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Learners and E-learning

A qualitative inquiry into the existing research on
learners' needs in online learning

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Abstract:

The purpose of this qualitative inquiry is to analyze the literature on the topic of learner
needs in distance learning from the perspective of the student. All research studies,
surveys, and case studies were considered as long as they satisfied the following two
conditions: a) they were published in a peer-reviewed professional journal and b) they
reported on findings obtained from student feedback. Attention was given to those
scholarly publications that reported on American community college students or
undergraduate students' feedback of their needs in e-learning. The theoretical foundation
underlying the inquiry came from Malcolm Knowles's (1977) Principles of Andragogy
and the social constructivist theory. The examined research papers and studies confirm
that Knowles's principles of adult learning remain to be a valid theoretical approach in
online environments as well. Finally, learner feedbacks point to the validity of the
principles of social constructivist theory as the most likely approach to online learning.

Introduction

Online learning is increasingly becoming the norm and part of the mainstream in higher education. As universities and community colleges across the U.S. continue to offer a growing number of online courses, interest in the field of distance learning and distance learners is growing. Much research is devoted to learner assessments, solid instructional practices as well as learner outcomes and satisfaction. One important avenue for learning about learner needs is to look at the feedback students themselves provide about successful and effective e-learning. The inquiry was driven by the question: what are community college learners' needs in online environments as explained by the students? The author considers it crucial to understand learner needs and provide means via course design and instruction to meet them. The underlying assumption is that a learner-centered online program will foster meaningful learning for its participants. Thus, this qualitative inquiry into the data available about learner feedback attempts to review and interpret data that will be useful in designing and maintaining a quality online distance learning program at Central New Mexico Community College (CNM).

Constraints and limitations

Looking at the efficacy of student learning based on learner feedback in online learning is particularly difficult because much of the research done in the late 1990s and early 2000s is somewhat antiquated. Technology has been changing so fast that many of the obstacles and reasons for dissatisfaction reported by earlier studies have been rendered obsolete by advances in technology. Course management systems (CMS) today provide a level of interaction unimaginable a few years ago. Further successful analysis of undergraduate and community college students' experiences in online setting is

hindered by the scarcity of available data. For example, several inquiries looking for peer-reviewed scholarly articles on the topic of supporting non-traditional students in online environment returned only one result: a call for papers on the topic (2005). Much of the research focusing on students' perspective and feedback in online learning has been done with graduate students. This is also true for data available from around the globe. Evidence is strong that mature, motivated students perform better in online courses because they are better suited for constructivist learning environments. (Rintala, 1998 cf. Perez Cereijo, 2006). Consequently, feedback given by graduate students is valuable, but it may not capture all the problems that undergraduate students grapple with in online learning environments.

Interpretation of available data is further complicated by the multi-cultural background and diversity of researchers and research subjects. Looking at a wealth of data representing diverse cultural backgrounds is usually desirable; however, in the context of student satisfaction in e-learning, cultural diversity must be considered with caution. There is a strong possibility that e-learners in Taiwan or Hong Kong have a different idea about learner needs, success, and satisfaction than e-learners in the American Southwest who attend a local community college. Student perceptions of what constitute learner needs and learner outcomes are colored by one's culture. Further inquiry is required to establish the extent to which research conducted on other continents of the world is applicable to non-traditional American students. As a result, the current inquiry initially reviewed but did not incorporate the findings of studies where: a) the subjects were graduate students or beyond their bachelor's degree and b) the subjects came from an educational system that is markedly different from the American

educational system in its student –teacher interaction and communication. After a careful

review of the available data, the author decided to incorporate a handful of research

papers that reported on student feedback of American graduate students because there

were not enough studies done with solely undergraduate and community college students.

Theoretical Framework

Malcolm Knowles's principles of adult learning are widely recognized as valid

approaches to understand the needs of adult learners. Knowles (1977, cf. Thompson and

Deis) contends that there are four core principles driving andragogy:

1. *His [adults] self-concept moves from one of being a dependent personality toward one of being a self-directed human being.*
2. *He accumulates a growing reservoir of experience that becomes an increasing resource for learning.*
3. *His readiness to learn becomes oriented increasingly to the development tasks of his social roles.*
4. *His time perspective changes from one of postponed application of knowledge to immediacy of application, and accordingly his orientation toward learning shifts from one of subject-centeredness to one of problem-centeredness (p. 39).*

The feedback provided by e-learners offers unmistakable evidence that the principles of

adult learning do not change in online environments. Learners may require a different

type of support and differently designed course structure to perform well in an online

environment, but their needs as adult learners do not change. Since adults prefer to build

on prior knowledge and thrive on relevant, problem-based learning experiences,

approaching distance learners' needs from a constructivist perspective seems appropriate.

Learner feedback examined in this inquiry supported the relevancy of constructivist and

adult learning principles as well as the need to approach e-learners' needs from the social

constructivist perspective. Research shows that learning is a social endeavor, and

individual construction of knowledge relies heavily on collaboration and interaction.

Social constructivism – an outgrowth of constructivist learning theory – defines learning as a "negotiation of shared meaning through social interaction. (…) Discourse and articulation are considered to be the basis of learning" (Fung, 2004). Learners indicated a strong need for social interaction and social presence in online courses.

<div align="center">**Findings**</div>

All research papers considered for this inquiry reported on findings given by American students. Five research papers constitute the core of the data because the subjects of those research papers closely match the type of students that are likely taking online courses at CNM. These were works by Sullivan (2001), Eom &Wen (2006), Wheeler (2006), Young (2006), and DeTure (2004). The findings of four additional research papers were incorporated even though the feedback came from graduate students (Northrup, 2002; Howland & Moore, 2002; Perez Cereijo, 2006; Stodel & Thompson & MacDonald, 2006). These studies were considered because their focus on student feedback made them particularly relevant to the questions raised by this inquiry. Three themes emerged as key components of learner needs in online courses: 1) the importance of self-directed learning skills; 2) online interaction that supports learning; and 3) motivating students. All three are important components of Knowles's principles of adult learning.

1) **The importance of self-directed learning skills**

The students' feedback revealed that self-management, self-efficacy, and the ability to direct one's own learning are keys to learner success in online environments (Howland & Moore, 2002; Northrup, 2002; Perez Cereijo, 2006). Self-independence in the online environment is approached from the duality of independent vs. dependent learners.

Independent learners are comfortable in taking charge of their own learning; they can assess their progress and find ways to seek and get help when needed. Dependent learners, on the other hand, rely heavily on the instructor in order to make sense of course material and to guide their learning; they need more course structure and guidance from the instructor (Howland & Moore, 2002). Students recognize this factor in their own learning even though that is not the main consideration when they sign up for online courses.

Students choose to take online courses because they need the flexibility that online learning provides. Work hours and distance from campus was the main reason why both graduate and community college students chose to take online courses (Perez Cereijo, 2006; Sullivan, 2001). This has significant implications for CNM's distance learners and their need for scaffolding and instructor presence in online courses. Similarly, students at CNM primarily sign up for e-courses because it allows them to pursue their academic goals (they cannot attend face-to-face classes), not because they recognize that e-learning is better suited to their cognitive learning style. Students need the flexible schedule and do not ponder the challenges of the online environment until they are faced with its difficulties. This finding has important implications for course design and learner support.

Learner feedback has shed some light on the gender differences as well regarding online learning and self-directed learning skills. Female students consistently enroll in online courses in greater numbers than males – even though they tend to be more dependent learners, and they know it. Sullivan's study aids in understanding CNM's e-learners because it reports the experiences of community college students in the U.S.

while also looking at gender differences. This study is a rare bird in the field and confirms the prediction that male and female students face different difficulties and experiences in online setting. One important difference in male-female online learning pertains to self-directed learners. While both men and women acknowledged the importance of self-direction and self-pacing in e-learning, the female students mentioned it as a negative factor. 10% of the female responders mentioned it as negative while none of the male responders perceived self-directed learning as a negative attribute. Sullivan (2001) concludes that "male students appear to be more comfortable in working independently in an online classroom than their female counterparts (p. 814). Sullivan cites Wood (1994) in further contemplating the data and suggests that "traditional social conditioning" may prepare men better for the independent work and low social context encountered in online courses, and may explain why women prefer more interaction and social presence than men. Sullivan's conclusion has implications for CNM's e-learners who are predominantly female.

Furthermore, Howland & Moore exposed that dependent learners need a high level of feedback and interaction from the instructor. Low instructor presence was a barrier in dependent learners' case, who did not have their needs met and felt that "instructors were shirking their responsibilities" (Howland & Moore, 2002, p. 189). By the same token, learners who depended heavily on instructor guidance for their learning were more likely to struggle with problem-based or project-based assignments, and "needed structure and continuous feedback in order to feel comfortable with their learning" (p. 189). Learning to be an online learner (i.e. being self-directed and autonomous) was an important criterion for graduate students as well – as reported by Stodel, Thompson & MacDonald

(2006). Learners were insecure about their learning in the absence of regular contact with the instructors and worried about "missing something".

Finally, Young's research (2006) emphasizes adult learners' underlying need to be self-directed. Young summarized and interpreted feedback on online learning given by 199 students (a mix of undergraduate and graduate students) at a large Western university. 77% of the responders were female, which makes the results of the study very relevant for understanding CNM students' distance learning needs. The top priority for students was adapting to students' needs and using meaningful examples. Both are crucial to adult learners based on Knowles's principles and both aid students in becoming more independent and self-directed in their learning.

2) Online interaction that supports learning

Learner feedback was very clear on interaction and social presence in online learning: its presence is crucial in every respect. The author adopts Moore's approach (1986, cf. Moore & Kearsley, 2005) to classify interaction as a three-way street in online environments: (a) learner-content, (b) learner-instructor, and (c) learner-learner interactions. The majority of research studies reviewed in the present inquiry adopted Moore's framework for classifying online interactions. Learner feedback is very conclusive on the need for meaningful interaction; students reported an increased need for timely feedback from the instructor (more important than feedback from peers), and a clear need to interact with peers as well. Interaction helped break down the feelings of loneliness and isolation that many e-learners feel.

Students need the instructor's social and cognitive presence and involvement, and appreciate an opportunity to be part of a community of learners (Young, 2006; Northrup,

2002; Howland & Moore, 2002). Northrups's study highlighted the three most important

learner needs in the context of interaction and communication: "Overall, forming the

community of learners, collaborating with peers, and getting feedback from the instructor

were the most highly rated indicators of this attribute" (2002, p. 223). Learners also

stressed the importance of getting timely responses from peers and the instructor as

conducive to learning. The learners' feedback emphasizes that interaction is an important

variable in online learning (it has a clear impact on student learning and satisfaction) and

as such it should be carefully designed and built into any online course.

Young (2006) found that students expressed a need for the instructor's social and

cognitive presence. Learners reported the most success when the instructors were

"visibly" involved in learning, actively engaging their students in online collaboration

and interaction. Lack of instructor presence was perceived as a barrier to learning. In light

of the needs of instructor-dependent learners, these needs make a lot of sense. Students

not only benefit from the guiding feedback of the instructor, but use the instructor's

cognitive and social interaction as a model of how to interact in an online environment.

Thus, lack of instructor presence robs learners of much opportunity for learning.

Communicating effectively and showing concern for student learning were also

top-rated factors in Young's study. Stodel et al. (2006) reported that interaction was very

important to learners in their study. When learners reflected on what was missing from

online learning, they included "perceiving and being perceived by others" as well as

getting to know others" as aspects of face-to-face learning that were missed in e-settings

(p. 5). All these findings accentuate the fact that from the learners' perspective

interaction and *communication* are elemental in online learning.

3) Motivating students

Motivating students is an important factor in any educational setting; however, it is essential in online learning. Student feedback reveals that students need additional motivation in e-settings. According to Wheeler (2006), "support needs in distance education link directly to individual motivation (p. 175). Young's study reveals that motivating students to do their best is the third most important factor on students' list. "An effective instructor can provide corrective feedback and encouragement, motivating students to stay on task and to achieve the learning goals" (2006, p. 73).

Eom & Wen's empirical investigation explains that "Students' motivation is a major factor that affects the attrition and completion rates in web-based courses and a lack of motivation is also linked to high dropout rates". Moreover, their investigation revealed that instructor feedback is a great motivating tool and a valuable instructional tool as well. Finally, "metacognitive feedback can induce students to become self-regulated learners". As the research has shown the ability to self-pace and regulate one's own learning is the most valuable tool in online learning.

Conclusion

The findings above have great relevancy for the distance learning program at CNM. The results of these studies suggest that CNM's faculty and staff involved in distance education (i.e. both teaching and learning) should consider and incorporate measures that promote greater learner autonomy and independence, scaffolding that allows for quality interaction in all three domains defined by Moore (Moore & Kearsley, 2005), and creating a cognitive, social, and teaching presence that motivates students and paves the way for student learning and satisfaction.

References

Call for Papers. (2005, Summer). *Technical Communication Quarterly*, Retrieved September 5, 2007, from Academic Search Complete database.

DeTure, M. (2004). Cognitive style and self-efficacy: Predicting student success in online distance education. *American Journal of Distance Education*, *18*(1), 21-38. Retrieved October 8, 2007, from Academic Search Complete database.

Eom, S. & Wen, H. (2006). The determinants of students' perceived learning outcomes and satisfaction in university online education: An empirical investigation. *Decision Sciences Journal of Innovative Education*, *4*(2), 215-235. Retrieved September 18, 2007, from Education Research Complete database.

Fung, Y. (2004). Collaborative online learning: interaction patterns and limiting factors. *Open Learning*, *19*(2), 135-149. Retrieved October 8, 2007, from Academic Search Complete database.

Howland, J., & Moore, J. (2002). Student perceptions as distance learners in Internet-based courses. *Distance Education*, *23*(2), 183-195. Retrieved October 3, 2007, from Academic Search Complete database.

Lorenzetti, J. (2003). Understanding adult learners: Key to successful programs. *Distance Education Report*, *7*(23), 4-6. Retrieved October 8, 2007, from Education Research Complete database.

Lorenzetti, J. (2005). Lessons learned about student issues in online learning. *Distance Education Report*, *9*(6), 1-4. Retrieved September 4, 2007, from Education Research Complete database.

Moore, M. & Kearsley, G. (2005). *Distance education: A system's view*. 2nd ed. Thomson Wadsworth.

Northrup, P. (2002). Online learners' preferences for interaction. *Quarterly Review of Distance Education*, *3*(2), 219. Retrieved October 3, 2007, from Academic Search Complete database.

Perez Cereijo, M. (2006). Attitude as predictor of success in online training. *International Journal on E-Learning*, *5*(4), 623-639. Retrieved October 8, 2007, from Education Research Complete database.

Peterson, C., & Caverly, D. (2006). Techtalk: What students need to know about online discussion forums. *Journal of Developmental Education*, *29*(3), 40-41. Retrieved October 6, 2007, from Academic Search Complete database.

Stodel, E., Thompson, T., & MacDonald, C. (2006). Learners' Perspectives on what is missing from online learning: Interpretations through the community of inquiry framework. *International Review of Research in Open & Distance Learning*, *7*(3), 1-24. Retrieved October 30, 2007, from Education Research Complete database.

Sullivan, P. (2001). Gender differences and the online classroom: Male and female college students evaluate their experiences. *Community College Journal of Research & Practice*, *25*(10), 805-818. Retrieved September 18, 2007, from Academic Search Complete database.

Wheeler, S. (2006). Learner support needs in online problem-based learning. *Quarterly Review of Distance Education*, *7*(2), 175-183. Retrieved October 3, 2007, from Academic Search Complete database.

Young, S. (2006). Student views of effective online teaching in higher education. *American Journal of Distance Education*, *20*(2), 65-77. Retrieved September 8, 2007, from Academic Search Complete database.