing cultural historical activity theory (CHAT) as both a theoretical and methodological framework, this phenomenological study employed semi-structured interviews, written surveys, and member checking to understand four paired faculty/student UR mentoring relationships over 2 years. The findings not only concur with the bulk of UR research, indicating UR's promise for addressing the low enrollment and retention rates of students of color in the STEM disciplines but also raise issues around the emotional, financial, and professional costs to UR faculty. It is these costs that are the focus of this article that concludes with ideas, for university and college administrators and all others concerned, about on how we might support faculty in UR's crucial work toward the goal of retaining students of color in STEM. © 2012 Wiley Periodicals, Inc. Sci Ed 96:527-542, 2012

Schwille, S. A. (2008). "The Professional Practice of Mentoring." American Journal of Education **115**(1): 139-167.

Mentoring of novice teachers has become a prevalent component of programs that help beginning teachers. A conceptualization of mentoring practice that rests on a shared vision of good mentoring, however, needs to be developed so that novice teachers receive more than emotional support or professional socialization. Knowing how to be a good mentor is not necessarily inherent in being a good teacher. How should good mentoring be conceptualized, and what images help shape that conceptualization? This article draws on data from a cross-national study of pre-service and beginning teachers and their mentors to examine these questions. It concludes that, much like teaching, mentoring that is aimed at helping novices learn to teach is a professional practice with a repertoire of skill sets that must be learned over time.

Scott, N. E. (1989). "Differences in mentor relationships of non-White and White female professionals and organizational mobility – A review of the literature." Psychology **26**(2-3): 23-26.

Reviews research on mentorship of minority female professional. Explores and summarizes: types of mentorships; differences in mentorships for minority and White women; who mentors for professional women are; and effects of organizational mobility. Found most mentors were males; minority females were more likely to mentor than Whites; and mentorship aided in opportunity structure for organizational mobility. (Author/ABL)

Seibert, S. (1999). "The effectiveness of facilitated mentoring: A longitudinal quasi-experiment." Journal of Vocational Behavior **54**(3): 483-502.

The initiation of formal mentoring has become a widespread practice in public and private organizations. This paper reports results from a one-year longitudinal quasi-experiment that examined the effectiveness of a formal mentoring program at a Fortune 100 corporation. Employees who participated in the program were compared with a control group who reported never having had a mentor. Results showed that subjects with formal mentors reported significantly higher levels of job satisfaction. While a small to medium effect for participation in the mentor program was observed for organizational commitment, this effect failed to reach statistical significance in the current study. Subjects participating in the mentor program did not differ from their non-mentored counterparts in terms of work-role stress or self-esteem at work. These results suggest that a formal mentor program can have positive effects on individual and organizational outcomes, but its effectiveness may not be as extensive as widely assumed. © 1999 Academic Press.

Selby, J. W. and L. G. Calhoun (1998). "Mentoring programs for new faculty: Unintended consequences?" Teaching of Psychology **25**(3): 210-211.

Formal mentoring Programs for new faculty have grown in recent years. Such programs, although having laudable goals, may have unintended undesirable consequences; in this article, we identify several. If individuals who begin careers as faculty members in psychology are deficient in their competence or in the interpersonal skills needed to proactively seek the help of senior colleagues, then the problem may lie in how doctoral programs prepared them.

Semeniuk, A. and A. M. Worrall (2000). "Rereading the dominant narrative of mentoring." Curriculum Inquiry **30**(4): 405-428.

Mentoring is currently being promoted as an effective means of easing new teachers' transition from pre-service programs to the profession. At the same time it is seen as a way of providing teacher development for those teachers with more experience. Furthermore researchers promote mentoring as a force for change to diminish isolation and promote teacher collaboration. In this article I present an overview-the dominant narrative-of some recent research on formalized mentoring programs in education. Bringing this material together reveals that researchers are virtually unanimous in their enthusiasm for these initiatives. A

dialogue that took place between me and a colleague/friend about what we construed as our mentoring relationship potentially serves as a counter-narrative to this prevalent story. Through an analysis of the educational research and the personal narrative, I suggest that the widely accepted vie rv of mentoring may need to be reread, particularly in relation to language: mentoring's meaning is now imprecise because it is used as an umbrella term for many kinds of affiliations in teaching. In rereading our narrative I argue that my colleague/friend and I did not act as each other's mentor. Rather, our professional association became entwined with the friendship we developed over time. I maintain that by doing a similar rereading of the research on mentoring in education we might find richer and more precise language to describe how we as teachers can assist one another in becoming sophisticated professionals.

Shapiro, E. C., F. P. Haseltine, et al. (1978). "Moving up – Role models, mentors and patron system." Sloan Management Review **19**(3): 51-58.

Increasing effort, time and money are being invested in projects for women. Many are intended to recruit and promote women in traditionally male professions, such as management, science, medicine, dentistry, engineering and architecture. Much emphasis has been placed on “role models” and “mentors” as prerequisites for women’s success. The authors examine these concepts and suggest (1) that role models are of limited effectiveness in assisting women to gain positions of leadership, authority, or power and (2) that mentors are at one end of a continuum of advisory/support relationships that facilitate access to such positions for the protégés involved. The authors conclude that careful consideration of this continuum will lead to better focused and more effective efforts directed at bringing women into positions of leadership and authority.

Shapiro, E. S. and J. Blom-Hoffman (2004). "Mentoring, modeling, and money: The 3 Ms of producing academics." School Psychology Quarterly **19**(4): 365-381.

The program at Lehigh University has been very successful in producing a high percentage of students (42% of all graduates) who have entered academic careers as trainers of school psychologists. This article presents a conceptual model for the three variables that are considered as critical components of why students select an academic career-mentoring, modeling, and money. Results of a survey of the program alumni at Lehigh University are presented. Outcomes of the survey showed significant and substantial differences in the perceptions of the mentoring and modeling process by students who are in academic versus nonacademic careers. Implications for doctoral training programs interested in training students to enter academic careers are discussed.

Shulman, J. H. (2004). "From inspired vision to impossible dream - The dangers of imbalanced mentoring." Journal of Teacher Education **55**(5): 393-406.

This article will present a case study of an unrequited teacher-learning collaboration, an attempt to work with an experienced teacher to redesign his practice in consonance with Fostering a Community of Learners (FCL) principles and practices. The author's purpose in presenting this case will be threefold: first,

to provide a coherent account of a modest attempt to assist an experienced teacher to reform his practice within a school context that was itself at least as traditional as the teacher himself, second, to use this account to illustrate the usefulness of a conceptual framework for representing how teachers learn and think about the essential features of teachers capacities that are the focal points of change; and third, to offer a process analysis of a teacher learning not to engage in a new practice and doing so in an intentional and reflective manner.

Singh, G. (2011). "An online abstract mentoring programme for junior researchers and healthcare professionals." Distance Education **32**(2): 229-242.

Dissemination of findings about the HIV epidemic at international conferences has been dominated by researchers from developed countries working in well-resourced and supported institutions. This has led to exclusionary practices where community healthcare workers and practitioners working in under-resourced contexts have had limited opportunities to share their own experiences. A low focus on research in their working contexts and lack of capacity to produce 'acceptable' research for dissemination at international audiences have exacerbated the exclusion. This article describes how early career researchers and abstract submitters in resource-limited developing countries, particularly in Africa, received online help from experienced volunteer mentors in the Abstract Mentor Programme (AMP), enabling them to share their work at international conferences on the issues of preventing and managing HIV and AIDS.

Singh, R., B. R. Ragins, et al. (2009). "What matters most? The relative role of mentoring and career capital in career success." Journal of Vocational Behavior **75**(1): 56-67.

This study used a career capital framework to compare the relative role of mentoring and three other forms of career capital (human, agentic, and developmental network capital) in predicting career success. Using a three-wave longitudinal design we found that mentoring added value, above and beyond the other forms of career capital, in predicting promotions and advancement expectations. However, although mentoring mattered for career success, it represented just a part of a constellation of career resources that are embedded within individuals and their relationships. Implications for future research are discussed. © 2009 Elsevier Inc. All rights reserved.

Singh, R., B. R. Ragins, et al. (2009). "Who gets a mentor? A longitudinal assessment of the rising star hypothesis." Journal of Vocational Behavior **74**(1): 11-17.

This study assessed the rising star hypothesis, which proposes that individuals who are on the fast track to career success are more likely to gain mentors than others. The study used a sample of employees who had never been mentored and examined the relationship between rising star attributes measured at Time I and the attainment of a mentor a year later. In support of the hypothesis, individuals who were on the fast-track for promotion, had higher advancement expectations, and engaged in more proactive career behaviors were more likely to gain a mentor than individuals lacking these attributes. Implications of these results for the theory, research and practice of mentoring are discussed. © 2008 Elsevier Inc. All

rights reserved.

Smaby, M., T. Peterson, et al. (1994). "Career development consultation skill training by counselors for teacher mentors." Journal of Employment Counseling **31**(2): 83-95.
This article presents a career development consultation skill training program for enhancing the professional growth of beginning teachers by master teacher mentors trained by counselors and counselor educators.

Smith, E. P. and W. S. Davidson (1992). "Mentoring and the development of African-American graduate students." Journal of College Student Development **33**(6): 531-539.
This study describes the level of faculty support and professional development reported by African American students. Mentoring was found to be a significant predictor of development.

Smith, E. R. (2011). "Faculty Mentors in Teacher Induction: Developing a Cross-institutional Identity." Journal of Educational Research **104**(5): 316-329.
Though the knowledge base on mentoring new teachers has grown exponentially in the past 30 years, researchers know less about university involvement in induction, and even less about the role that faculty mentors may play in induction. Drawing on interview, e-mail, and observational data from a yearlong mentoring relationship between a faculty mentor and 7 new teachers, the author examined a faculty mentor's role in supporting beginning teachers. Findings highlight the importance of identity development in assuming a cross-institutional role as a faculty mentor. The transition from teacher educator to teacher mentor requires the development of a mentor identity that is recognized and valued in the community of practice inhabited by classroom teachers.

Smith, J. W., W. J. Smith, et al. (2000). "Diversity issues in mentoring academic faculty." Journal of Career Development **26**(4): 251-262.
A study of 226 faculty in mentoring relationships found that a larger proportion of women are mentored. There were no significant differences in psychosocial support from mentors in cross-cultural versus homogenous pairings. The impact of mentoring on organizational commitment was significantly greater for Caucasian men and women. (SK)

Smith, P. (2001). "Mentors as gate-keepers: an exploration of professional formation." Educational Review **53**(3): 313-324.
In this account of a longitudinal study into mentors' perceptions of weakness in trainees during initial teacher training in England there are indications that teachers' ideas about what makes a good professional have been influenced by the increasingly prescriptive formulae which the government has introduced. The study begins to investigate how the mentor group has incorporated the training framework into its 'commonsense' understanding of professional priorities. The findings are based on the results of a questionnaire ranking exercise given between 1996 and 1998 to 273 secondary school mentors in the Keele partnership at their annual training conference.

Smith, T. M. and R. M. Ingersoll (2004). "What are the effects of induction and mentoring on beginning teacher turnover?" American Educational Research Journal **41**(3): 681-714.

In recent-years there has been an increase in the number of programs offering support, guidance, and orientation for beginning teachers during the transition into their first teaching job. This study examines whether such programs-collectively known as induction-have a positive effect on the retention of beginning teachers. The data used in the analysis are from the nationally representative 1999-2000 Schools and Staffing Survey. The results indicate that beginning teachers who were provided with mentors from the same subject field and who participated in collective induction activities, such as planning and collaboration with other teachers, were less likely to move to other schools and less likely to leave the teaching occupation after their first year of teaching.

Smith-Jentsch, K. A., S. A. Scielzo, et al. (2008). "A comparison of face-to-face and electronic peer-mentoring: Interactions with mentor gender." Journal of Vocational Behavior **72**(2): 193-206.

The present study compared the relative impact of peer-mentoring that took place either face-to-face or through electronic chat. Protégés were 106 college freshmen randomly assigned to a senior college student mentor and to one of the two communication modes. Fifty-one mentors interacted with one of these protégés face-to-face and one solely through electronic chat. Electronic chat resulted in less psychosocial support, career support, and post-mentoring protégé self-efficacy for those with male but not female mentors. Analyses of coded transcripts revealed that males condensed their language to a greater extent than did females in the electronic chat condition relative to the face-to-face condition. Dyads in the electronic chat condition had more interactive dialogue than did those in the face-to-face condition. Finally, dialogue inter-activity predicted post-mentoring self-efficacy but only for those who communicated through electronic chat. © 2007 Elsevier Inc. All rights reserved.

Solansky, S. T. (2010). "The evaluation of two key leadership development program components: Leadership skills assessment and leadership mentoring." Leadership Quarterly **21**(4): 675-681.

This study evaluated two key components in leadership development programs: a 360-degree assessment of leadership skills and leadership mentoring. The participants in this study include 303 individuals in a leadership development program and 41 leadership mentors. The methodology and underlying rationale for using the two methods selected to evaluate the program are described. The results illustrate the degree to which mentees open up whets mentors focus more on coaching and less on compliance and when mentors initiate personal contact with the mentees more often. The results also indicate that self-reports and observer-reports are statistically significantly different from one another. Implications and limitations are discussed. © 2010 Elsevier Inc. All rights reserved.

Sosik, J. J. and V. M. Godshalk (2000). "The role of gender in mentoring: Implications for diversified and homogenous mentoring relationships." Journal of Vocational Behavior **57**(1): 102-122.

The present study examined the effects of gender composition of mentoring relationships on protégés' perceptions of the degree of role modeling and psychosocial and career development mentoring functions received. Data from 200 mentor/protégé dyads composed of working professionals from a variety of industries were analyzed using ANCOVA with planned comparisons. Results indicated that mentoring relationships involving female mentors in either homogeneous or diversified relationships provided more role modeling and less career development than relationships involving male mentors. Unexpectedly, male mentors in homogeneous relationships were associated with lower levels of role modeling than female mentors in either homogeneous or diversified relationships. Homogeneous male relationships also offered less psychosocial support than female mentors in diversified relationships with male protégés. Male mentors in diversified relationships with female protégés were associated with more career development than any other gender combination of mentoring relationship. © 2000 Academic Press.

Sosik, J. J. and V. M. Godshalk (2004). "Self-other rating agreement in mentoring - Meeting protégé expectations for development and career advancement." Group & Organization Management **29**(4): 442-469.

This study used Atwater and Yammarino's (1997) self-other rating agreement process model to examine whether mentor-protégé agreement regarding mentor transformational leadership would influence mentoring functions (i.e., psychosocial support and career development) and protégé outcomes (i.e., career satisfaction, job satisfaction, desired aspirations, enacted aspirations). Mentors in 217 mentor-protégé dyads were classified as over-estimators, under-estimators, in-agreement/poor, or in-agreement/good based on the difference between mentor's self-rating and protégé's rating of mentor's transformational leadership. Results of multivariate analysis of covariance indicated that protégés in over-estimator dyads reported the lowest levels of psychosocial support and career satisfaction. Protégés in under-estimator dyads reported higher levels of psychosocial support, career development, and enacted aspirations than in-agreement/poor and over-estimator dyads. Protégés in in-agreement/good dyads reported higher levels of psychosocial support than in-agreement/poor and over-estimator dyads. The practical implications of these results are discussed.

Sosik, J. J., V. M. Godshalk, et al. (2004). "Transformational leadership, learning goal orientation, and expectations for career success in mentor-protégé relationships: A multiple levels of analysis perspective." Leadership Quarterly **15**(2): 241-261.

Prior research has assumed that traditional mentor-protégé relationships based on mutual learning and development orientations operate at the dyadic level of analysis. This study examines this assumption by providing a multiple levels of analysis (individual and dyad) test of the relationships among learning goal

orientation, transformational leadership, and expectations of career success (career achievement, development, and balance) reported by 217 mentors and their protégés from 11 different industries. Results of within and between analysis (WABA) indicated that learning goal orientation/transformational leadership and transformational leadership/ expected career balance relationships were based on differences between dyads. Learning goal orientation/ expected career success and transformational leadership/expected career achievement and development relationships were based on differences between individuals. Implications for research and practice on mentoring relationships are discussed. (C) 2004 Elsevier Inc. All rights reserved.

Speck, B. W. (1990). "The manager as writing mentor." Training and Development Journal **44**(4): 78-81.

This author explores the role of managers as writing mentors who will help new employees learn effective business communication skills. He places emphasis on quantitative skills and discusses preconceptions on the operation of businesses and new-employee orientation.

St-Jean, E. and J. Audet (2012). "The role of mentoring in the learning development of the novice entrepreneur." International Entrepreneurship and Management Journal **8**(1): 119-140.

It has been recognized that learning outcomes can be divided into three general categories: Cognitive, skill-based, and affective learning. Moreover, public organizations offer mentoring-inspired support programs to novice entrepreneurs starting a business. This study explores entrepreneurial learning through mentoring. We have coded 53 learning outcomes acquired by novice entrepreneurs through their mentoring relationship. These learning outcomes were analyzed using the three general categories and linked with the mentor's way of promoting learning. Cognitive learning accounts for 62% of total learning outcomes and affective learning makes up 35.9%, which leaves skill-based learning in a marginal position. In addition, methods used by the mentor to ensure mentee learning affect learning content. Mentees were also asked to describe the benefits of their mentoring relationship through discussion groups. From a cognitive learning standpoint, benefits reported by entrepreneurs include an increase in management knowledge and skills, improved vision for their business venture and identifying new opportunities. Benefits resulting from affective learning include a greater sense of self-efficacy, validation of one's entrepreneurial self-image and a lowered sense of solitude, all factors that could ultimately influence entrepreneur resilience. These results reveal the scope and limitations of mentoring as means to support learning.

Stanulis, R. N. (1994). "Fading to a whisper – One mentor's story of sharing her wisdom without telling answers." Journal of Teacher Education **45**(1): 31-38.

This study respond to the need to make sense of teachers' role as mentors in support of novices as they learn to teach. Grounded in social constructivist this study draws on prior knowledge and experiences or Ms. Lee and other four

mentors construction of their mentor roles while interacting with prospective teachers. Results show that novices must become independent thinkers who use multiple sources of knowledge to make decisions through the introduction of critical questions to learn, reflect, and internalize knowledge.

Stanulis, R. N. (1995). "Classroom teachers as mentors – Possibilities for participation in a professional development school context." Teaching and Teacher Education **11**(4): 331-344.

This paper describes how five classroom teachers make sense of their role as mentors in support of novices as they learn to teach. These teachers interact within a context that provides possibilities for participation with a teacher education program and professional development research. The main aim of the study was to gain insights into ways in which the five mentors talk about their theories of how novices learn to teach, use different sources of knowledge to help novices learn to teach, and model and encourage critical reflection about issues and practices in teacher education. Findings reveal that four of the five mentors played prominent roles as teacher educators, and developed collaborative relationships within the professional development school context between mentors, prospective teachers, and university faculty through sustained interactions, shared professional responsibility, and respect.

Stanulis, R. N. and R. E. Floden (2009). "Intensive Mentoring as a Way to Help Beginning Teachers Develop Balanced Instruction." Journal of Teacher Education **60**(2): 112-122.

This study examines the impact of intensive mentoring as an induction program component aimed at improving teacher quality in ways that link teaching to student engagement. The Atmosphere, Instruction/Content, Management, and Student Engagement (AIMS) measure of teaching practice, focused on a research-based conception of high-quality teaching known as effective balanced instruction, was used to measure the impact of the intervention. Using a matched comparison group design with 24 beginning teachers, the study tested the effects on teaching practice of intensive mentoring. Findings indicate that the improvement in the beginning teachers' AIMS scores from fall to spring was greater for the experimental group than for the comparison group of teachers.

Stanulis, R. N., S. Little, et al. (2012). "Intensive mentoring that contributes to change in beginning elementary teachers' learning to lead classroom discussions." Teaching and Teacher Education **28**(1): 32-43.

This study examines whether targeted mentoring can make a difference during the induction years. The effects of a mentoring intervention based on principles of instructional quality and effective professional development were studied. Learning to lead classroom discussions is a high-leverage practice related to effective teaching. Forty-two beginning elementary teachers participated in yearlong mentoring to lead discussions for higher-order thinking. These novices were compared to 41 beginning teachers in the same high-poverty school district who did not receive the mentoring treatment. Qualitative and quantitative findings

illustrate significant differences in beginning teacher practices based on involvement in the intensive mentoring. (C) 2011 Elsevier Ltd. All rights reserved.

Stanulis, R. N. and D. Russell (2000). ""Jumping in": trust and communication in mentoring student teachers." Teaching and Teacher Education **16**(1): 65-80.

The purpose of this study was to uncover how two student teacher/mentor teacher pairs made sense of their roles during a year-long field placement. We learned about the ways in which the pairs discussed the idea of "jumping in" as they framed trust and communication as integral components of mentoring in learning to teach. Qualitative data sources informed our analysis of the ways people made sense of their roles in a mentoring relationship and provided participants' perspectives on involvement in-group conversations about mentoring. Implications include: (1) mentoring as "jumping in"; (2) conscious collaboration in learning to teach; and (3) mutual mentoring. (C) 1999 Published by Elsevier Science Ltd. All rights reserved.

Starcevich, M. and F. Friend (1999). "Effective mentoring relationships from the mentee's perspective." Workforce: 2-3.

Steadman, S. C. and J. S. Simmons (2007). "The cost of mentoring non-university-certified teachers: Who pays the price?" Phi Delta Kappan **88**(5): 364-367.

The current, rapidly growing shortage of teachers across America has prompted school systems to turn increasingly to non-university-certified teachers in an effort to staff their classrooms. These beginning teachers, lacking both the theoretical and field-based knowledge of their university-trained and certified counterparts, require in their first years in the classroom intense mentoring gained through extensive interaction with experienced teachers. Given the low retention rate, disappointing student learning gains, and degree of mentoring required by non-university-certified teachers, the educational community writ large must question if the stress placed on our resources by these individuals is worth the cost. Increasing numbers of new teachers have obtained alternative certification and are arriving in schools with neither the theoretical nor the field-based knowledge they would have gained from a traditional teacher education program. Ms. Steadman and Mr. Simmons question both the fairness and the advisability of burdening experienced teachers with the task of bringing these newcomers up to speed.

Steinberg, A. G. and D. M. Foley (1999). "Mentoring in the army: From buzzword to practice." Military Psychology **11**(4): 365-379.

As in many organizations, mentoring is a common buzzword in the U.S, Army. Yet, it is not dearly defined, and little data document the nature and extent of its practice. In addition, concern exists that, if White men are less likely to mentor women and minority members, mentoring may foster a so-called glass ceiling to future promotion: for women and minority personnel. Consequently, surveys and interviews were conducted to examine how Army senior noncommissioned officers (NCOs) and commissioned officers conceptualize mentoring, the prevalence of mentoring, and whether women and minorities have different

mentoring experiences. Factor analysis showed 3 dimensions of mentoring behaviors: Personal Development, Career Sponsoring, and Job Coaching. Most NCOs acid officers had been mentored. Neither women nor minority members were at a disadvantage; no gender or race differences were found in whether they were mentored, in the type of assistance they received, and in the helpfulness of those mentoring behaviors. However, differences occurred as a function of rank and type of organizational unit of those who were mentored.

Stokes, P. (2003). "Exploring the relationship between mentoring and counselling." British Journal of Guidance & Counselling **31**(1): 25-38.

In this article, the author examines the relationship between mentoring and counselling in the context of a mentoring relationship. Drawing on Clutterbuck and Megginson's (1999) Mentoring Executives & Directors, Butterworth-Heinemann, seven roles in mentoring, he explores how career functions of mentoring are incommensurable with psycho-social functions-following Kram's (1983) original terms-with a specific focus on counseling. This analysis raises some problems with the notion of counseling as part of the repertoire of the mentor, with the aim of the article not being to resolve these tensions but, instead, to put them forward as issues worthy of attention, debate and empirical investigation.

Strong, M. and W. Baron (2004). "An analysis of mentoring conversations with beginning teachers: suggestions and responses." Teaching and Teacher Education **20**(1): 47-57.

This study analyzes how mentor teachers make pedagogical suggestions to beginning teachers during mentoring conversations and how beginning teachers respond. Sixty-four conversations between 16 veteran teacher mentors and their beginning teacher protégés are examined and analyzed. The analysis reveals the extreme efforts of mentors to avoid giving direct advice, and a corpus that includes many indirect suggestions, about one-third of which produce elaborated responses from the novice teachers. It is suggested that the observed conversational patterns may be largely explained by the philosophy of the program (based on the Cognitive Coaching model) of which the mentors and beginning teachers are a part. (C) 2003 Elsevier Ltd. All rights reserved.

Struthers, N. J. (1995). "Differences in mentoring: A function of gender or organizational rank?" Journal of Social Behavior and Personality **10**(6): 265-272.

One hundred sixty-five female professors who had been mentored at some point during their academic careers responded to a questionnaire about their experiences. Of interest was the extent to which their mentors had provided them with psychosocial support, and also the extent to which their mentors had utilized their power within the organization for the benefit of the protégé. Previous research indicated that power was much more likely to be used by male mentors and psychosocial support was much more likely to be provided by female mentors. Results of this study indicated that perceptions of utilization of power by the mentor increased with rank of the mentor, regardless of gender. In other

words, full professors were perceived as utilizing significantly more power in the enhancement of their protégés' academic careers than were assistant professors. Perceptions of psychosocial support provided by the mentor tended to diminish with the rank of the mentor, although not significantly so.

Summers, S. J., K. Funk, et al. (2007). "The explication of a mentor model, videotaping, and reflective consultation in support of infant mental health." Infant Mental Health Journal **28**(2): 216-236.

Infant mental health, as concept and intervention, is poorly understood by most practitioners in education settings. Direct-service personnel often lack appropriate knowledge, training, skills, and confidence in recognizing and addressing infant mental health problems. While programs and policymakers increasingly acknowledge the need to offer infant mental health services in order to prevent or mediate poor developmental outcomes among young children, effective methods of realizing an infant mental health initiative remain elusive. This qualitative study of five early education programs examines the use of mentors trained in clinical psychology or social work to support educators in delivering infant mental health services. The perspectives of administrators, direct-service providers, and mentors help us understand what constitutes successful infant mental health mentoring in general, and videotaping in combination with reflective consultation in particular.

Sundli, L. (2007). "Mentoring - A new mantra for education?" Teaching and Teacher Education **23**(2): 201-214.

Mentoring has become an important part of teacher education, as an element in both the enhancement of reflective practice and the professional development of schools. Yet the concept remains confused. Problematic issues such as the elements of power and control, and the danger of dependence and intimacy are seldom heard when mentoring is considered and new plans for teaching and education are presented. This article discusses the concept of mentoring, especially as a feature of the professional development and training of student teachers in Norway. A Ph.D.-study (Sundli, 2001) shows how mentoring may turn out to be an obstacle to reflection rather than an enhancement. It argues for new ways of regarding mentoring as part of the student's process of becoming a professional teacher. (c) 2006 Elsevier Ltd. All rights reserved.

Swerdlik, M. E. and J. I. Bardon (1988). "A survey of mentoring experiences in school psychology." Journal of School Psychology **26**(3): 213-224.

The present investigation is intended to describe the mentoring experiences of school psychologists as a basis for further exploration of its process and its improvement. A questionnaire was mailed to a random sample of NASP members and directors of doctoral and master's level graduate programs. Completed questionnaires were received from 607 respondents. The characteristics of the mentors, the protégés, and their relationship are presented, as are implications for the field.

Tauer, S. M. (1998). "The mentor-protégé relationship and its impact on the experienced teacher." Teaching and Teacher Education **14**(2): 205-218.

This study examined the perceptions of experienced teachers who had taken on formal roles as mentor teachers. Case studies were developed for each of 10 participants, of whom 7 were neophyte mentors. Each mentor was interviewed four times throughout the school year, while his or her mentees were each interviewed twice. Mentors were also observed in the classroom. Results emphasized the idiosyncratic nature of the mentor/mentee relationship, and found the district/school culture surrounding the mentor program to have a significant influence on the relationship. Since the evolution of mentor/mentee relationships is found to be highly unpredictable, it is argued that those designing such programs should emphasize creating the optimal context for positive relationships rather than attempting to mandate specific dimensions of the relationship. It is also suggested that more structured mentor programs serve to establish a more clear understanding of each participant's mission, goals, and role, as well as lending an institutional validity to these roles. The importance of training for mentor teachers in specific skills such as active listening, clinical supervision, and adult development is also stressed. (Contains 43 references.) (PB)

Tellez, K. (1992). "Mentors by choice, not design – Help-seeking by beginning teachers." Journal of Teacher Education **43**(3): 214-221.

This paper focuses on the informal help or advice that beginning teachers seek. The data reported in this study, gathered from 128 first-year teachers, suggest that beginning teachers are selective in whom they ask for help. They seek help from experienced teachers they perceive as friendly and caring, independent of whether the teachers are formally recognized as their mentors. Most of the teachers in the sample reported that they would seek help from someone other than their mentor if they had a serious problem in teaching. Satisfaction with help from other sources, an unwillingness to seek formal help, and organizational factors are explored as possible reasons why these beginning teachers reported that they would seek help from others rather than from their assigned mentors. Issues of teacher socialization are also discussed.

Tenenbaum, H. R., F. J. Crosby, et al. (2001). "Mentoring relationships in graduate school." Journal of Vocational Behavior **59**(3): 326-341.

This study asked graduate students at the University of California about their relationships with their advisors, satisfaction, and academic success. Both the women and men students worked primarily with male advisors. but riot disproportionately to the availability of male and female professors. Instrumental help and networking help contributed positively to productivity (i.e., publications. posters, and conference talks). Psychosocial help contributed to students' satisfaction with their mentor and with their graduate school experience. The results are interpreted and implications are discussed in a framework of recent research on mentoring in organizations. © 2001 Academic Press.

Tepper, B. J. (1995). "Upward maintenance tactics in supervisory mentoring and non-

mentoring relationships." Academy of Management Journal **38**(4): 1191-1205.

This study explored the communication strategies junior colleagues use to preserve stable mentoring and non-mentoring relationships with their supervisors. Data collected from 259 managerial and technical/professional employees suggest informally mentored subordinates use a distinctive pattern of upward maintenance tactics with their supervisors. Interestingly, few differences among formal supervisory protégés, nonsupervisory protégés, and non-protégés emerged. Implications for mentorship theory, research, and practice are discussed.

Terrion, J. L. and R. Philion (2008). "The electronic journal as reflection-on-action: a qualitative analysis of communication and learning in a peer-mentoring program." Studies in Higher Education **33**(5): 583-597.

The University of Ottawa in Canada offers a peer-mentoring program (whereby an experienced student provides support and guidance to another student) and an associated training program for all peer mentors through its Student Academic Success Service. In addition to the formal training, some peer mentors receive feedback and support through an electronic journal system that records communication between mentors and their supervisor, a paid employee of the university. As a transcript of the interaction between those peer mentors who use the journal and their supervisor, and a record of the mentor's competency development, the journals provide a rich source of data. This project used an in-depth content analysis of 192 journals in order to assess the learning process experienced by the mentor. Using reflection-on-action as a theoretical framework, this study explores the processes involved as peer mentors reflect on and assess their own practices, and examines the role of dialogue, in the form of feedback provided by the supervisor, in this learning process.

Thibodeaux, H. F. and R. H. Lowe (1996). "Convergence of leader-member exchange and mentoring: An investigation of social influence patterns." Journal of Social Behavior and Personality **11**(1): 97-114.

This study explored the conceptual convergence of in-group Leader-Member Exchange relations and mentoring by examining how participants described the two types of relationships with supervisors. In- and out-group leader-member relationships were compared on measures designed to identify mentoring relationships. Reported patterns of social power used with in-group members and with protégés were also compared. Seventy-two employed people completed the Leader-Member Exchange scale, Career Support Scale, and power scales. Results indicated that in-group members described their relationships with their supervisors as a mentoring one whereas out-group members did not. A similar pattern of social influence was also reported by those who were identified as in-group members and as protégés. In-group members and mentored individuals reported greater use of expert and referent power than out-group members and non-mentored people. Further, out-group members and non-mentored individuals both reported a greater use of coercive power than did in-group members and protégés.

Thies-Sprinthall, L. (1986). "A collaborative approach for mentor training - A working model." Journal of Teacher Education **37**(6): 13-20.

Sprinthall provides a critique of current teacher induction programs and suggests a framework for a comprehensive response to improve in-service teacher preparation, with veteran teachers assuming new roles as trainers for neophyte teachers. Such roles legitimate an explicit shift for teacher induction from the university to the school. The author's model enables local education agency (LEA) teachers to act as clinical faculty and provides an opportunity for university professors to serve as ex tension agents.

Thile, E. L. and G. E. Matt (1995). "The ethnic mentors undergraduate program – A brief description and preliminary findings." Journal of Multicultural Counseling and Development **23**(2): 116-126.

The Ethnic Mentor Undergraduate (EMU) Program targets students from traditionally underrepresented ethnic backgrounds and aims at fostering skills and attitudes necessary to persist to graduation. Findings indicate that EMU protégés perform better than the university-wide average and that drop out rates are reduced. Implications for mentoring programs are discussed.

Thomas, C. H. and M. J. Lankau (2009). "Preventing burnout: The effects of LMX and mentoring on socialization, role stress and burnout." Human Resource Management **48**(3): 417-432.

Halbesleben and Buckley's (2004) review of burnout research suggested a lingering need to examine the relationship between social support and burnout. We address that need by investigating Leader-Member Exchange (LMX) and mentoring as sources of workplace social support. We used data from 422 employees in a health care setting to test three structural models investigating the direct and indirect effects of LMX, supervisory mentoring, and non-supervisory mentoring on organizational socialization, role stress, and burnout. Results suggest that high-LMX supervisors and nonsupervisory mentors serve as resources that minimize emotional exhaustion through increased socialization and decreased role stress. This study advances the literature on burnout by clarifying the effects of different types of social support in reducing burnout. © 2009 Wiley Periodicals, Inc.

Thomas, D. A. (1989). "Mentoring and irrationality – The role of racial taboos." Human Resource Management **28**(2): 279-290.

This article explores the concepts of mentoring and racial taboos in corporations. The author suggests that in the work environment of a corporation the feelings people have can have a dramatic impact on the atmosphere and, more specifically, on the mentor-protégé relationship. The author discusses how race relations can become embedded in taboos that both highlight and suppress the links between race and sex. Examining this idea in the mentor-protégé relationship that author contends that blacks and whites are shortchanged as they search for less intense ways of forming this relationship. The author suggests that blacks and whites

need to confront their history in order to move beyond these embedded feelings and produce effective mentor-protégé relationships.

Thomas, D. A. (1990). "The impact of race on managers' experiences of developmental relationships (mentoring and sponsorship) – An intra-organizational study." Journal of Organizational Behavior **11**(6): 479-492.

This study examines the influence of race on protégés' experiences of forming developmental relationships. Data were collected from 88 black and 107 white managers, who, collectively, accounted for 487 developmental relationships. The results indicate that white protégés have almost no developmental relationships with persons of another race. Black protégés, however, form 63 per cent of their developmental relationships with whites. Blacks are more likely than whites to form relationships outside the formal lines of authority and outside their departments. Furthermore, same-race relationships were found to provide significantly more psychosocial support than cross-race relationships.

Thomas, D. A. (2001). "The truth about mentoring minorities race matters." Harvard Business Review **79**(4): 98-+.

Diversity has become a top priority in corporate America. Despite corporations' best intentions, however, many have failed to achieve a racial mix at the top levels of management. Some have revolving doors for h talented minorities, recruiting the best and brightest, only to see them leave, frustrated by their experiences. Others are able to retain high-potential professionals of color but find them mired in middle management. To understand the different career trajectories of whites and minorities, David Thomas studied the progression of racial minorities at three large U.S. corporations. Here, he explains the three career stages that all professionals advance through, and he discusses why promising white professionals tend to enter fast tracks early in their careers, whereas high-potential minorities typically take off after they have reached middle management. Thomas's research shows that minorities who advance the furthest share one characteristic: a strong network of mentors and corporate sponsors. He found that minorities who plateaued in middle management received mentoring that was basically instructional; it helped them to develop skills. By contrast, minorities who became executives enjoyed fuller developmental relationships with their mentors. Thomas explains the types of support mentors provide for their protégés and outlines the challenges of mentoring across racial lines. Specifically, he addresses negative stereotypes, public scrutiny, difficulty with role modeling, and peer resentment. Finally, Thomas challenges the notion that the job of mentors begins and ends with their one-on-one relationships with their protégés. He offers concrete advice on how mentors can support broader initiatives at their organizations to create and enhance conditions that foster the upward mobility of professionals of color.

Thompson, L., M. Jeffries, et al. (2010). "E-mentoring for e-learning development." Innovations in Education and Teaching International **47**(3): 305-315.

Creating new distance e-learning modules requires considerable staff expertise.

To help develop and expand this, mentoring holds promise. However, in lifelong learning provision, potential module creators are often very distant from potential mentors and asynchronously available. E-mentoring might overcome these logistical constraints. This study explored the viability and effectiveness of e-mentoring for an e-learning module development within arts and humanities. During two phases of implementation, participants were supported by face-to-face (FTF) training meetings, linked with a Web-based chat room facility. Mentors had eight paid hours per year per mentee, for email, telephone and/or FTF contact. Evaluation was based upon e-questionnaire feedback and FTF interviews with mentors and mentees, with assessment of quality of new modules by program leaders. It was concluded that e-mentoring offers a promising but not straightforward socio-technical solution for developing new distance e-learning modules. Effective e-mentoring for this purpose should involve systematic induction, mapping all support channels, needs assessment, differentiation and blended forms of communication.

Thurston, P. W., C. P. D'Abate, et al. (2012). "Mentoring as an HRD approach: Effects on employee attitudes and contributions independent of core self-evaluation." Human Resource Development Quarterly **23**(2): 139-165.

Mentoring as a form of strategic human resource management is an interesting addition to the HRD literature because it provides a mechanism of change for individual employees. Numerous studies have demonstrated the benefits of mentoring to both the employee and the firm; yet, a recent review of mentoring research argues that mentoring has less effect on important job-related outcomes than some characteristics of the individual being mentored. While individual characteristics such as personality and core self-evaluation are good predictors of job-related attitudes and performance, they can't be acted on in an HRD capacity. The firm can, however, improve the quality of its human resources by taking actions that foster an environment for mentoring to flourish. The current research developed a model to examine whether efforts to reduce barriers and encourage mentoring can, in fact, lead to individual and organizational benefits like greater job, career, and coworker satisfaction; more organizational commitment; and higher performance and competency, and if these effects are independent of core self-evaluations. Data from 121 supervisors and 632 employees in a Fortune 500 insurance firm were subjected to linear structural relations (LISREL) analysis. Results demonstrated that while both mentoring and core self-evaluation had positive and independent relationships with job and organizational attitudes, only mentoring had a statistically reliable relationship with supervisors' reports of employee contributions. The findings suggest that the individual and organizational benefits of mentoring are important outcomes of a strong strategic HRD system.

Tillema, H. H. (2009). "Assessment for Learning to Teach Appraisal of Practice Teaching Lessons by Mentors, Supervisors, and Student Teachers." Journal of Teacher Education **60**(2): 155-167.

Supporting student teachers in learning to teach is a collaborative effort by mentor

teachers, teacher education supervisors, and student teachers. Each of the participants appraises effort and progress in learning to teach from different perspectives, however. This study explores how practice lessons are assessed by multiple raters. Teacher educators, mentor teachers, and student teachers (51 participants in total) were asked to appraise a practice lesson given by the mentored student. Alignment in rating was analyzed in 17 triads and compared with respect to purpose of assessment, object of appraisal, preferred method, and focus of the appraisal as well as on the criteria used by the various assessors. Shared problems encountered during the appraisal were also gauged. Our findings indicate considerable variation in purposes and multiple perspectives in criteria among the different assessors. Differences and similarities among the stakeholders were interpreted as contributing to a multifaceted appraisal of accomplishments. Nevertheless, a shared, common ground is also needed to value the different aspects that should be included in an integrated or encompassing approach for assessment of learning to teach.

Tillman, L. C. (2001). "Mentoring African American faculty in predominantly White institutions." Research in Higher Education **42**(3): 295-325.

Mentoring has been identified as a method to facilitate the professional growth and development of African American faculty and to increase their representation in predominantly White institutions. However, there is little empirical evidence from studies of this group to suggest that this is the case. This article presents findings from a study of the mentoring experiences of African American faculty in two predominantly White research institutions, and the findings are presented using a cross case analysis to highlight complexities which may affect the dynamics of faculty-to-faculty mentoring for African Americans. The findings from this study make two important contributions to the literature on faculty-to-faculty mentoring for African Americans: an analysis of assigned mentoring relationships and the concept of the isolation of African American faculty in predominantly White institutions. The findings also challenge the literature on traditional faculty-to-faculty mentoring in three areas: mentor functions, phases of the mentor-protégé relationship, and race in the mentoring relationship. The article concludes with implications for practice and the role of the university in taking affirmative steps to facilitate the professional growth and development of African American faculty.

Tillman, L. C. (2003). "Mentoring, reflection, and reciprocal journaling." Theory into Practice **42**(3): 226-233.

There is a severe shortage of African American teachers in K-12 public education, and this shortage is particularly acute in large, urban school districts. This article presents results from a case study of a mentoring triad-a first-year African American teacher, her mentor, and her principal-and the use of reflection and reciprocal journaling to reflect on and dialogue about the challenges of teaching in a large urban high school. More specifically, the research is an investigation of journaling as a reciprocal process of communication used by the participants to reflect on instructional practices, principal expectations, racial and cultural issues

within the urban school context, and the first-year teacher's decision to stay in her position. The author discusses two major themes, the teacher's professional competence and the teacher as a member of the school community, and gives several recommendations for practice.

Tillman, L. C. (2005). "Mentoring new teachers: Implications for PF leadership practice in an urban school." Educational Administration Quarterly **41**(4): 609-629.

This article focuses on leadership practices and teacher mentoring in an urban school context. A central perspective of this discussion is the role of the urban school principal in implementing and facilitating mentoring arrangements that will lead to competence, retention, and improved student achievement. Results from a case study of a mentoring triad in a large, urban high school are presented. The participants were a 1st-year African American teacher, her mentor and the principal. The article begins with a discussion of teacher mentoring. The discussion then shifts to the mentoring experiences of the 1st year African American teacher Next, three themes are discussed: (a) mentoring as a means for enhancing professional and personal competence; (b) mentoring as a means of transmitting the culture of the educational environment; and (c) mentoring as a catalyst for transformative leadership. The article concludes with a discussion and some implications for transformative leadership practices that can facilitate effective mentoring arrangements for new teachers in the urban school context.

Treston, H. (1999). "Peer mentoring: Making a difference at James Cook University, Cairns - It's moments like these you need mentors." Innovations in Education and Training International **36**(3): 236-243.

This paper adds to the literature on mentoring in its discussion of the successful application of a peer-mentoring program in a small university campus in tropical northeastern Australia. The Student Mentor program at James Cook University Cairns has been evolving for eight years and is still developing with student and staff initiatives. The ethos of the program involves the offer of a friendly helping hand from a continuing student for each new student in his or her first semester. The paper could be useful for those currently involved with or setting up a peer-mentoring program.

Trubowitz, S. (2004). "The why, how, and what of mentoring." Phi Delta Kappan **86**(1): 59-62.

Sidney Trubowitz offers tips for teachers entering a mentoring relationship. He suggests addressing the following questions before beginning the relationship: How are people chosen to be mentors? What are the beginning steps in the development of a mentor relationship? What does the mentor need to learn about the school environment? How does the mentor build trust? What are the stages of development that characterize mentor-mentee relationships? What are the pitfalls on the road to productive mentoring? What is the place of mentoring in schools? Based on his own experience mentoring a new teacher, Mr. Trubowitz offers valuable tips for those considering entering into this challenging and mutually enriching relationship.

Turner, J. A. and P. A. Edwards (2006). "When it's more than you, Jesus, and the pencil: Reflections on an academic writing mentorship." Journal of Adolescent & Adult Literacy **50**(3): 172-178.

What makes academic writing so challenging, and what might be done to help graduate students who struggle with it? The authors explore answers to these questions by reflecting upon their own experiences in graduate school and highlighting their collaboration as African-American literacy scholars. They use the term *academic writing mentorship* to characterize their writing relationship and discuss how collaborative work transformed their perceptions of and experiences with academic writing. They also offer academic writing mentorships as a possible strategy for supporting graduate students struggling with academic writing.

Van Collie, S. C. (1998). "Training - Moving up through mentoring." Workforce **77**(3): 36-40.

Focuses on the formalization of the mentoring process to help younger employees advance their careers. Discusses the benefits of mentoring to mentor and the mentee, the distinction between executive coaching and mentoring, Mentoring in business and the potential application for group mentoring. (Debra Facktor Lepore)

Vann, A. S. (1991). "Mentors for principals." Educational Leadership **49**(2): 85-85.

Explains why the author recommends serving as an assistant principal as a prerequisite for being a principal. He discusses the importance of mentors and how, under the watchful eyes of a mentor, the potential for mistakes due to inexperience or ignorance is greatly reduced.

Varkey, P., A. Jatoi, et al. (2012). "The positive impact of a facilitated peer mentoring program on academic skills of women faculty." BMC Medical Education **12**.

Background: In academic medicine, women physicians lag behind their male counterparts in advancement and promotion to leadership positions. Lack of mentoring, among other factors, has been reported to contribute to this disparity. Peer mentoring has been reported as a successful alternative to the dyadic mentoring model for women interested in improving their academic productivity. We describe a facilitated peer-mentoring program in our institution's department of medicine. Methods: Nineteen women enrolled in the program were divided into 5 groups. Each group had an assigned facilitator. Members of the respective groups met together with their facilitators at regular intervals during the 12 months of the project. A pre- and post-program evaluation consisting of a 25-item self-assessment of academic skills, self-efficacy, and academic career satisfaction was administered to each participant. Results: At the end of 12 months, a total of 9 manuscripts were submitted to peer-reviewed journals, 6 of which are in press or have been published, and another 2 of which have been invited to be revised and resubmitted. At the end of the program, participants reported an increase in their satisfaction with academic achievement (mean score increase, 2.32 to 3.63; P

= 0.0001), improvement in skills necessary to effectively search the medical literature (mean score increase, 3.32 to 4.05; P = 0.0009), an improvement in their ability to write a comprehensive review article (mean score increase, 2.89 to 3.63; P = 0.0017), and an improvement in their ability to critically evaluate the medical literature (mean score increased from 3.11 to 3.89; P = 0.0008). Conclusions: This facilitated peer-mentoring program demonstrated a positive impact on the academic skills and manuscript writing for junior women faculty. This 1-year program required minimal institutional resources, and suggests a need for further study of this and other mentoring programs for women faculty.

Viator, R. E. (2001). "An examination of African Americans' access to public accounting mentors: perceived barriers and intentions to leave." Accounting Organizations and Society **26**(6): 541-561.

This paper reviews prior research on diversified mentoring relationships and formulates predictions regarding African Americans' access to public accounting mentors. Empirical analysis is based on responses from 116 African-American public accounting employees, compared to 756 Caucasian responses from a prior study. Statistical results indicate that African-American public accounting employees are less likely to obtain an informal mentor and perceive greater barriers to obtaining mentors. For two mentoring functions (protection and assistance, and social support), African-American respondents reported lower levels of support, compared to Caucasian respondents. Also, African-American respondents indicated stronger intentions to leave public accounting. (C) 2001 Elsevier Science Ltd. All rights reserved.

Viator, R. E. (2001). "The association of formal and informal public accounting mentoring with role stress and related job outcomes." Accounting Organizations and Society **26**(1): 73-93.

This paper examines the association between mentoring (both formal and informal) and three measures of role stress (role conflict, role ambiguity, and perceived environmental uncertainty), as well as two job outcomes (job performance and turnover intentions). The statistical analysis is based on structural equation modeling, using responses from 794 employees of large public accounting organizations. The results suggest that in addition to providing the traditional career development and psychosocial support functions: informal mentors provide protégés with information that clarifies their organizational role (reduces role ambiguity). However, mentoring benefits may come at a cost: higher role conflict. The study found limited positive effects attributed to formally assigned mentors. (C) 2000 Elsevier Science Ltd. All rights reserved.

Viator, R. E. and W. R. Pasewark (2005). "Mentorship separation tension in the accounting profession: the consequences of delayed structural separation." Accounting Organizations and Society **30**(4): 371-387.

This study inquires whether public accounting mentoring relationships conform to the classical Greco-Roman model (where mentors guide protégés and eventually release them to pursue an autonomous life) or a modern form (where mentoring

continues indefinitely and serves as an organizational control mechanism). Data was obtained from 630 professionals in the accounting profession who reported having a mentor. Participants who considered the mentoring relationship to be in the past, yet remained working in close physical proximity of their mentor, reported the highest levels of mentorship tension. For these participants (n = 100), mentorship tension was associated with negative job outcomes. These results extend research by [Covaleski, M.A., Dirsmith, M.W., Heian, J.B., & Samuel, S. (1998). Administrative Science Quarterly 43, 293-327] identifying the use of mentoring as an organizational control mechanism in the public accounting profession. (C) 2004 Elsevier Ltd. All rights reserved.

Wagner, L. A. (1985). "Ambiguities and possibilities in California's mentor teacher program." Educational Leadership **43**(3): 23-29.

Describes California's Mentor Teacher Program, which provides stipends for experienced teachers who are appointed to work in a staff development capacity with new teachers, other career teachers, and "teacher trainees" without formal teacher training. Covers mentor qualifications and program implementation, documentation, and evaluation. Reviews program operations in two districts. (PGD)

Walker, L. J. S. and P. Leboldus (1993). "A career mentor program." Psychological Reports **73**(3): 1257-1258.

This Career Mentor Program has associated 546 students with 269 mentors within various career paths to expand students' awareness of career alternatives and educate them about the value of career networks.

Wallace, J. E. (2001). "The benefits of mentoring for female lawyers." Journal of Vocational Behavior **58**(3): 366-391.

The objectives of this study were twofold: to determine the effect mentoring has on a set of career and emotional outcomes for female lawyers and to determine whether female lawyers benefit more from having had a male or female mentor. All of these assessments were conducted while controlling for a set of demographic, human capital, work context, and personality disposition variables. Having a mentor appears instrumental for the career success of female protégés in terms of earnings, promotional opportunities, procedural justice, and social integration. In addition, in terms of the emotional outcomes, protégés report greater career satisfaction than non-protégés and indicate that their expectations are met to a greater degree. While female protégés with male mentors earn significantly more than those with female mentors, those mentored by women report more career satisfaction, more intent to continue practicing law, professional expectations that were met to a greater degree, and less work and non-work conflict than those women who were mentored by men. © 2001 Academic Press.

Wanberg, C. R., J. Kammeyer-Mueller, et al. (2006). "Mentor and protégé predictors and outcomes of mentoring in a formal mentoring program." Journal of Vocational Behavior

69(3): 410-423.

This study examines the predictors and outcomes of mentoring received by participants of a 12-month formal mentoring program. Based on relationship theory, we examined how the personality of the individuals in the mentoring dyad, their perceived similarity, and mentor perceived support for mentoring contributed to relationship outcomes. The study includes data from both mentors and protégés at the program launch, midway through the program, and at program close. Mentor proactivity was related to more career and psychosocial mentoring; protégés' perception of similarity to their mentor was related to more psychosocial mentoring. More mentoring was related to positive protégé and mentor outcomes, including improved protégé career clarity over the duration of the study. © 2006 Elsevier Inc. All rights reserved.

Wanberg, C. R., E. T. Welsh, et al. (2007). "Protégé and mentor self-disclosure: Levels and outcomes within formal mentoring dyads in a corporate context." Journal of Vocational Behavior **70**(2): 398-412.

This study examined the role of self-disclosure within protégé/mentor dyads in formal mentoring partnerships within a corporate context as a means of learning more about specific relationship processes that may enhance the positive outcomes of mentoring. While both protégés and mentors self-disclosed in their relationships, protégés disclosed at a higher level than mentors. Protégé self-disclosure, but not mentor self-disclosure, was related to protégé outcomes including mentoring received, relationship satisfaction, and positive influence of mentoring. The study contributes to a mentoring literature that has become more interested in examining mentoring relationship micro-processes from both the protégé and mentor perspective. © 2007 Elsevier Inc. All rights reserved.

Wang, J. (2001). "Contexts of mentoring and opportunities for learning to teach: a comparative study of mentoring practice." Teaching and Teacher Education **17**(1): 51-73.

Drawing on data from twenty-three US, UK, and Chinese mentor teachers, this study explores the relationship between contexts of mentoring and mentoring practice. It discusses learning opportunities created by mentoring in different contexts for novices to learn to teach. Through comparative analysis, it finds that mentoring practices show greater differences across programs and countries than within. This is the case even when mentors are practicing or moving toward practicing a kind of teaching as expected by education reformers. These differences are reflected in mentors' beliefs about what novices need to learn, their interaction patterns and foci with novices. Three instructional contexts in each setting shape such differences: structure of school curriculum and assessment, organization of teaching and mentoring, and student population. These findings suggest that the reform-minded teaching practice that mentors developed does not necessarily guarantee the effective mentoring that supports teacher learning and teaching reform. Teacher educators should pay attention to the influences of instructional contexts on mentoring and the kinds of learning opportunities that mentoring creates for novice teachers in different contexts. When designing mentoring programs and arranging mentoring relationships, teacher educators

need to consider how to restructure school contexts and help mentors learn how to mentor. © 2000 Elsevier Science Ltd. All rights reserved.

Wang, J. and S. J. Odell (2007). "An alternative conception of mentor-novice relationships: Learning to teach in reform-minded ways as a context." Teaching and Teacher Education **23**(4): 473-489.

Teacher educators have suggested that mentoring has the potential to help novices learn to teach in reform-minded ways. This suggestion implies a change in the nature of mentor-novice relationships as conceptualized in the existing literature and an understanding of the complexities of mentoring relationships. Based on critical constructivist and social cultural perspectives of learning as well as research on learning to teach, we conceptualize 16 types of mentor-novice relationships and identify challenges and complexities associated with moving novices toward reform-minded teaching. Drawing on exemplary mentoring cases, we illustrate some of our conceptualized mentor-novice relationships and their consequences on learning to teach in reform-minded ways. Finally, we suggest that helping mentors and novices develop a shared vision for teaching and relevant beliefs about learning to teach is a central challenge for using mentoring to support reform-minded teaching. © 2006 Elsevier Ltd. All rights reserved.

Wang, J., M. Strong, et al. (2004). "Mentor-novice conversations about teaching: A comparison of two US and two Chinese cases." Teachers College Record **106**(4): 775-813.

Mentor-novice collaborative reflection about teaching is crucial to the development of novices' professional knowledge. However, few studies examine content and forms of mentor-novice conversations and opportunities that such interactions create for developing professional knowledge. Drawing on observation data from two U.S. and two Chinese mentor-novice pairs in induction contexts, this Study analyzed the content and, forms of mentor-novice conversations about novices' lessons. We found that the U.S. and Chinese mentor-novice interactions were different in focus and form, and these differences were likely related to the curriculum, structures, and organization of teaching and mentoring in each country. The interactions either offered or restricted novices' opportunities for developing professional knowledge necessary for reform-minded leaching.

Wang, S., E. C. Tomlinson, et al. (2010). "The Role of Mentor Trust and Protégé Internal Locus of Control in Formal Mentoring Relationships." Journal of Applied Psychology **95**(2): 358-367.

This study examined the relationship between mentor trust, protégé internal locus of control, and the mentoring functions reported by protégés. The matched mentor protégé sample came from a formal mentoring program in China. We found a positive relationship between protégés' internal locus of control and the extent of mentoring functions they reported receiving. Mentors' affect-based trust was positively related to the extent of mentoring functions protégés reported receiving regardless of their internal locus of control. However, mentors' cognition-based

trust was positively related to protégés' report of the extent of mentoring functions only for protégés who were lower in internal locus of control. The theoretical and practical implications of these results are discussed.

Waters, L. (2004). "Protégé-mentor agreement about the provision of psychosocial support: The mentoring relationship, personality, and workload." Journal of Vocational Behavior **65**(3): 519-532.

Protégé-mentor agreement (PMA) about the provision of psychosocial support was examined in relation to job satisfaction, organizational commitment, and work self-esteem. One-hundred and sixty-six junior administrative and information technology (IT) staff at an Australian university and their matched mentors completed a questionnaire that assessed three antecedents to PMA: (1) structural and experience aspects of the mentorship (type and length of relationship, frequency of meetings, previous experience with mentoring, and gender-mix); (2) protégé and mentor personality (agreeableness, openness, extroversion, neuroticism, and conscientiousness); and (3) protégé and mentor workload. Structural Equation Modeling using Partial Least Squares revealed that PMA was predicted by structural and experience aspects of the mentorship (type of mentorship, frequency of meetings, and experience of the mentor), protégé personality (agreeableness, openness, extroversion, and conscientiousness), mentor personality (agreeableness, openness, and extroversion), and mentor workload. Protégé mentor agreement was positively related to job satisfaction and organizational commitment for protégés and mentors. © 2003 Elsevier Inc. All rights reserved.

Waters, L., M. McCabe, et al. (2002). "The role of formal mentoring on business success and self-esteem in participants of a new business start-up program." Journal of Business and Psychology **17**(1): 107-121.

The current study investigated the relationship between career-related mentoring, psychosocial mentoring, business success, and self-esteem in participants of a program that was designed to assist in the establishment of a new business. Seventy-seven protégés and their matched mentors were included in the study. A comparison of mentor and protégé perceptions revealed that mentors considered themselves to provide higher levels of psychosocial support than did the protégés. Protégé perceptions of business success were predicted by the frequency of mentor contact and the level of career-related support provided by their mentor.

Wedding, D., J. L. McCartney, et al. (2009). "Lessons Relevant to Psychologists Who Serve as Mentors for International Students." Professional Psychology-Research and Practice **40**(2): 189-193.

Do you have opportunities to teach, counsel, or mentor international students at your university or in your practice? Do you supervise international students in practica and internships? If so, are you aware of the different cultural backgrounds of your students and their sometimes unique educational and personal needs? This article briefly reviews the literature on mentoring and examines the mentoring relationship with a particular focus on the needs of

international students. The authors highlight the difficulties confronting international students learning to cope with a different, challenging, and sometimes bewildering new environment and recommend ways in which psychologists can support international students through mentoring.

Weinberg, F. J. and M. J. Lankau (2011). "Formal Mentoring Programs: A Mentor-Centric and Longitudinal Analysis." Journal of Management **37**(6): 1527-1557.

Formal mentoring programs are becoming more popular as organizations attempt to reap the benefits that have long been associated with informal mentoring. The present study adds to the small number of mentor-centric studies and offers a unique longitudinal examination of formal mentoring programs. Findings suggest that as formal mentoring relationships develop over time, mentors begin to use their time more efficiently and the negative effects of cross-gender differences dissipate. Furthermore, whereas mentor reports of psychosocial support and role modeling appear to relate to mentor program satisfaction and protégé reports of mentor effectiveness, reports of vocational support appear to have no impact on these variables. Study limitations are discussed, and implications for future research and for practice are suggested.

Weiner, D. and J. Weiner (1996). "Research mentor: A tool to aid in the training of scientific investigators." British Journal of Educational Technology **27**(1): 5-14.

We describe an intelligent mentor for teaching the ability to think scientifically. The student is given an arbitrary starting place in the matrix of knowledge surrounding an area of biomedical research. He/she then proposes hypotheses and supporting experiments which are checked against the knowledge base for agreement, consistency or contradiction. Agreement or consistency results in the report of successful experiments, thus advancing the student's "state-of-the-art." Contradiction results in failure of the experiment to support the hypothesis. In either case, a new hypothesis can then be proposed and tested, each step being potentially contingent on results of the last. The knowledge base upon which the system operates is a frame-based implementation of the Biomatrix, augmented with pointers to literature citations. Each object (hypotheses, experiments, cells, animals, etc.) is described in terms of its properties and its relations to other objects. Thus, the matrix is represented as a semantic network, Other objects create the relations among the hypotheses, sub-hypotheses, experiments and other parts of the knowledge base. This system provides experiential learning at a rate determined by the student, while saving costly resources.

Weinreb, M. L. (1997). "Be a resiliency mentor: You may be a lifesaver for a high-risk child." Young Children **52**(2): 14-20.

Notes that educators familiar with factors that support resiliency can shore up protective mechanisms in young children. Defines resilience in children, discussing 11 protective strategies that teachers can employ to fortify resilience in children in areas of personal characteristics and traits, and family and community factors. Suggests that through modeling, providing, and strengthening these

buffers, educators become resiliency mentors. (AMC)

Welsh, E. T., D. Bhave, et al. (2012). "Are you my mentor? Informal mentoring mutual identification." Career Development International **17**(2-3): 137-148.

Purpose: The purpose of this study is to understand the extent to which potential mentors and protégés agree that an informal mentoring relationship exists. Because these relationships are generally tacitly understood, either the mentor or protégé could perceive that there is a mentoring relationship when the other person does not agree. Whether or not gender affects this is also to be examined. Design/methodology/approach: Individuals were asked to identify their mentoring partners. Each report of a partner was then compared to the partner's list to determine whether there was a match (i.e. both reported the relationship as an informal mentoring relationship) or a mismatch (i.e. where one partner reported the relationship as an informal mentoring relationship but the other did not). This pattern of matches and mismatches was then analyzed to determine level of matching and gender differences. Findings - There is little agreement between mentoring partners: neither potential protégés nor potential mentors were very accurate at identifying reciprocal informal mentoring partners. However, gender was not found to be related to different levels of matching. Originality/value: Previous work has not examined whether potential informal mentoring partners perceive the relationship in the same way. This has implications for employees who are depending upon their mentoring partners for support that may not be forthcoming because the partner does not view the relationship similarly. The findings also have implications for researchers, particularly when studying mentoring relationships from only one perspective and implicitly assuming agreement between partners.

Welsh, E. T. and C. R. Wanberg (2009). "Launching the post-college career: A study of mentoring antecedents." Journal of Vocational Behavior **74**(3): 257-263.

Drawing upon role-making theory, this study examines which new job market entrants, following college graduation, find informal mentors and how much mentoring they receive from these mentors using a predictive design. Our results suggest that individuals lower in negative affectivity and higher in cognitive ability as well as women, individuals who have previously had a mentor, and those who go to work for organizations with developmental climates are more likely to find informal mentors. In contrast, individuals higher in learning goal orientation and mentoring instrumentality receive more mentoring once a mentoring relationship has been established. © 2008 Elsevier Inc. All rights reserved.

Whitebook, M. and D. Bellm (1996). "Mentoring for early childhood teachers and providers: Building upon and extending tradition." Young Children **52**(1): 59-64.

Discusses mentoring as a professional development strategy to meet the needs of experienced and novice practitioners. Defines mentoring and differentiates it from supervision. Discusses the following aspects of early childhood mentoring programs: (1) goals and assumptions; (2) design and structure, including mentor qualifications and training; (3) compensation, including funding; (4) theoretical

underpinnings; (5) demonstrated effectiveness; and (6) future directions. (KDFB)

Whitehead, J. and B. Fitzgerald (2007). "Experiencing and evidencing learning through self-study: New ways of working with mentors and trainees in a training school partnership." Teaching and Teacher Education **23**(1): 1-12.

This paper uses self-study to analyze the development of a generative, research-based approach to mentoring initial teacher training students in a Training School/university partnership and its contribution to redefining teacher education practice. It focuses on the ontological values and co-learning of the authors as they work collaboratively with mentors to develop a democratic form of social practice and relations. The use of video to record the teaching and situated learning of mentors and trainees is explored, as are the qualities and conditions that helped foster the shift in power relations between participants as they engaged in reflective dialogue and inquiry. Issues of sustainability and embedding such practices are addressed, as is the contribution of practitioner-research accounts to the professional knowledge of other teacher educators, teachers and trainees. © 2006 Elsevier Ltd. All rights reserved.

Whitely, W., T. W. Dougherty, et al. (1991). "Relationship of career mentoring and socioeconomic origin to managers' and professionals' early career progress." Academy of Management Journal **34**(2): 331-351.

This study examined the relationship of career mentoring to the promotions and compensation received by 404 early career managers and professionals working in a variety of organizations. The results indicate that with a number of variables controlled, career mentoring was related to both promotion rate for people from the highest-level socioeconomic backgrounds than for those from lower-level backgrounds. We provide several explanations for the effects of career mentoring on early career progress and suggest a number of areas for future research on mentoring and other developmental relationships.

Whitely, W., T. W. Dougherty, et al. (1992). "Correlates of career oriented mentoring for early career managers and professionals. " Journal of Organizational Behavior **13**(2): 141-154.

This study examines several different kinds of correlates of career-oriented mentoring experiences among early career managers and professionals. Survey data were collected from 416 respondents employed in a wide variety of jobs, organizations, and industries. The respondents averaged 30 years of age, and 28 per cent were women. Results indicated that younger, more work-involved respondents from higher socioeconomic origins received more career-oriented mentoring. In addition, managers received more mentoring than professionals, as did those who were higher in the organization hierarchy. While gender of the protégé was unrelated to the amount of career mentoring received, reasons are offered for this result. Various boundary conditions likely to affect mentoring processes are discussed and several directions are recommended for future research on mentoring.

Whitely, W. T. and P. Coetsier (1993). "The relationship of career mentoring to early career outcomes." Organization Studies **14**(3): 419-441.

This study examines the relationship of career mentoring to the promotions, compensation and satisfaction of 148 early career managers and professionals in Belgium. The results support the conclusion that career mentoring is particularly related to early career promotion histories, to general work satisfaction and career satisfaction. Career mentoring was unrelated to total compensation. These results occurred even after controlling for a variety of factors identified by Pfeffer (1977) and Whitely et al. (1991). Several reasons are provided for the relationship between career mentoring and these early career outcomes. The results suggest a number of areas for future career mentoring research.

Wilde, J. B. and C. G. Schau (1991). "Mentoring in graduate schools of education – Mentees' perceptions." Journal of Experimental Education **59**(2): 165-179.

A national sample of students in graduate colleges and departments of education was surveyed to study mentoring relationships from the mentees' point of view. The sample was selected randomly from students identified as mentees by their professors. Results from 177 students who returned completed information indicated that the mentees agreed with the designation of their relationship with the professor as "mentoring." Analysis of a Likert-scale instrument based on psychological and career models of mentoring identified four components: Psychological and Professional Mutual Support, Comprehensiveness, Mentee Professional Development, and Research Together. With increasing age, mentees reported a decrease in Professional Development activities. Neither sex of mentee nor sex of mentor differences were found.

Wildman, T. M., S. G. Magliaro, et al. (1992). "Teacher mentoring – An analysis of roles, activities and conditions. " Journal of Teacher Education **43**(3): 205-213.

A conceptual framework composed of eight categories of mentoring activities that address five domains of beginning teachers' concerns was developed based on the reported activities of 150 teachers who were lead mentors. The study suggests that experienced teachers possess an extensive repertoire of helping strategies and that, with opportunities for collaboration; teachers can develop and shape complex mentoring roles that meet beginning teachers' needs. Conditions that influence mentoring relationships include school context factors and mentor and beginning teacher characteristics. Mentoring programs thus should not attempt to rigidly specify mentoring roles. With support, experienced teachers can provide assistance tailored to the circumstances of beginning teachers in individual schools.

Willbur, J. (1987). "Does mentoring breed success." Training and Development Journal **41**(11): 38-41.

In a study designed to investigate methods for developing people in a corporate setting, data were collected from 258 male managers. Results indicate that mentoring is a significant predictor of career success for fast-track employees as well as for the steady-track form of career success. (CH)

Williams, E. A., G. W. Butt, et al. (1998). "Mentors' use of dialogue within a secondary initial teacher education partnership." Educational Review **50**(3): 225-239.

This paper analyses conversations between mentors and students, recorded during a major placement on a I year secondary Postgraduate Certificate in Education course. Analysis of dialogue between eight mentors and 15 students confirms the complexity of the mentor role that others have described. The importance attached to particular roles seems to vary from one mentor to another and this may lead to a mismatch between the needs of individual students and what the mentor offers. Scrutiny of the nature of the interactions, based on discourse analysis, indicates significant differences between mentors. An extension of the range of roles which mentors are able to play together with the capacity to vary style of interaction may help to maximize the potential for student learning within the mentoring context.

Williams-Nickelson, C. (2009). "Mentoring Women Graduate Students: A Model for Professional Psychology." Professional Psychology-Research and Practice **40**(3): 284-291.

There is much discussion about the importance of mentoring women graduate students but not an equal amount of practical research-based guidance about how best to do this. This article summarizes a mentoring model that was developed using a pilot survey of 55 women graduate students throughout the United States, followed by grounded theory research by conducting qualitative interviews with 8 eminent women psychologists. It augments current research on mentoring to provide an integrated set of hypotheses about the theory and practice of mentoring; an operational definition of mentor and mentoring; overarching assumptions about mentoring; strategies for forming, structuring, managing, and maintaining mentoring relationships; and the roles and functions of the mentor, the mentee, and the relationship. It describes examples of mentoring practices specifically for use with women mentees and discusses how mentoring relationships may end or change as they mature. While the mentoring model was developed based on research with women, many of the tenants can be applied to both men and women.

Willis, F. N. and C. T. Diebold (1997). "Producing mentors in psychology." Teaching of Psychology **24**(1): 15-21.

This study was designed to identify doctoral Programs in psychology that produced the most mentors and to assess the quality of these programs as rated in past research. Mentor was defined as dissertation supervisor. Samples of doctoral recipients were selected from the 1970, 1980, and 1989-1991 Dissertation Abstracts International. We selected every 10th entry for a total of 875 recipients, for whom 851 dissertation supervisors were identified. The programs producing the supervisors and the supervisors' years of graduation were also identified. The 25 programs producing the most supervisors accounted for almost 60% of the recipients. These programs tended to be among the oldest in American Psychology and among the programs rated highest in quality in studies reported over many years and using various measures of duality. The proportion of women

among mentors increased but not as rapidly as the proportion of women among doctoral recipients.

Wilson, Z. S., L. Holmes, et al. (2012). "Hierarchical Mentoring: A Transformative Strategy for Improving Diversity and Retention in Undergraduate STEM Disciplines." Journal of Science Education and Technology **21**(1): 148-156.

In the United States, less than half of the students who enter into science, technology, engineering, and mathematics (STEM) undergraduate curricula as freshmen will actually graduate with a STEM degree. There is even greater disparity in the national STEM graduation rates of students from underrepresented groups with approximately three-fourths of minority students leaving STEM disciplines at the undergraduate level. A host of programs have been designed and implemented to model best practices in retaining students in STEM disciplines. The Howard Hughes Medical Institute (HHMI) Professors Program at Louisiana State University, under leadership of HHMI Professor Isiah M. Warner, represents one of these programs and reports on a mentoring model that addresses the key factors that impact STEM student attrition at the undergraduate level. By integrating mentoring and strategic academic interventions into a structured research program, an innovative model has been developed to guide STEM undergraduate majors in adopting the metacognitive strategies that allow them to excel in their programs of study, as they learn to appreciate and understand science more completely. Comparisons of the persistence of participants and nonparticipants in STEM curricular, at the host university and with other national universities and colleges, show the impact of the model's salient features on improving STEM retention through graduation for all students, particularly those from underrepresented groups.

Wu, Y. P., J. H. Nassau, et al. (2011). "Mentoring Reviewers: The Journal of Pediatric Psychology Experience." Journal of Pediatric Psychology **36**(3): 258-264.

Objectives: To describe a program designed to meet the need to mentor trainees in manuscript reviewing. Methods Mentors (n = 25) and mentees (n = 32) participating in the Journal of Pediatric Psychology's Manuscript Review Mentoring Program completed an online survey assessing their experiences and satisfaction with the program, perceptions of benefits and challenges to participating, and desirable characteristics of mentors and mentees. Results: Participants reported using several methods to create mentored reviews. Satisfaction was generally high, and participants reported benefits related to manuscript review training and professional development. Challenges to participating in the program were primarily logistical. Participants noted personal characteristics and behaviors that were desirable for mentors and mentees. Conclusions: Providing mentored manuscript review experiences through a structured program appear to be feasible and is a practice well received by mentors and mentees. Future programs might provide guidance on how participants can discuss their expectations, benchmarks for review quality, and evaluations of the quality of reviews.

Wunsch, M. A. (1993). "Mentoring probationary women academics – A pilot program for career development." Studies in Higher Education **18**(3): 349-362.

Recruiting and promoting qualified women in academic staff positions challenges not only those universities with a commitment to support equal opportunity and positive action, but also those which are concerned about effective staff development in an era of change and expansion in higher education. This paper describes a 2-year pilot program implemented in a public research university in the USA for mentoring new women academic staff from the time they enter the institution as probationers. The program emphasizes individual professional development, but also attends to the institutional factors that influence women's advancement. The activities include colleague-pairing, mentor training, the use of a mentoring agreement, and a multi-leveled series of academic career development workshops, seminars and networking activities. The assessment and research component includes a needs determination study, pre-and post-participation perception of barriers studies, program assessment, and the start of a longitudinal study of mentees from entrance to tenure or end of probation. It is suggested that the experiences of women academics in US universities and those in the United Kingdom are remarkably similar and that this type of mentoring program could be adapted in a wide number of types of universities.

Yendol-Hoppey, D. (2007). "Mentor teachers' work with prospective teachers in a newly formed professional development school: Two illustrations." Teachers College Record **109**(3): 669-698.

Background/Content: Since a large gap exists between the rhetoric of reform-minded teacher education and what actually transpires in student teachers' field experiences, this study sought to fill a gap in current scholarship which has yet to document how mentor teachers, conceptualized as school-based teacher educators, shape and conduct their own work with student teachers assuming the role of full-year undergraduate interns. Focus of Study: The Purpose of this study was to explore how two successful mentor teachers enact their work with interns in a newly created inquiry-oriented professional development school. Research Design: This investigation uses case study methodology informed by both ethnographic and phenomenological perspectives. Using these lenses and data collected over an eighteen-month period, the stories of two mentor teachers are captured and analyzed. Conclusions: Three themes emerged within each case that characterized the unique work of each mentor The three themes that shape the work of the first mentor offer insight into a conceptual illustration represented by a gardening metaphor The three themes of the second case suggest a mentor as co-inquirer's approach to mentoring. A look across the cases augments our understanding of mentoring prospective teachers.

Young, A. M. and P. L. Perrewe (2000). "What did you expect? An examination of career-related support and social support among mentors and protégés." Journal of Management **26**(4): 611-632.

Perceptions of mentors and protégés were examined to understand how, the mentoring Exchange is perceived and how perceptions of the exchange influence

feelings about the relationship. In particular, we suggest that there are specific behaviors related to career and social support exhibited throughout the mentoring process. It was hypothesized that when relevant career and social support behaviors are exhibited sufficiently, to meet the expectations of a partner, higher levels of relationship effectiveness, and trust for a partner are realized Findings indicate that when protégés are open to advisement and coaching and put forth effort in accomplishing required work or projects, a mentor' s perceptions of relationship effectiveness and trust felt for the protégé are positively influenced. When mentors engage in sufficient levels of social support behaviors to meet a protégé's expectations, a protégé will form higher perceptions of relationship effectiveness and trust for the mentor. The findings of this study, implications for managers, and suggestions for future research are discussed in derail. (C) 2000 Elsevier Science Inc, All rights reserved.

Younger, M. and M. Warrington (2009). "Mentoring and target-setting in a secondary school in England: an evaluation of aims and benefits." Oxford Review of Education **35**(2): 169-185.

This paper reflects upon the nature of a target-setting and mentoring scheme in an 11-16 school in England, through a series of retrospective interviews with students who continued into further education. It considers the extent to which the initiative impacted both upon students' formal academic achievement at 16+ and upon the subsequent longer-term aspirations of these students. Interviews with students who achieved considerable 'value-added' in their GCSE examinations suggested that the impact of mentoring was strongest amongst those students who came from homes where there was less expectation of them participating in further and higher education, and that this effect was not differentiated according to gender. The paper suggests that longer-term transformation of students' aspirations, and the challenging of gendered course and career stereotypes, will only be achieved if schools adopt a more holistic and proactive approach to careers education and to widening participation for their students, and that the absence of such proactivity will limit the longer-term gains initiated by successful mentoring activities.

Zagenczyk, T. J., R. Gibney, et al. (2009). "Mentors, supervisors and role models: do they reduce the effects of psychological contract breach?" Human Resource Management Journal **19**(3): 237-259.

Psychological contract breach has become a significant problem for many organizations in today's business environment because it fosters a belief within employees that the organization does not support them. Accordingly, we examine whether organizations can diminish the negative impact of psychological contract breach on perceived organizational support (POS) by providing employees with mentors, supportive supervisors and role models. In Study 1, we found that mentor relationships moderated the relationship between psychological contract breach and POS six months later. In Study 2, we showed that mentor relationships and supervisor support reduced the negative impact of contract breach on POS. Contrary to expectations, employees who maintained relationships with role

models reported lower levels of POS in response to psychological contract breach than those employees who reported that they did not have role models in their organizations. Implications for research and practice are discussed.

Zanting, A., N. Verloop, et al. (2001). "Student teachers eliciting mentors' practical knowledge and comparing it to their own beliefs." Teaching and Teacher Education **17**(6): 725-740.

Student teachers have at their disposal various information sources concerning teaching: their own beliefs, their mentors' practical knowledge, and 'theory'. Because practical knowledge often remains implicit, the aim of the present study was to explore the appropriateness of two techniques for its articulation: concept mapping and completing sentences. The criterion used was that these should not only elicit descriptions of how to teach, but also the cognitions underlying teaching, i.e., practical knowledge. Thirty-five student teachers and their mentors at a postgraduate teacher-training institute in the Netherlands used both techniques, concerning the subject of 'order'. Subsequently, the students summarized their own beliefs, their mentors' practical knowledge, and theory and compared these to each other. The student teachers' reports showed that they, in general, had been able to elicit partially their mentors' practical knowledge. It was concluded that the use of the techniques involved seemed valuable for student teachers' learning processes. © 2001 Published by Elsevier Science Ltd.

Zanting, A., N. Verloop, et al. (2001). "Student teachers' beliefs about mentoring and learning to teach during teaching practice." British Journal of Educational Psychology **71**: 57-80.

Background. Various interpretations of mentor roles, by teacher educators and mentors, have been described in the Literature on mentoring, while those of student teachers have received less attention. Therefore, this study focuses on student teachers' expectations of mentors and their own contributions to their learning process while they are supervised by a mentor. Aims. The main aims of this study were: (1) bridging the research on mentoring and the research on higher education students' learning conceptions by investigating student teachers' beliefs about mentoring and learning to teach, and (2) comparing these beliefs to mentors' ones and recent views on mentoring and learning in order to make suggestions for improving learning to teach. Sample. Thirty student teachers, graduates in various academic disciplines, participated. They were attending a one-year teacher education program at Leiden University in the Netherlands. Methods. Structured interviews with the student teachers were audiotaped. Firstly, categories of mentor roles and learning activities were derived from the data. These were linked, secondly, by their focus of attention and, thirdly, empirically by a homogeneity analysis (HOMALS). Results. Six mentor roles, ten learning activities, and one regulation activity were combined in six foci: (1) affective aspects of learning to teach, (2) mentors' teaching styles, (3) assessment of student teachers' performance, (4) reflecting on students' lessons, (5) school context, and (6) self-regulation of learning. The HOMALS analysis yielded a process-product dimension. Conclusion. In this study, the student teachers' beliefs about mentoring

were similar to those of mentors. Furthermore, a third of the student teachers expected themselves as thinking critically about their lessons, but nobody expected their mentors to explicate their practical knowledge underlying their teaching. Therefore, the articulation of this knowledge is indicated as an additional mentor role and will be elaborated.

Zanting, A., N. Verloop, et al. (2003). "Using interviews and concept maps to access mentor teachers' practical knowledge." Higher Education **46**(2): 195-214.

Mentor teachers' practical knowledge often remains implicit for the student teachers they supervise. Practical knowledge consists of various cognitions that clarify mentors' own lessons and the feedback given to student teachers. The aim of the present study was to evaluate two instruments, the interview and concept map, for accessing practical knowledge in the context of teacher education. Seventy student teachers participating in a postgraduate teacher education program in the Netherlands interviewed their mentors and discussed a concept map made by these mentors. They summarized their mentors' explicated practical knowledge about 'teaching' and 'order', wrote down their learning experiences, and evaluated both instruments. Several categories of learning experiences and evaluations were derived from the reports that were analyzed qualitatively and quantitatively. The summaries of practical knowledge were analyzed using two distinctions: (1) 'absolute' versus 'situational' and (2) 'descriptive' versus 'analytical' statements. At least half of the student teachers evaluated interviewing and concept mapping positively, when these skills were used for accessing practical knowledge. The analysis showed that concept mapping had elicited more reasons underlying teaching than interviewing. It was concluded that both instruments can help student teachers to access practical knowledge, each revealing qualitatively different information: interviewing yielded more concrete, practical information while that produced by concept mapping was more abstract.

Zeek, C., M. Foote, et al. (2001). "Teacher stories and transactional inquiry - Hearing the voices of mentor teachers." Journal of Teacher Education **52**(5): 377-385.

The authors trace their work with mentor teachers in a southwestern U.S. professional development school. These mentors met to tell, write, share, and analyze stories of their experiences as mentors to pre-service teachers. As the authors worked with several groups of teachers, they began to analyze the processes involved in the sessions. An outcome of the authors' discussions was the idea of transactional inquiry, a method grounded in narrative inquiry, transactional literacy theory, and literary analysis. Transactional inquiry provides a vehicle for teachers to reflect on their own and others' professional development, identify lessons from their teaching, and connect with other teachers through the inquiry process. This article describes the evolution of transactional inquiry as well as the mentors' stories and sharing.

Zellers, D. F., V. M. Howard, et al. (2008). "Faculty mentoring programs: Re-envisioning rather than reinventing the wheel." Review of Educational Research **78**(3): 552-588.

In this review, the authors trace the evolution of mentoring programs in the

United States in business and academe to provide insight oil the challenges associated with the study of mentoring, and identify the limited research based studies of faculty mentoring programs that currently inform our understanding of this professional development practice in American higher education. The findings indicate that the sophistication of research has not advanced over the past decade. However, evidence does suggest that academe should be cautious in overgeneralizing the findings of studies conducted in corporate cultures. Although mentoring is recognized to be contextual, only recently have investigators considered the impact of organizational culture on the effectiveness of corporate mentoring programs. More rigorous investigation of this practice in higher education is warranted. As more studies point to the need to foster all employment culture that supports mentoring, understanding faculty mentoring programs within the context of their academic cultures is critical.

Zey, M. G. (1985). "Mentor programs – Making the right moves." Personnel Journal **64**(2): 53-57.

Mentoring programs can serve to provide junior-level managers with both technical and interpersonal skills, instruct them in the ways of the corporate culture, and acclimate the protégé to the values and expectations of the company. The development of a mentor program is discussed in relation to the program goals, criteria for selection, and methods of mentor/protégé interaction. Recommendations include communication of program goals to all participants, continuous evaluation, and the use of a long-term test period. (PsycINFO Database Record © 2012 APA, all rights reserved)

Zey, M. G. (1988). "A MENTOR FOR ALL REASONS." Personnel Journal **67**(1): 46-51.

Five trends that create specific problems for the modern corporation include the coming labor shortage, the changing composition of the work force, the merger explosion, the quest for innovation, and the emergence of the cross-cultural corporation. It is held that these trends could be solved or alleviated by adopting a formal mentoring program. (PsycINFO Database Record © 2012 APA, all rights reserved)

Zuljan, M. V. and J. Vogrinc (2007). "A mentor's aid in developing the competences of teacher trainees." Educational Studies **33**(4): 373-384.

The induction period is a very important time in the career of a teacher and has a long-term influence on the teacher's professional development, efficacy, job satisfaction and the length of his/her career. One of the key roles in this period is played by the trainee's mentor. This paper presents the results of the extensive project 'Partnership of Faculties and Schools', carried out at the Pedagogical Faculty, University of Ljubljana, with the financial support of the European Social Fund and the Slovenian Ministry of Education, Science and Sport. We studied an induction project involving 361 teacher trainees and 331 mentors. The study reveals the trainees' expectations towards their mentors and the mentors' and trainees' evaluations of how the mentor aids a teacher trainee in developing their

competences.

Zuljan, M. V. and J. Vogrinc (2008). "How mentors, principals, and novice teachers view the role of a mentor." Didactica Slovenica-Pedagoska Obzorja **23**(3-4): 134-145.

In-service teacher training represents a sensitive period in the professional development of a novice teacher, and the novice teacher mentor plays an important role in this. To successfully complete this duty the aptitude of the mentor for the specific challenges of mentorship is of utmost importance. This article presents the results of an extensive project Partnership of Faculties and Schools, carried out at the Faculty of Pedagogy, University of Ljubljana. The study participants were 361 novice teachers, 331 mentors and 77 head teachers. The authors show how mentors, novice teachers, and headmasters rate the capability of mentors for the specific role of mentoring as well as the way that mentors and headmasters judge the need to educate mentors for carrying out the task of mentorship. The study revealed an interesting fact that novice teachers rate the capability of their mentors for the specific duties of mentoring more highly than mentors rate themselves.

Appendix C

Selected Literature

#	ARTICLES	Total Citations WOS	Average Citations/Year
		5993	171.23
1	Title: PHASES OF THE MENTOR RELATIONSHIP Author(s): KRAM, KE Source: ACADEMY OF MANAGEMENT JOURNAL Volume: 26 Issue: 4 Pages: 608-625 DOI: 10.2307/255910 Published: 1983	292	9.63
2	Title: MENTORING ALTERNATIVES - THE ROLE OF PEER RELATIONSHIPS IN CAREER-DEVELOPMENT Author(s): KRAM, KE; ISABELLA, LA Source: ACADEMY OF MANAGEMENT JOURNAL Volume: 28 Issue: 1 Pages: 110-132 DOI: 10.2307/256064 Published: 1985	251	8.93
3	Title: AN INVESTIGATION OF THE DETERMINANTS OF SUCCESSFUL ASSIGNED MENTORING RELATIONSHIPS Author(s): NOE, RA Source: PERSONNEL PSYCHOLOGY Volume: 41 Issue: 3 Pages: 457-479 DOI: 10.1111/j.1744-6570.1988.tb00638.x Published: FAL 1988	237	9.48
4	Title: A COMPARATIVE-STUDY OF MENTORING AMONG MEN AND WOMEN IN MANAGERIAL, PROFESSIONAL, AND TECHNICAL POSITIONS Author(s): DREHER, GF; ASH, RA Source: JOURNAL OF APPLIED PSYCHOLOGY Volume: 75 Issue: 5 Pages: 539-546 DOI: 10.1037//0021-9010.75.5.539 Published: OCT 1990	235	10.13
5	Title: FORMAL AND INFORMAL MENTORSHIPS - A COMPARISON ON MENTORING FUNCTIONS AND CONTRAST WITH NONMENTORED COUNTERPARTS Author(s): CHAO, GT; WALZ, PM; GARDNER, PD Source: PERSONNEL PSYCHOLOGY Volume: 45 Issue: 3 Pages: 619-636 Published: FAL 1992	213	10.1
6	Title: THE MENTOR ADVANTAGE - PERCEIVED CAREER JOB EXPERIENCES OF PROTEGES VERSUS NON-PROTEGES Author(s): FAGENSON, EA Source: JOURNAL OF ORGANIZATIONAL BEHAVIOR Volume: 10 Issue: 4 Pages: 309-320 DOI: 10.1002/job.4030100403 Published: OCT 1989	192	8
7	Title: MENTORSHIP - A CAREER TRAINING AND DEVELOPMENT TOOL Author(s): HUNT, DM; MICHAEL, C Source: ACADEMY OF MANAGEMENT REVIEW Volume: 8 Issue: 3 Pages: 475-485 DOI: 10.2307/257836 Published: 1983	186	6.17
8	Title: RELATIONSHIP OF CAREER MENTORING AND SOCIOECONOMIC ORIGIN TO MANAGERS AND PROFESSIONALS EARLY CAREER PROGRESS Author(s): WHITELY, W; DOUGHERTY, TW; DREHER, GF Source: ACADEMY OF MANAGEMENT JOURNAL Volume: 34 Issue: 2 Pages: 331-351 DOI: 10.2307/256445 Published: JUN 1991	174	7.91
9	Title: PERCEPTIONS OF MENTOR ROLES IN CROSS-GENDER MENTORING RELATIONSHIPS Author(s): RAGINS, BR; MCFARLIN, DB Source: JOURNAL OF VOCATIONAL BEHAVIOR Volume: 37 Issue: 3 Pages: 321-339 DOI: 10.1016/0001-8791(90)90048-7 Published: DEC 1990	158	6.83
10	Title: MUCH ADO ABOUT MENTORS Author(s): ROCHE, GR Source: HARVARD BUSINESS REVIEW Volume: 57 Issue: 1 Pages: 14-& Published: 1979	155	4.56
11	Title: MARGINAL MENTORING: THE EFFECTS OF TYPE OF MENTOR, QUALITY OF RELATIONSHIP, AND PROGRAM DESIGN ON WORK AND CAREER ATTITUDES Author(s): RAGINS, BR; COTTON, JL; MILLER, JS Source: ACADEMY OF MANAGEMENT JOURNAL Volume: 43 Issue: 6 Pages: 1177-1194 DOI: 10.2307/1556344 Published: DEC 2000	146	11.08

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13	Title: THE IMPACT OF RACE ON MANAGERS EXPERIENCES OF DEVELOPMENTAL RELATIONSHIPS (MENTORING AND SPONSORSHIP) - AN INTRA-ORGANIZATIONAL STUDY Author(s): THOMAS, DA Source: JOURNAL OF ORGANIZATIONAL BEHAVIOR Volume: 11 Issue: 6 Pages: 479-492 DOI: 10.1002/job.4030110608 Published: NOV 1990	124	5.35
14	Title: WHAT ARE THE EFFECTS OF INDUCTION AND MENTORING ON BEGINNING TEACHER TURNOVER? Author(s): SMITH, TM; INGERSOLL, RM Source: AMERICAN EDUCATIONAL RESEARCH JOURNAL Volume: 41 Issue: 3 Pages: 681-714 DOI: 10.3102/00028312041003681 Published: FAL 2004	120	13.33
15	Title: MENTORS AND PROTEGES - A CRITICAL-REVIEW OF THE LITERATURE Author(s): MERRIAM, S Source: ADULT EDUCATION QUARTERLY Volume: 33 Issue: 3 Pages: 161-173 Published: 1983	102	3.4
16	Title: EFFECTS OF RACE, GENDER, PERCEIVED SIMILARITY, AND CONTACT ON MENTOR RELATIONSHIPS Author(s): ENSHER, EA; MURPHY, SE Source: JOURNAL OF VOCATIONAL BEHAVIOR Volume: 50 Issue: 3 Pages: 460-481 DOI: 10.1006/jvbe.1996.1547 Published: JUN 1997	101	6.31
17	Title: AN INVESTIGATION OF PERSONAL LEARNING IN MENTORING RELATIONSHIPS: CONTENT, ANTECEDENTS, AND CONSEQUENCES Author(s): LANKAU, MJ; SCANDURA, TA Source: ACADEMY OF MANAGEMENT JOURNAL Volume: 45 Issue: 4 Pages: 779-790 DOI: 10.2307/3069311 Published: AUG 2002	99	8.91
18	Title: THE MENTOR'S PERSPECTIVE: A QUALITATIVE INQUIRY AND FUTURE RESEARCH AGENDA Author(s): ALLEN, TD; POTEET, ML; BURROUGHS, SM Source: JOURNAL OF VOCATIONAL BEHAVIOR Volume: 51 Issue: 1 Pages: 70-89 DOI: 10.1006/jvbe.1997.1596 Published: AUG 1997	96	5.94
19	Title: DYSFUNCTIONAL MENTORING RELATIONSHIPS AND OUTCOMES Author(s): SCANDURA, TA Source: JOURNAL OF MANAGEMENT Volume: 24 Issue: 3 Pages: 449-467 DOI: 10.1016/S0149-2063(99)80068-3 Published: 1998	90	6
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21	Title: THE EFFECTS OF SEX AND GENDER-ROLE ORIENTATION ON MENTORSHIP IN MALE-DOMINATED OCCUPATIONS Author(s): SCANDURA, TA; RAGINS, BR Source: JOURNAL OF VOCATIONAL BEHAVIOR Volume: 43 Issue: 3 Pages: 251-265 DOI: 10.1006/jvbe.1993.1046 Published: DEC 1993	82	4.1
22	Title: PERCEPTIONS OF MENTORING RELATIONSHIPS Author(s): FAGENSONELAND, EA; MARKS, MA; AMENDOLA, KL Source: JOURNAL OF VOCATIONAL BEHAVIOR Volume: 51 Issue: 1 Pages: 29-42 DOI: 10.1006/jvbe.1997.1592 Published: AUG 1997	79	4.94
23	Title: MENTORING PHASES AND OUTCOMES Author(s): CHAO, GT Source: JOURNAL OF VOCATIONAL BEHAVIOR Volume: 51 Issue: 1 Pages: 15-28 DOI: 10.1006/jvbe.1997.1591 Published: AUG 1997	78	4.88

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25	Title: THE MENTOR'S DILEMMA: PROVIDING CRITICAL FEEDBACK ACROSS THE RACIAL DIVIDE Author(s): COHEN, GL; STEELE, CM; ROSS, LD Source: PERSONALITY AND SOCIAL PSYCHOLOGY BULLETIN Volume: 25 Issue: 10 Pages: 1302-1318 DOI: 10.1177/0146167299258011 Published: OCT 1999	76	5.43
26	Title: GENDER AND WILLINGNESS TO MENTOR IN ORGANIZATIONS Author(s): RAGINS, BR; COTTON, JL Source: JOURNAL OF MANAGEMENT Volume: 19 Issue: 1 Pages: 97-111 DOI: 10.1016/0149-2063(93)90047-Q Published: MAR 1993	75	3.75
27	Title: SOCIAL SOURCES OF INFORMATION IN OPPORTUNITY RECOGNITION: EFFECTS OF MENTORS, INDUSTRY NETWORKS, AND PROFESSIONAL FORUMS Author(s): OZGEN, EREN; BARON, ROBERT A. Source: JOURNAL OF BUSINESS VENTURING Volume: 22 Issue: 2 Pages: 174-192 DOI: 10.1016/j.jbusvent.2005.12.001 Published: MAR 2007	65	10.83
28	Title: THE ROLE OF MENTORING IN THE INFORMATION GATHERING PROCESSES OF NEWCOMERS DURING EARLY ORGANIZATIONAL SOCIALIZATION Author(s): OSTROFF, C; KOZLOWSKI, SWJ Source: JOURNAL OF VOCATIONAL BEHAVIOR Volume: 42 Issue: 2 Pages: 170-183 DOI: 10.1006/jvbe.1993.1012 Published: APR 1993	65	3.25
29	Title: ALTERNATIVE FORMS OF MENTORING IN CHANGING ORGANIZATIONAL ENVIRONMENTS: A CONCEPTUAL EXTENSION OF THE MENTORING LITERATURE Author(s): EBY, LT Source: JOURNAL OF VOCATIONAL BEHAVIOR Volume: 51 Issue: 1 Pages: 125-144 DOI: 10.1006/jvbe.1997.1594 Published: AUG 1997	64	4
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32	Title: MANAGING CROSS-GENDER MENTORING Author(s): CLAWSON, JG; KRAM, KE Source: BUSINESS HORIZONS Volume: 27 Issue: 3 Pages: 22-32 DOI: 10.1016/0007-6813(84)90021-1 Published: 1984	61	2.1
33	Title: WHAT DO PROTEGES LOOK FOR IN A MENTOR - RESULTS OF 3 EXPERIMENTAL STUDIES Author(s): OLIAN, JD; CARROLL, SJ; GIANNANTONIO, CM; et al. Source: JOURNAL OF VOCATIONAL BEHAVIOR Volume: 33 Issue: 1 Pages: 15-37 DOI: 10.1016/0001-8791(88)90031-0 Published: AUG 1988	58	2.32
34	Title: THE CHANGING NATURE OF MENTORING IN ORGANIZATIONS: AN INTRODUCTION TO THE SPECIAL ISSUE ON MENTORING IN ORGANIZATIONS Author(s): RUSSELL, JEA; ADAMS, DM Source: JOURNAL OF VOCATIONAL BEHAVIOR Volume: 51 Issue: 1 Pages: 1-14 DOI: 10.1006/jvbe.1997.1602 Published: AUG 1997	54	3.38
35	Title: THE WAY WE WERE: GENDER AND THE TERMINATION OF MENTORING RELATIONSHIPS Author(s): RAGINS, BR; SCANDURA, TA Source: JOURNAL OF APPLIED PSYCHOLOGY Volume: 82 Issue: 6 Pages: 945-953 DOI: 10.1037/0021-9010.82.6.945 Published: DEC 1997	53	3.31

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37	Title: MENTORING OTHERS: A DISPOSITIONAL AND MOTIVATIONAL APPROACH Author(s): ALLEN, T. D. Source: JOURNAL OF VOCATIONAL BEHAVIOR, 62(1), 134-154. DOI: 10.1016/S0001-8791(02)00046-5 PUBLISHED: FEB 2003	52	3.06
38	Title: CORRELATES AND CONSEQUENCES OF PROTEGE MENTORING IN A LARGE HOSPITAL Author(s): KOBERG, CS; BOSS, RW; CHAPPELL, D; et al. Source: GROUP & ORGANIZATION MANAGEMENT, Volume: 19 Issue: 2 Pages: 219-239 DOI: 10.1177/1059601194192007 Published: JUN 1994	51	2.68
39	Title: THE SUPPORTIVE MENTOR AS A MEANS OF REDUCING WORK-FAMILY CONFLICT Author(s): NIELSON, TR; CARLSON, DS; LANKAU, MJ Source: JOURNAL OF VOCATIONAL BEHAVIOR, Volume: 59 Issue: 3 Pages: 364-381 DOI: 10.1006/jvbe.2201.1806 Published: DEC 2001	50	4.17
40	Title: WHAT DID YOU EXPECT? AN EXAMINATION OF CAREER-RELATED SUPPORT AND SOCIAL SUPPORT AMONG MENTORS AND PROTEGES Author(s): YOUNG, AM; PERREWE, PL Source: JOURNAL OF MANAGEMENT, Volume: 26 Issue: 4 Pages: 611-632 DOI: 10.1016/S0149-2063(00)00049-0 Published: 2000	50	3.85
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42	Title: BENEFITS OF MENTORING RELATIONSHIPS AMONG MANAGERIAL AND PROFESSIONAL WOMEN: A CAUTIONARY TALE Author(s): BURKE, RJ; MCKEEN, CA Source: JOURNAL OF VOCATIONAL BEHAVIOR, Volume: 51 Issue: 1 Pages: 43-57 DOI: 10.1006/jvbe.1997.1595 Published: AUG 1997	48	3
43	Title: ANTECEDENTS OF DIVERSIFIED MENTORING RELATIONSHIPS Author(s): Ragins, BR Source: JOURNAL OF VOCATIONAL BEHAVIOR, Volume: 51 Issue: 1 Pages: 90-109 DOI: 10.1006/jvbe.1997.1590 Published: AUG 1997	48	3
44	Title: UPWARD MAINTENANCE TACTICS IN SUPERVISORY MENTORING AND NONMENTORING RELATIONSHIPS Author(s): TEPPER, BJ Source: ACADEMY OF MANAGEMENT JOURNAL, Volume: 38 Issue: 4 Pages: 1191-1205 DOI: 10.2307/256626 Published: AUG 1995	48	2.67
45	Title: TOWARD A CONCEPTUALIZATION OF MENTORING Author(s): ANDERSON, EM; SHANNON, AL Source: JOURNAL OF TEACHER EDUCATION, Volume: 39 Issue: 1 Pages: 38-42 DOI: 10.1177/002248718803900109 Published: JAN-FEB 1988	48	1.92
46	Title: THE BENEFITS OF MENTORING FOR FEMALE LAWYERS Author(s): WALLACE, JE Source: JOURNAL OF VOCATIONAL BEHAVIOR, Volume: 58 Issue: 3 Pages: 366-391 DOI: 10.1006/jvbe.2000.1766 Published: JUN 2001	47	3.92
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49	Title: MENTORING IN PUBLIC ACCOUNTING FIRMS - AN ANALYSIS OF MENTOR PROTEGE RELATIONSHIP, MENTORSHIP FUNCTIONS, AND PROTEGE TURNOVER INTENTIONS Author(s): SCANDURA, TA; VIATOR, RE Source: ACCOUNTING ORGANIZATIONS AND SOCIETY, Volume: 19 Issue: 8 Pages: 717-734 DOI: 10.1016/0361-3682(94)90031-0 Published: NOV 1994	46	2.42
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51	Title: TEACHER MENTORING AND TEACHER RETENTION Author(s): ODELL, SJ; FERRARO, DP Source: JOURNAL OF TEACHER EDUCATION, Volume: 43 Issue: 3 Pages: 200-204 DOI: 10.1177/0022487192043003006 Published: MAY-JUN 1992	46	2.19
52	Title: A CONCEPTUAL ANALYSIS OF THE MENTOR RELATIONSHIP IN THE CAREER-DEVELOPMENT OF WOMEN Author(s): BOLTON, EB Source: ADULT EDUCATION, Volume: 30 Issue: 4 Pages: 195-207 DOI: 10.1177/074171368003000401 Published: 1980	46	1.39
53	Title: PROFESSORS AS MODELS AND MENTORS FOR COLLEGE-STUDENTS Author(s): ERKUT, S; MOKROS, JR Source: AMERICAN EDUCATIONAL RESEARCH JOURNAL, Volume: 21 Issue: 2 Pages: 399-417 DOI: 10.3102/00028312021002399 Published: 1984	45	1.55
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57	Title: MENTORSHIP BEHAVIORS AND MENTORSHIP QUALITY ASSOCIATED WITH FORMAL MENTORING PROGRAMS: CLOSING THE GAP BETWEEN RESEARCH AND PRACTICE Author(s): ALLEN, TD; EBY, LT; LENTZ, E Source: JOURNAL OF APPLIED PSYCHOLOGY, Volume: 91 Issue: 3 Pages: 567-578 DOI: 10.1037/0021-9010.91.3.567 Published: MAY 2006	42	6
58	Title: AN INVESTIGATION OF THE MODERATING EFFECTS OF GENDER ON THE RELATIONSHIPS BETWEEN MENTORSHIP INITIATION AND PROTEGE PERCEPTIONS OF MENTORING FUNCTIONS Author(s): SCANDURA, TA; WILLIAMS, EA Source: JOURNAL OF VOCATIONAL BEHAVIOR, Volume: 59 Issue: 3 Pages: 342-363 DOI: 10.1006/jvbe.2001.1809 Published: DEC 2001	42	3.5

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61	Title: MENTORING IN GRADUATE SCHOOLS OF EDUCATION - MENTORS PERCEPTIONS Author(s): BUSCH, JW Source: AMERICAN EDUCATIONAL RESEARCH JOURNAL, Volume: 22 Issue: 2 Pages: 257-265 DOI: 10.3102/00028312022002257 Published: 1985	41	1.46
62	Title: CLONING IN ACADEME - MENTORSHIP AND ACADEMIC CAREERS Author(s): BLACKBURN, RT; CHAPMAN, DW; CAMERON, SM Source: RESEARCH IN HIGHER EDUCATION, Volume: 15 Issue: 4 Pages: 315-327 DOI: 10.1007/BF00973512 Published: 1981	41	1.28
63	Title: THE POWER OF A MENTOR - PROTEGES AND NONPROTEGES PERCEPTIONS OF THEIR OWN POWER IN ORGANIZATIONS Author(s): FAGENSON, EA Source: GROUP & ORGANIZATION STUDIES, Volume: 13 Issue: 2 Pages: 182-194 DOI: 10.1177/105960118801300205 Published: JUN 1988	40	1.6
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65	Title: CORRELATES OF CAREER-ORIENTED MENTORING FOR EARLY CAREER MANAGERS AND PROFESSIONALS Author(s): WHITELY, W; DOUGHERTY, TW; DREHER, GF Source: JOURNAL OF ORGANIZATIONAL BEHAVIOR, Volume: 13 Issue: 2 Pages: 141-154 DOI: 10.1002/job.4030130204 Published: MAR 1992	38	1.81
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67	Title: RECONSTRUCTING MASCULINITY IN THE LOCKER-ROOM - THE MENTORS IN VIOLENCE PREVENTION PROJECT Author(s): KATZ, J Source: HARVARD EDUCATIONAL REVIEW, Volume: 65 Issue: 2 Pages: 163-174 Published: SUM 1995	36	2
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70	Title: TEACHER MENTORING - AN ANALYSIS OF ROLES, ACTIVITIES, AND CONDITIONS Author(s): WILDMAN, TM; MAGLIARO, SG; NILES, RA; Et Al. Source: JOURNAL OF TEACHER EDUCATION, Volume: 43 Issue: 3 Pages: 205-213 DOI: 10.1177/0022487192043003007 Published: MAY-JUN 1992	33	1.5

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72	Title: RESEARCH ON LEARNING TO TEACH - IMPLICATIONS FOR TEACHER INDUCTION AND MENTORING PROGRAMS Author(s): HULINGAUSTIN, L Source: JOURNAL OF TEACHER EDUCATION, Volume: 43 Issue: 3 Pages: 173-180 DOI: 10.1177/0022487192043003003 Published: MAY-JUN 1992	29	1.38
73	Title: MENTORING EFFECTS ON PROTEGES' CLASSROOM PRACTICE: AN EXPERIMENTAL FIELD STUDY Author(s): EVERTSON, CM; SMITHEY, MW Source: JOURNAL OF EDUCATIONAL RESEARCH, Volume: 93 Issue: 5 Pages: 294-304 Published: MAY-JUN 2000	28	2.15
74	Title: MENTORING - AN ACTION STRATEGY FOR INCREASING MINORITY FACULTY Author(s): BLACKWELL, JE Source: ACADEME-BULLETIN OF THE AAUP, Volume: 75 Issue: 5 Pages: 8-14 DOI: 10.2307/40249734 Published: SEP-OCT 1989	28	1.17
75	Title: FACULTY/STUDENT MENTOR PROGRAM: EFFECTS ON ACADEMIC PERFORMANCE AND RETENTION Author(s): CAMPBELL, TA; CAMPBELL, DE Source: RESEARCH IN HIGHER EDUCATION, Volume: 38 Issue: 6 Pages: 727-742 DOI: 10.1023/A:1024911904627 Published: DEC 1997	27	1.69
76	Title: SOMEBODY TO COUNT ON - MENTOR/INTERN RELATIONSHIPS IN A BEGINNING TEACHER INTERNSHIP PROGRAM Author(s): ABELL, SK; DILLON, DR; HOPKINS, CJ; et al. Source: TEACHING AND TEACHER EDUCATION, Volume: 11 Issue: 2 Pages: 173-188 DOI: 10.1016/0742-051X(94)00025-2 Published: MAR 1995	27	1.5
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78	Title: BEING AND BECOMING A MENTOR: SCHOOL-BASED TEACHER EDUCATORS AND TEACHER EDUCATOR IDENTITY Author(s): BULLOUGH, RV Source: TEACHING AND TEACHER EDUCATION, Volume: 21 Issue: 2 Pages: 143-155 DOI: 10.1016/j.tate.2004.12.002 Published: FEB 2005	24	3
79	Title: FACULTY MENTORING FACULTY IN A PUBLIC UNIVERSITY Author(s): SANDS, RG; PARSON, LA; DUANE, J Source: JOURNAL OF HIGHER EDUCATION, Volume: 62 Issue: 2 Pages: 174-193 DOI: 10.2307/1982144 Published: MAR-APR 1991	24	1.09
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2	Title: MENTORING AT WORK: DEVELOPMENTAL RELATIONSHIPS IN ORGANIZATIONAL LIFE Author(s): KRAM, K. E. Published: Glenview, IL: University Press of America 1985	2291	X	X	
3	Title: EVERYONE NEEDS A MENTOR: FOSTERING TALENT AT WORK Author(s): CLUTTERBUCK, D., DEVINE, M., & BEECH, H. Published: London, Institute of Personnel Management UK1991	372		X	
4	Title: LEARNING ALLIANCES: TAPPING INTO TALENT Author(s): CLUTTERBUCK, D. Published: London, UK, Institute of Personnel and Development 1998	63		X	
5	Title: MENTORING EXECUTIVES AND DIRECTORS Author(s): CLUTTERBUCK, D., & MEGGINSON, D. Published: Oxford, UK: Butterworth-Heinemann 1999			X	X
6	Title: VIRTUAL COACH, VIRTUAL MENTOR Author(s): CLUTTERBUCK, D., & HUSSAIN, Z. Published: Charlotte, NC Information Age Pub 2009			X	X
7	Title: THE SITUATIONAL MENTOR: AN INTERNATIONAL REVIEW OF COMPETENCES AND CAPABILITIES IN MENTORING Author(s): CLUTTERBUCK, D. & LANE, G. Published: Burlington, VT, Gower 2004	35	X	X	
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9	Title: The mentor's guide: Facilitating effective learning relationships Author(s): ZACHARY, L. J., & DALOZ, L. A Published: San Francisco, CA: Jossey-Bass 2000	313		X	
10	Title: CREATING A MENTORING CULTURE: THE ORGANIZATION'S GUIDE Author(s): ZACHARY, L. J. Published: San Francisco, CA: Jossey-Bass 2005	99		X	X
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12	Title: MENTORING IN ACTION: A PRACTICAL GUIDE Author(s): MEGGINSON, D., & MEGGINSON, D. Published: London, UK, Kogan Page 2005	185		X	
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14	Title: FURTHER TECHNIQUES FOR COACHING AND MENTORING Author(s): MEGGINSON, D., CLUTTERBUCK, D., Published: Amsterdam, NL: Butterworth-Heinemann 2009			X	X
15	Title: THE MENTOR ADVANTAGE - PERCEIVED CAREER JOB EXPERIENCES OF PROTEGES VERSUS NON-PROTEGES Author(s): GARVEY, B., MEGGINSON, D., & STOKES, P. Published: London, Sage 2007			X	X
16	Title: THE ELEMENTS OF MENTORING Author(s): JOHNSON, W. B., & RIDLEY, C. R. Published: New York, NY: Palgrave Macmillan 2008	138		X	
17	Title: ON BEING A MENTOR: A GUIDE FOR HIGHER EDUCATION FACULTY Author(s): JOHNSON, W. B. Published: Mahwah, NJ, Lawrence Erlbaum 2007	94		X	X
18	Title: NEW DIRECTIONS IN MENTORING: CREATING A CULTURE OF SYNERGY Author(s): MULLEN, C. A., & LICK, D. W. Published: London, UK: Falmer 1999	114		X	
19	Title: A GRADUATE STUDENT GUIDE: MAKING THE MOST OF MENTORING Author(s): MULLEN, C. A. Published: Lanham, MD: Rowman & Littlefield Education 2006	78		X	X
20	Title: THE HANDBOOK OF MENTORING AT WORK: THEORY, RESEARCH, AND PRACTICE Author(s): RAGINS, B. R., & KRAM, K. E. Published: Los Angeles, CA: Sage 2007	82		X	X
21	Title: COACHING, COUNSELING & MENTORING: HOW TO CHOOSE & USE THE RIGHT TECHNIQUE TO BOOST EMPLOYEE PERFORMANCE Author(s): STONE, F. M. Published: New York, NY: American Management Association 2007	79		X	
22	Title: DESIGNING WORKPLACE MENTORING PROGRAMS: AN EVIDENCE-BASED APPROACH Author(s): ALLEN, T. D., FINKELSTEIN, L. M., & POTEET, M. L. Published: Chichester, U.K.: Wiley-Blackwell 2009	82		X	
23	Title: THE BLACKWELL HANDBOOK OF MENTORING: A MULTIPLE PERSPECTIVES APPROACH Author(s): ALLEN, T. D., & EBY, L. T. Published: Oxford, UK: Wiley-Blackwell 2010	73		X	
24	Title: EFFECTIVE TEACHING AND MENTORING Author(s): DALOZ, L. A. Published: San Francisco, CA: Jossey-Bass 1986			X	
25	Title: MENTOR: GUIDING THE JOURNEY OF ADULT LEARNERS Author(s): DALOZ, L. A. Published: San Francisco, CA: Jossey-Bass 2000			X	X

Appendix D

Mentoring Curriculum

Basics of Mentoring

1. Introduction to mentoring
Define mentoring within an organizational culture
Understand the elements and characteristics of effective mentorship
Recognize the needs of the adult learner into mentoring schemas
Distinguish the stages and types of mentoring relationships

2. Explain the purpose of the mentoring relationship
Identify the functions, processes, and outcomes of mentoring relationships
Distinguish effective mentoring relationship
Recognize dysfunctional mentoring relationships

3. Competences of effective mentors and mentees
Identify mentor's competences within stages and types of mentoring relationships
Recognize mentee's competences within stages and types of mentoring relationships
Review techniques to attract the right mentor/s – mentee/s
Construct a pool of potential mentors – mentees

4. Code of ethics, skills, and competencies
Differentiate between ethical and non-ethical behavior
Recognize appropriate mentor behaviors and boundary setting
Discover ways to build trust
Establish your own personal code of conduct

5. Develop interpersonal relationship skills
Define various types of interpersonal relationships
Develop techniques to relate positively with others
Learn how to build and end relationships constructively

6. Manage the mentor – protégé relationship
Develop goals for the mentoring relationship
Identify tools for mentor evaluation
Develop a mentoring agreement
Practice mentoring based upon a developed plan

7. Develop communication strategies
Identify factors of successful communication
Examine communication challenges that mentors face
Understand the power of nonverbal communication
Define interpersonal skills in differing contexts
Apply effective communication skills

8. Sharpen listening skills

Apply effective response styles in conversation
Practice communication skills
Test listening comprehension

9. Appraise evaluation & feedback skills
Demonstrate self-evaluation skills
Develop skills to give and receive feedback
Appreciate the value of mentor feedback

10. Explain the power of emotional intelligence in mentoring relationships
Explore the theory and practice of emotional intelligence
Explain the power of emotional intelligence
Estimate the participant's abilities related to emotional intelligence
Recognize and regulate emotions
Develop empathy skills

11. Synthesize self-awareness & personal values
Develop self-awareness through self-disclosure
Examine personal values
Describe how critical thinking & learning styles predict goals & career choices

12. Appraise self-management skills
Understand what can cause stress and its symptoms
Learn methods to reduce, prevent and cope with stress
Understand one's own issues when it comes to time management
Discover and apply effective time management strategies

13. Motivate self and others
Describe the principles of motivation
List tips and strategies for motivating protégés
Understand the importance of self-evaluation

14. Exhibit conflict management skills
Identify potential difficulties & conflicts
Increase conflict prevention awareness
Practice conflict management strategies
Demonstrate effective use of negotiation techniques

15. Explore Diversity concepts and issues
Identify belief systems about diversity
Understand generational differences
Identify potential diversity issues in mentoring relationships

16. Appreciate diversity and respect diverse perspectives
Recognize personal biases
Recall successful communication strategies across cultures

Identify factors of personal diversity

17. Cultivate Cultural Awareness

Develop awareness of cultural bias
Develop intercultural communications skills
Develop workplace cultural awareness
Identify factors of global cultural values

18. Course Evaluation

Mentoring Competences and Skills

Career Development
1. Identify & Construct Goals
Identify SMART goals
Choose goals within the context of the mentoring relationship
Construct personal, academic and career goals

2. Incorporate Strategic Planning
Develop time-specific strategies and activities to achieve personal and professional goals
Develop a work plan to achieve personal and professional goals

3. Practice Resume Building & Interviewing Skills
Apply effective techniques to resume creation
Demonstrate professional etiquette
Role-play the initial mentor interview
Demonstrate effective job interviewing skills

4.Explore Networking
Identify alternative mentors
Research and list goal-related networking opportunities
Demonstrate assertive behavior
Display appropriate social networking behavior

Leadership
5. Understand basics of Leadership
Identify different leadership styles
Identify management styles
Use tools to assess personal style of leadership
Develop expertise needed for time management

6. Integrate Leadership Development & Future of Work
Understand the foundation of leadership skills
Identify personal leadership style and growth areas
Identify skills required for the future of work

7. Assess Your Team Player Style
Identify methods for team development and team dynamics
Distinguish the stages of team development
Determine your team player style
Reflect on team player abilities

8. Develop Negotiation Skills
Evaluate negotiation strategies
Recognize stages of negotiation
Identify personal style of negotiation

9. Incorporate Mediation Practices
Identify multiple mediation practices
Develop techniques to deal with conflict in immediate and extended relationship circles
Practice facilitating a mediation session

10. Manage Change in Life and Work
Develop insight into relationship to change
Discuss the attributes of transitions

Coaching
11. Explain Coaching and the Role of the Coach
Identify traits of a good coach
Differentiate coaching from other developmental relationships

12. Understand Ethics of Coaching, Coaching Agreements and Boundaries
Define general ethical positions
Develop coaching agreement
Establish coaching boundaries

13. Identify Qualities/Skills of Successful Coaches
Identify the traits of a good coach
Develop skills to be a successful coach
Practice successful communication methods

14. Personalize Coaching Techniques
Understand steps needed to personalize coaching
Develop techniques for successful coaching practices
Identify personal coaching style

Counseling
15. Recognize Counseling and its Importance
Differentiate counseling from other forms of therapy
Identify situations where counseling is necessary
Develop appropriate steps when counseling is needed

Advisement

16. Recognize Roles and Limitations of Advisement

Determine the roles and responsibilities of an advisor
Define the boundaries and limitations of advisement

Transformational Learning

17. Exhibit Transformational Learning Skills

Develop critical reflection techniques
Identify transformational leadership style
Identify skills required for the future of work
Apply learned techniques

18. Course Evaluation

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