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An Experiment in Second-Language Instruction of Beginning Indian Children in New Mexican Public Schools

LeRoy Condie

SECOND-LANGUAGE INSTRUCTION OF BEGINNING INDIAN CHILDREN IN NEW MEXICO PUBLIC SCHOOLS — CONDIE

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AN EXPERIMENT IN SECOND-LANGUAGE INSTRUCTION OF BEGINNING INDIAN CHILDREN IN NEW MEXICO PUBLIC SCHOOLS

By

LeRoy Condie

A Thesis

Submitted in Partial Fulfillment of the

Requirements for the Degree of

Doctor of Philosophy in Education

The University of New Mexico

1961

This dissertation, directed and approved by the candidate's committee, has been accepted by the Graduate Committee of the University of New Mexico in partial fulfillment of the requirements for the degree of

DOCTOR OF PHILOSOPHY

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DEAN

May 31, 1961
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Committee

Miles V. Zintz
CHAIRMAN

Chester C. Travelstead

Henry C. Ellis

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ACKNOWLEDGMENTS

It was my good fortune, in February, 1958, to be accepted as a research assistant at the University of New Mexico. For almost two years following that date certain members of the College of Education engaged in a research program titled: "Problems of Adjustment of Indian and Non-Indian Children in the Public Elementary Schools of New Mexico." The study was made possible through a grant from the United States Office of Health, Education, and Welfare. It was within the framework of the research program that the field study reported in this paper was completed.

I am indebted to Dr. Miles V. Zintz, my major professor and the director of the research program, for his perception in identifying the need for an experiment in a study of second-language teaching in beginning classrooms enrolling Indian children. Under his guidance the format of the experiment emerged and the steps necessary to implement the study were formulated. I cannot thank too warmly our colleagues on the research staff: Dr. Horacio Ulibarri, Mr. Hitoshi Ikeda and Dr. Carol Charles. I am particularly remembering the agreeable fraternal

relationship that developed as we traveled together in the field, but I am not forgetting the long hours they spent in assisting in giving the individually administered Picture Vocabulary Test to scores of Indian children.

Education personnel in the several schools cooperating in the study must go unnamed. Superintendents, primary supervisors and principals were cooperative and supportive. It is but natural that we are disposed to give special mention to the teachers who participated in the experiment. They seemed never to lose enthusiasm, either for the monthly workshops held on the University campus, or for trying out the techniques recommended for their classrooms.

The kindergartens involved in the study were under the jurisdiction of the Division of Indian Education of the New Mexico State Department of Education. The endorsement of the director of the Division, Mr. Charles S. Owens, was both necessary and valuable to the accomplishment of the field research.

Serving on the thesis committee, in addition to Dr. Zintz, were Dr. Chester C. Travelstead, Dean of the College of Education, and Dr. Henry C. Ellis of the Department of Psychology. At the beginning of the experiment they counseled me on the research design; they made interim

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CHAPTER I

THE PROBLEM AND DEFINITIONS OF TERMS USED

A number of considerations combine to lend a unique quality to the problem of teaching English to Indians in the American Southwest.

Relatively few members of Southwestern tribal groups become fluent in speaking English.

There is a sense of urgency in the need for Indians to gain facility in English. Whereas, for the modern urban youth, learning a second language such as French may be merely an educational elective or a scholarly attainment, the Indian is in a different predicament: his native tongue represents a tiny minority in an English-speaking society.

For decades (more specifically, since about 1890, when Indian education got underway on a systematic basis) teachers of Indian children have confidently proceeded on the theory that children can learn the second language "just as they learned the first (native) language." It should be apparent by now that this is not so.

The timetable of Indian acculturation, interested

agencies hold, is off schedule. The expectations, indeed the predictions, of eighteenth and nineteenth century observers that the Indian problem would "disappear," that the Indian population would speedily blend with the majority population, have not been realized. Indian groups, particularly in the Southwest, remain notably intact. Learning, or failing to learn, the language of the host society, has something to do with this delay.

The situation is further complicated by the movement of Indian children from the Bureau of Indian Affairs schools to the public schools in the Southwest. While it is questionable whether Indian Service teachers used the most effective approach in teaching English to their pupils, it cannot be denied that they possessed a great fund of know-how in accommodating the Indian child. They took the problem in stride; they accepted the Indian child's limitations, and they considered the many difficulties--the slow pace--to be all in the day's work. Many public school teachers, on the other hand, are puzzled by this new demand; they, too, admit to being less than expert in teaching a foreign language.

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psychological repercussions; others hail bilingualism as contributing to personality integration. But even the skeptics are quick to agree that when failure to acquire the prevailing tongue operates to keep the individual or group in marginal status, there is no alternative to learning the language of the host society.

I. THE PROBLEM

Statement of the problem. It was the purpose of this study to determine whether, and to what degree, the quality of instruction of non-English-speaking beginning Indian children could be improved by the (1) elaboration of the curriculum of selected beginning classrooms to provide wider learning experiences for the children, and (2) acquainting the teachers of these classrooms with aids, skills and techniques judged to be effective in teaching oral English to Indian children and in promoting readiness for reading.

The study, it is seen, was in actuality an experiment in curriculum building and teacher education focused upon a specific instructional problem, namely: teaching a second language to Indian children.

Hypothesis of the study. It was the hypothesis of this study that, when the curriculum is elaborated to provide multiple learning experiences for the children, and when the teacher is trained in the application of techniques selected for their effectiveness in teaching oral English and reading readiness, a significant increment in the achievement of the pupils in learning English and in readiness for reading will result.

Importance of the study. Inferred in the introductory statement was the unusual nature of the task confronting the teacher of Indian children. Yet the novice, assigned to teach the English language to Indian children, finds no firm source of research, theory, or methodology that can be accepted as authoritative for this situation. The alternative is to improvise a program. As a result, methods of second-language teaching vary markedly from one classroom to another. This is to say, there is as yet no agreed-upon method, no best method, of teaching English as a second language to Indian children in the Southwest. No claim is made that the present study is that source, or that best method; it is at most an exploration of the problem.

<u>Usefulness of the study</u>. It was the hypothesis of this study that, when the experiment is elaborated to provide multiple learning experiences for the children, and when the teacher is trained in the application of techniques selected for their effectiveness in teaching oral English and reading readiness, a significant improvement in the achievement of the pupils in learning English and in readiness for reading will result.

<u>Limitations of the study</u>. It arose in the introductory statement, was the unusual setting of the task, confronting the teacher of Indian children, the novice, assigned to teach the English language to Indian children, with no prior source of information, theory, or methodology that can be accepted as authoritative for this situation. The alternative is to involve a process, as a result, analysis of second-language teaching vary markedly from one classroom to another. This is to say, there is as yet no agreed-upon method, no best method, of teaching English as a second language to Indian children in the Southwest. So stated is much the pressing reason is that source, or that best method. It is at least an exploration of the problem.

Delimitation of the study. This study focused upon the problems of teaching a second language to Indian children in the public schools in the American Southwest. It was particularly oriented toward the primary level in those schools. Teaching English to pupils at upper elementary and secondary levels, and to adult Indians, was treated only by implication.

II. DEFINITIONS OF TERMS USED

The American Southwest. This term is used provincially. It refers in this paper to New Mexico and Arizona. Southwestern Tribal Groups refers to Indian tribes resident in those two states.

Bilingual. In its strict interpretation this term refers to a person who is equally fluent in two languages. Linguists, pointing out that few people have such facility, prefer to speak of degrees of bilingualism. In this report the term is commonly used to refer to children who, speaking a tongue other than English, are attempting to learn the latter.

Non-English-speaking child. Semantically this term would seem to be precise. Many Indian children, however, described by their teachers as non-English-

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Kindergarten. This is a classroom providing an initiatory experience for five-year-old children who will, usually, enter into regular classwork the following year. Emphasis is upon social development, although in recent years reading readiness activities, and even reading, have been introduced into some kindergarten programs.

Beginning classroom. An Indian child may enter school in a kindergarten, a pre-first, or a first grade. Any one of these may then be, for him, the beginning classroom. Where a kindergarten is available he may enter at age five or older. The pre-first level, while offering a program much like the kindergarten, requires the child to be six (or nearly six) years of age. In some situations Indian children are inducted directly into first grade. Classrooms involved in the present study were kindergarten or pre-first.

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Host society. This term is used in this paper in preference to the term dominant society. It refers to the American community.

Anglo. This term is used provincially to designate the individual who is neither Indian nor of the Spanish ethnic group (indigenous) to the Southwest.

Vocabulary list. This term is used interchangeably, in this paper, with word list. Word lists, ranging in number of items from a few hundred to many thousands, have been compiled by numerous individuals. Proceeding, usually, from the assumption that the frequency with which a word appears, for example, in children's conversation, establishes the usefulness of that word. Compilers have commonly arranged their lists in an ascending order of difficulty according to the frequencies tabulated. Authors and publishers of textbooks have relied heavily upon word lists to verify the appropriateness of words for a designated scholastic level.

IV. ORGANIZATION OF THE REMAINDER OF THE REPORT

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CHAPTER II

REVIEW OF THE LITERATURE

A broad understanding of the problem of teaching English to Indian children demands inquiry into a number of areas that may at first glance seem far afield. The following questions suggest some of these areas:

If bilingualism is one factor in Indian acculturation, what are other factors?

What have been some approaches to bilingualism in the American Southwest?

What is the role of the kindergarten in bilingualism? in child development? in speech development?

What is the place of vocabulary lists (lists of "most useful words") in teaching the second language?

What is the status of development of instruments designed to measure bilingualism?

I. LITERATURE ON BILINGUALISM AND INDIAN ACCULTURATION

Reasons for the Delay in Indian Acculturation

There has been perennial debate as to the reasons for the lengthening timespan required for the assimilation of America's Indian groups. A century ago it was

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optimistically predicted that, given a plot of ground, a plow and a team of horses, the Indian would speedily forget his "savage" ways. Imposed domesticity worked no such magic, however, and those concerned with Indian affairs looked elsewhere for a solution of the problem. Toward the close of the nineteenth century education had caught the fancy of Indian administrators; surely education must be the key to acculturation. Thompson quotes a prophet of that day:

> If a sufficient number of manual labor schools can be established to give each youth the advantages of three to five years of schooling, the next generation will hear nothing of this difficult problem, and we may leave the Indian to himself.[1]

Again the social diagnosticians were proved wrong. Education offered no quick route to acculturation. The Indian seemed to be an exception to the melting-pot phenomenon. Since the discovery and settlement of the continent, numerous representatives of Western European ethnic groups have migrated to America, soon to become

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Observes McNickle:

> It is a source of continuing surprise that the American Indians have not adjusted their lives to the national life, that their special problems persist, and that their ethnic identity does not dissolve.[2]

Voght, too, notes that the timetable of Indian assimilation is behind schedule:

> By the mid-twentieth century it has become apparent to social scientists studying the American Indian that the Indian population is markedly increasing and that the rate of basic acculturation to . . . American ways of life is incredibly slower than our earlier assumptions led us to believe.[3]

Going beyond mere speculation, a number of hypotheses have been advanced to account for the persistence of Indian cultures in the face of pressures from the host society. Examples of these postulates are:

> Isolation of Indian populations on remote reservations has insulated the Indians from acculturative influences.
>
> "Forced" acculturation, when it does not quickly lead to absorption, causes the Indian group to entrench itself, and to develop patterns resistant to acculturation.

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> Material aspects of an Indian culture may yield, but certain implicit values--the "core" culture--tend to persist under even enormous impact.
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> Indian societies have developed a kind of communal "corporate structure." This structure possesses remarkable tenacity. As long as it is maintained, full acculturation is not realized; when it is fractured, disorganization, then perhaps acculturation, follows.
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> Discrimination may have been more operative than is admitted or realized.[4]

These postulates do not exhaust the list of possible reasons for the delay in Indian acculturation. One more may be suggested: Could it be that the Indian, who by now has had quite ample time to appraise American society, has decided that he simply does not like what he sees? Americans, in their eagerness to uplift underprivileged peoples at home and abroad, are loath to consider that American society may not have universal appeal. Sapir, brilliant student of Indian culture, pointed out that the host society may be unrewarding to the Indian:

> . . . the sensitive ethnologist who has studied an aboriginal civilization at first hand . . . is most impressed by the frequent vitality of culture in less sophisticated levels. He cannot but admire the well-rounded life of the average participant in the civilization of

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> a typical American Indian tribe; the firmness with which every part of that life--economic, social, religious and aesthetic--is bound together into a significant whole in respect to which he is far from a passive pawn . . . [but] when the political integrity of his tribe is destroyed by contact with the whites and the old cultural values cease to have . . . continued vitality, the Indian finds himself in a state of bewildered vacuity . . . . Even if he succeeds in making a fairly satisfactory compromise with his new environment . . . he is apt to retain an uneasy sense of the loss of some vague and great good, some state of mind that he would be hard put to it to define . . . . What has happened is that he has slipped out of the warm embrace of a culture into the cold air of fragmentary existence.[5]

It may be apparent by now that quite a number of factors have been operating to obstruct rapid progress in Indian assimilation. Nothing has been said as yet about the role of bilingualism--mastering the English language--in the acculturative process. The intent of the foregoing discussion has been to demonstrate that no <u>one</u> factor, for example, the language handicap, has been the sole deterrent to assimilation.

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Language as a Conservative Factor in Acculturation

Attention is now turned to the relationship between bilingualism and acculturation. That there is a relationship, few would challenge. It may be as simple as the instance of an Indian finding himself unable to compete in the employment market in a modern urban community because he lacks facility in English, or it may be more fundamental: the phenomenon of entire tribes shunning the introduction of English (or Spanish) morphemes into the native tongue because of dislike of the intruding culture. (The foreign morphemes becoming symbols, as it were, of the foreign culture itself.) Voegelin comments on the determination of older generation Hopis to keep the native tongue free of borrowed morphemes:

> American Indian languages in Latin America and along the United States border often borrow as much as a third of their vocabulary from Spanish; the paucity of such borrowing in Hopi--either from English or from Spanish--is striking when compared with Yaqui, a language belonging to the same language family. . . . Instead of wholesale morpheme borrowing, the Indian languages north of the border reacted to the impact of acculturation, on the linguistic side, by innovating new words for new cultural items out of the resources of their native stock of morphemes.[6]

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[6]C. F. Voegelin, "An Expanding Language, Hopi," Plateau (Flagstaff: Northern Arizona Society of Science and Art, October, 1959), p. 33.

Spanish as a Contributing Factor in Assimilation

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[6]C. F. Voegelin, "An Expanding Language, Hopi," Plateau (Flagstaff: Northern Arizona Society of Science and Art, October, 1952), p. 22.

Voegelin gives an example: older generation Hopis declined to use the word beer; instead they innovated a vocabulary item by combining Hopi morphemes that, translated, mean urine-water.[7]

Dozier found interesting contrasts in morphemic borrowing between the Yaqui tribe (a Shoshonean-speaking group living astraddle the United States-Mexican border) and the Santa Clara Tewas of the upper Rio Grande valley. The former, Dozier theorized, found Spanish colonial culture congenial and borrowed liberally from the Spanish language, incorporating the morphemes into the Yaqui tongue. The Tewas found Spanish culture oppressive and permitted the introduction of few Spanish morphemes into the Tewa tongue:

> The Rio Grande Tewa . . . have resisted acculturation in language no less vigorously than in other aspects of their culture. Only a small portion of Tewa words are Spanish loanwords. Moreover, Tewa speakers tend to delete or restrict their usage in the presence of Spanish-speaking outsiders. The coinage of new words and the extension of old meanings to cover new cultural acquisitions are preferred to outright borrowings.[8]

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[7] Ibid.

[8] Edward F. Dozier, "Two Examples of Linguistic Acculturation," Language, 32:156, January, 1956.

Tonella gives an example: older generation people decided to use the word *bagre* instead they improvised a nonsensical idea by combining two morphemes that, translated, mean water-water.[7]

Dozier found interesting contrasts in morphemic borrowing between the Yaqui tribe (a Southwestern-speaking group living adjacent the United States-Mexican border) and the Santa Clara Tewa of the upper Rio Grande Valley, the former, Dozier observed, found Spanish foreign cultural concepts and borrowed literally from the Spanish language, incorporating the morphemes into the Yaqui tongue. The Tewa found foreign cultural concepts and permitted the introduction of few Spanish morphemes into the Tewa tongue:

> The Rio Grande Tewa . . . have avoided acculturation by borrowing no less objectionably than by other superficial ways. Only a small portion of Tewa words are Spanish loanwords. Moreover, Tewa speakers seem to define or classify their usage in the presence of Spanish-speaking outsiders. The joining of new words and the extension of old meanings to cover new cultural acquisitions are preferred to outright borrowing.

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[7] Ibid.

[8] Edward P. Dozier, "The Examples of Linguistic Acculturation," *Language*, 32:156, January, 1956.

By mid-twentieth century both Hopis and Tewas have yielded to practical considerations--it might be said, "to the facts of life"--and they are now among the most fluent Indians, in English, in the Southwest; but their steadfast determination that "old Hopi" and "old Tewa," the ceremonial tongues, shall not be compromised suggests the high value that a people may place upon the lengua madre. It further suggests the feeling of the people that as long as they can conserve the native tongue they have not lost their societal identity. And indeed this is so; the Santa Clara Tewas, progressive as they are, are still Tewas first, Americans second, and the Hopis are in many ways as tightly knit as ever.

It is difficult to assess the influence of this subjectivity, held by the parent and sensed by the child, about the native tongue, upon the Indian pupil's motivation toward learning the second language. It is naive to assume that this subjectivity accompanies the child, necessarily, to the classroom. Referring again to the Hopis, they are notably conservative. One village, in particular, was founded by a schismatic group that declared its enmity to white culture and withdrew from its neighbors who believed in peaceful coexistence with the white man.

By mid-twentieth century been Kola and Tevre have yielded to practical considerations--to might be said, "to the taste of life"--and they are now among the most fluent Indians, in English, in the Southwest; but could stereotypic lackadaisical "old Kopi" and "old Tewa," the ceremonial foreman, shall not be comprehended suggests the high value that a people may place upon the language magic. It further suggests the feeling of the people that as long as they can conserve the native tongue they have not lost their societal identity. And indeed this is so: the same clans Tewa, progressive as they are, are still Tewa first, American second, and the Tewa are in many ways as tribally bound as ever.

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The children of this village, then, might be expected to be diffident about learning English; yet they are true bilinguals, speaking English almost as readily as Hopi.

It would be convenient if it could be stated, categorically: acculturation proceeds apace with facility in the language of the host society. That is, maximum competence in English, maximum acculturation; minimum competence in English, minimum acculturation. There must indeed be a degree of validity in such a statement, but it is less than universally true. It was remarked at a recent conference of Indian educators that numerous communities of Indians now speak English as the first language, but the assimilation of these Indians into the host society has not been accomplished.

Language as the Vehicle of Culture

If it cannot be said that bilingualism--facility in the second language--assures successful transition into the host society, what then can be said of the relation between bilingualism and acculturation? It can be said that without nominal facility in the language of the host society the transient is unlikely to function at a high level in that society. Reference here is not limited to the small difficulties encountered in day-to-day

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Language as Ties Binding or Unbinding

If it cannot be said that bilingualism--facility in the second language--assures successful translation into the host society, what then can be said of the relation between bilingualism and acculturation? It can be said that without normal facility in the language of the host society the newcomer is unlikely to function at a high level in that society. Reference here is not limited to the small difficulties encountered in day-to-day

transactions in an urban community; rather, reference is to the role of language in what Spindler calls ". . . a basic psychological shift . . . a psychological transformation, a reformulation of personality in successful adaptation to the demands of the host society."[9] These, of course, are obscure terms, but Spindler explains: while an Indian may appear to be acculturated " . . . in the manifest aspects of the host culture--dress, language, religion, and so forth . . ."[10] he may yet be, psychologically, still an Indian. Absent, with him, is the personality configuration that distinguishes the member of the host society from one of the Indian society. Acculturation, it scarcely needs be pointed out, amounts to more than a superficial adoption of the artifacts and mannerisms of a culture. It requires, as Spindler implied, a reorientation of personality; when that is accomplished the person perceives phenomena as do the members of the host society; his values equate with those of the host society; his behavior is that of the host society. And these things

Thank God!

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are habituated. They require no volition. It is here that language plays a significant role.

A people's language is aptly termed by anthropoligists the culture bearer. There are many components of a culture, other than language, that combine to make that culture unique. Some of these are folkways, tools and weapons, child-rearing practices, and mysticism. Yet the essence of the culture, the transmissible aspect of the culture, is almost wholly borne by the language. It can confidently be said: know a language, know it well enough, and you know the culture. You may not embrace that culture but you will be comfortable within it. On the other hand it can be said with equal assurance: examine a culture, however minutely, but fail to know the language and you will not be at home in that culture. Says Malherbe:

> Language is not mere words. Each word is charged with associations that touch feelings and evolve thoughts. You cannot share these feelings and thoughts unless you can unlock their associations by having the key to the language. You cannot enter the heart and know the mind of a nation unless you have learned its speech.[11]

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In summary, it is seen that no single factor has been operating to delay the assimilation of America's Indian population. Even facility in the language of the host culture, strategic though it may be in the transition, is by no means the sole factor. Yet, it was pointed out, the likelihood of an Indian's functioning at a reasonably high level in the American community without an intimate knowledge of English, is small.

II. SOME APPROACHES TO BILINGUALISM IN THE SOUTHWEST

The American Southwest has been the scene of no little attention to problems of bilingualism. In much of New Mexico and parts of Texas, California and Arizona the presence of Spanish or Mexican population components has made the problem a pressing one. Particularly is this true in the efforts of these states to provide accommodation in the schools for minority group children. No less challenging has been the task of the Branch of Education of the Bureau of Indian Affairs. Charged with educating the substantial Indian populations of the area, Indian Service schools have long recognized learning-to-speak-English as their number one problem with Indian children. Somewhat apart from practical bilingual problems have been the linguistic studies pursued by anthropologists among the

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Indian groups of the region. With a score or more dialects surviving, many of them but little modified from pre-literate times, the Southwest has been a productive field for linguists.

A Community School Approach to Bilingualism

Tireman devoted much of his career to applied bilingual experimentation. Professor of elementary education at the University of New Mexico, his interest was in the Spanish-speaking population of the state. One study, completed in 1935, was conducted at San Jose school in a Spanish-speaking neighborhood on the outskirts of Albuquerque; another, completed in 1943, was in the rural Spanish village of Nambe near Santa Fe.

In the San Jose experiment[12] Tireman sought to determine the advantages, if any, of greater than usual emphasis on oral English and reading. The population of the study included all the children in grades one to eight. Control groups were the Spanish-speaking pupils of two unnamed schools. Continuing over five years, the

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termination of the experiment found the San Jose children (although somewhat below the norms for the urban American children on whom the tests were standardized) about two and one-half years accelerated over the pupils in the control schools. Tireman concluded that intensification of the oral English and reading program could help to alleviate the age-grade retardation of Spanish-speaking children in New Mexico elementary schools. It should be noted that he employed hand-picked teachers for his experimental groups.[13]

At Nambe' the goal was to involve, if not to educate, an entire community. This village, isolated in the foothills of the Sangre de Cristo range in northern New Mexico, displayed the diffidence typical of the (indigenous) Spanish to the educational offerings of a curriculum based on Anglo orientations. In effect Tireman proposed: if the people don't fit the curriculum, let's fit the curriculum to the people. He had faith that:

> When the Spanish-speaking parents can see some immediate value coming to their children from attendance in school, they make the necessary sacrifice to keep the children there.[14]

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[13] Ibid., p. 28.

[14] Ibid., p. 192.

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[13] Ibid., p. 24.

[14] Ibid., p. 152.

For the duration of the study the school became the focal point of activities reaching out into the village. "Life in Nambe'" became the curriculum. The home, the family, the worship, the farming, the holidays, the pets and animals, the domestic crafts, the recreation--all were used as vehicles for learning to speak English, to read, to write, and to calculate; all were sources of problems that engaged the Spanish child and quickened his enthusiasm because they had meaning for him.

Although the community school approach to bilingualism may be called the major contribution of his research, it should not be overlooked that at San Jose and Nambe' he worked out a methodology for instructing the non-English-speaking child that has been accepted as fundamental throughout New Mexico.

An Early Course of Study for Second-Language Teaching

Midway in a career in teaching Spanish-speaking children, Hughes became convinced of the need for a course of study that would abandon the monotonous drill method--the chant method--of teaching English. Instead the manual would provide, in orderly sequence, units exploiting the children's own life-space in teaching the second language. Hughes recalls:

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<u>An Early Course of Study for Second-Language Training</u>

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> This course of study had its inception in my own classroom need. Twelve years ago I began teaching in New Mexico. . . . Imagine my surprise . . . in meeting my group of forty-odd first graders ranging from seven to seventeen years of age.
>
> As a group they could not understand common classroom directions. They could pronounce the words of their readers, but couldn't answer questions. . . . My only hope and eventual success lay in telling stories.[15]

Perhaps no child could resist the appeal of stories in which he and his peers were the main characters, and in which the village plaza, the playground and the farms and fields were the setting. The class responded encouragingly, and out of that winter's experience grew the idea for a manual-type course of study that is open to little criticism thirty years later. Filled with activities designed to elicit oral English, the manual makes much of the home, the farm, the community, juvenile literary interests and excursions. Its aim is to teach a minimum English vocabulary (the manual includes a vocabulary list) in anticipation of the instruction of reading during the final two months of the pre-first year.[16]

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[15]Marie M. Hughes, Teaching a Standard English Vocabulary (Las Cruces: Bronson Printing Co., 1932), p. 3.

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Indian Service Approaches to Bilingualism

Valuable contributions to the methodology of second-language teaching have been made by the Branch of Education of the Bureau of Indian Affairs. Greatest strides have been made by that agency since about 1930. Before that date attention seems to have been focused on a subject-centered curriculum, alternating in favor with a vocational program, with the child's inadequacy in English being regarded as a painful and annoying barrier to achievement in that curriculum. A high-level investigation in the early 1930's was in the nature of a shock treatment, and constructive changes were quickly implemented after that time. An "Indian-centered" curriculum replaced the authoritarian one; there was an effort to look at education through the Indian's eyes, and to relate instruction to the child's cultural setting.

An example of the materials developed by the Indian Service was the Navajo Life Series published in 1948.[17]

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Including several paper-bound pre-primers and primers, the text was printed in both English and Navajo. (Linguists had, at that time, recently completed the alphabetizing of the Navajo language.) Illustrations prepared by a Navajo artist occupied about one-half of each page. The text from one of the primers is here reproduced:

> Bah is a Navajo girl.
> She lives in a hogan.
> She lives with her father and mother.
>
> Baa' Naabehó at ééd át é.
> Hooghan yii' bighan.
> Bimá dóó é yiʼ bighan.[18]

In the foreword to the series Thompson expressed the hopes held by Indian Service educators that the primers would ease the task of learning to read:

> Learning to read is a difficult and complex process. The process is especially difficult for beginners who are learning to read in a language other than their native tongue. To read with comprehension, the reader must be able to bring to the printed page a background of experiences that will give symbols meaning . . . . The pages of this book can be meaningful to Navajo youngsters because they have really lived what they now will read.[19]

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Expectations for the Navajo Life Series were not fully realized. The series had, in fact, certain faults. One was the vocabulary load. In the pre-primer forty-four new words were introduced. In contrast, only seventeen new words are introduced in the pre-primer of a popular series in use in public schools, and much more repetition is provided. Too, the reading of Navajo failed to catch on, even among educated adults, so the parallel text in Dine' bizaad was of no use to the child. That the books were drawn from the child's own environment was, however, a splendid idea. Shortly the Indian Service adopted a standard reading series, partly in order that their pupils might be more accurately measured by standardized achievement tests. The Navajo Life Series was retired from use.

Recognizing the need for guidelines the Indian Service issued in 1948 manuals titled Minimum Essential Goals for Indian Schools.[20] Avoiding any prescription of a uniform course of study, the manuals yet provided a certain direction to teaching in Indian schools. The

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[20]Branch of Education, Bureau of Indian Affairs, Minimum Essential Goals for Indian Schools (Lawrence, Kansas: The Haskell Press, 1953).

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[29] Branch of Education, Bureau of Indian Affairs, *Minimum Essential Goals for Indian Schools* (Lawrence, Kansas: The Haskell Press, 1941).

uniform course of study, traditionally originating in Washington for use in all Indian schools over the United States, had come under severe criticism in the inquiry of 1932. Admitting that curricula in these schools, as in the public schools, should be responsive to local needs, Indian educators nevertheless felt there were certain goals common to all Indian schools:

> . . . It has always been clear that there is a basic core of things that need to be learned by all children if they are to function in modern society. This basic core consists of: the ability to speak and understand the English language; ultimately to read with facility and understanding; to communicate through written language with directness and meaning; to bring certain physical and social activities of each individual into general conformity with community standards. . . .[21]

How were these goals to be attained? The manuals provided the answer: the day-to-day activities of the Indian children, in the classrooms, on the playground and in the dormitories became the focal points around which social behavior and language learnings were clustered. The process might be described as proceeding <u>from the goal</u> (the desired behavioral outcome), to <u>the activity implementing the goal</u> (example, play situation providing social interaction), to <u>language learning</u> (conversation generated

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[21] <u>Ibid</u>., p. 3.

during the activity). More simply stated: the child is to learn social behavior and acquire English in the process. So the behavioral goals are defined, social situations are provided to offer "practice" in behavior, and the situation is exploited as an occasion for speaking English. The following unit, taken from Minimum Essential Goals, Beginning Level, illustrates:

Goal:	Allows other children to join him in using blocks and toys.
Activity:	Encourage small groups to play with toys and blocks. Teach that blocks are ours, not mine.
Language:	Encourage the child to say, "We can make a house; we can make a school; we made a house."[22]

Manuals were provided for each level through elementary. Although, of course, regular textbooks and a content course of study were introduced at appropriate levels, the goals program continued, parallel to academic studies, up through the grades.

While the Minimum Essential Goals program is an imaginative approach to teaching a second language, it has certain weaknesses. Unaware were many teachers of the need for much, much repetition of English utterances.

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There was little likelihood, therefore, that the child would learn, would habituate, a firm fund of useful conversational utterances from hearing the unregulated expressions of his teacher or the desultory chatter of the play corner.

III. THE ROLE OF THE KINDERGARTEN IN BILINGUALISM

It is not uncommon for school systems to provide some kind of preparatory school experience for bilingual children before they enter first grade and undertake the "serious business" of learning to read.

A pre-first grade accommodated beginning Spanish pupils at San Jose school, scene of Tireman's study reported earlier in this paper. Tireman attributed the creditable performance of the San Jose pupils, through their elementary years, in part to the impetus of the pre-first grade experience.[23]

The Indian Service offers a "beginners" grade. Intended for six-year-olds, the Navajo custom of counting the child as one year old at birth results in the enrolling of some five-year-olds in these classrooms. Indian Service teachers are cautioned:

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[23] Tireman, op. cit., p. 31.

> . . . oral language development should precede written language. Reading specialists point out that an effective reading program must have its basis in oral language. A child, to become a good reader, must be able to express his ideas in oral form. This means that care should be exercised to develop an adequate oral vocabulary before any attempt is made to teach reading. For Navajo beginners this pre-reading period will require at least a year's time. For that reason seldom will a Navajo beginner be ready to read before his second year in school.[24]

Trial runs during two successive summers have convinced the Ector County, Texas, school system that an intensified "oral bombardment" program conducted in the form of an eight-week summer session for six-year-olds of Mexican national parentage has paid dividends. Children attending the sessions have shown improvement in readiness for reading and have made better adjustments to school life.[25]

In an experiment conducted in a New Mexico town in 1942, Herr[26] felt that the results justified a

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[24]Hildegard Thompson, "Teaching English to Navajo Beginners" (Window Rock: Office of Indian Affairs, 1943), p. 2. (mimeographed).

[25]W. T. Poulos, "The Ector County Oral Vocabulary Bombardment" (Odessa, Texas: Ector County Public Schools, 1960, (mimeographed).

[26]Selma E. Herr, "Effect of Pre-first-grade Training upon Reading Achievement among Spanish-American Children," The Journal of Educational Psychology, XXXVII (February, 1946), pp. 87-102.

. . . oral language development should precede written language. Reading specialists point out that an effective reading program must have its basis in oral language. A child, to become a good reader, must be able to express his ideas in oral form. This means that care should be exercised to develop an adequate oral vocabulary before any attempt is made to teach reading. The Navajo beginners this pre-reading period will require as long as a year's time. For that reason seldom will a Navajo beginner be ready to read before his second year in school.[24]

Trial runs during two successive summers have convinced the Rough Rock, Arizona, school system that an intensive "oral bilingual" program conducted in the form of a eight-week summer session for elementary aids of nearby national parks has paid dividends. Children attending the sessions have shown improvement in readiness for reading and have made better adjustments to school life.[25]

In an experimental undertaking in a New Mexico town in 1962, Bear[26] felt that the results justified a

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[24]Hildegard Thompson, "Teaching English as Navajo Beginners" (Navajo Tribe: Office of Indian Affairs, 1943), p. 2. (Mimeographed).

[25]G. E. Fenton, "The Rough Rock Oral Vocabulary Bonanzaville" (Tempe, Arizona: Rough Rock Public Schools, 1960. (Mimeographed).

[26]Delma R. Bear, "Effect of Intensive Reading Using Open Reading Materials Among Spanish-Speaking Children," The Journal of Reading and Pacific Area, Vol. XXVII (Summer 1961), pp. 27-32.

pre-first program for Spanish-American children before their entrance into first grade at age six. One hundred five-year-old children, enrolled for a full term in a pre-first program similar to a kindergarten, but with more than usual emphasis on reading readiness, were compared with another hundred children who had no such experience (the control group). The experimental group made significantly greater gains in mental age, performed significantly better on a reading readiness test administered early in the first grade year, and a significantly greater number were ready for promotion to second grade at the end of the first year.

IV. THE ROLE OF THE KINDERGARTEN IN CHILD DEVELOPMENT

In a recent article MacAulay forecasts educational trends for the decade of the 60's. He lists as a "straw in the wind" a " . . . downward pressure through the grades of content material."[27] By this he means an upgrading, a stiffening, of the subject matter for each level of the elementary school. He reports:

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[27] J. D. MacAulay, "Elementary Education--Five Straws in the Wind," Phi Delta Kappan, XLI, (June, 1960), 394.

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> A recent survey of seventeen kindergarten classrooms scattered throughout an eastern state indicates that thirteen are using basic primers and eleven are teaching separations and combinations up to five. Such kindergartens are becoming more like the traditional first grade than a preparation for the first grade. The chief function of the kindergarten as a socializing experience seems to be disappearing, perhaps to be adopted by the nursery school.[28]

This development gives cause to ponder. If the child-centered philosophy has been yielding ground to pressures for "excellence" throughout the elementary level, the kindergarten at least has seemed safe--the one remaining haven where a child could be a child. Apparently it is now threatened. The Educational Policies Commission notes the same trend, while withholding judgment as to whether learning to read should invade the kindergarten:

> The claim of reading to a place in the kindergarten must be assessed . . . in terms of the . . . role which the kindergarten is peculiarly adapted to fill.
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> The kindergarten is designed for five-year-olds. Its general purpose is to help the young child to adapt to school . . . and to promote readings for learning in various areas . . . . It works through activities appropriate to a

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> school setting, but adapted to the immaturity and restlessness of the young child.
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> If the kindergarten function is not accomplished before the first grade, the necessary adjustments must be sought in the first grade, taking the teacher's time and attention from other matters, including the teaching of reading.[29]

Society hesitates to accept the idea that childhood has its own legitimate purposes. Rather, "practical-minded" people persist in scrutinizing the period of infancy to see if something "useful" cannot be done with it.

Estvan and Estvan reiterate the same idea in The Child's World: His Social Perception:

> What children do and say and believe is a consequence of the way they perceive their world. . . . This truth is one of the hardest for parents and teachers to comprehend and act upon. We are almost perverse in our insistence that boys and girls see as we see, believe as we do, and act as we would. This perversity is nowhere more evident than in the recommendations adults make about the content of the school curriculum.[30]

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[29] Educational Policies Commission, Contemporary Issues in Elementary Education (Washington: National Education Association of the United States, 1960), p. 11.

[30] Frank J. Estvan and Elizabeth W. Estvan, The Child's World: His Social Perception (New York: G. P. Putnam's Sons, 1959), p. vii.

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The Estvans' point of view is perhaps especially important to teachers of Indian children. How vital that the Indian child be not hurried, peremptorily, through that brief year when, in the companionship of his English-speaking teacher and, often, some English-speaking classmates, he can shape and interpret his small world. The understanding teacher will provide a climate in which he can examine and contemplate the multiple new stimuli, including linguistic stimuli, that are impinging upon him.

V. THE ROLE OF THE KINDERGARTEN IN SPEECH DEVELOPMENT

Strickland believes that nursery school is valuable and that kindergarten experience is indispensable to optimum language development. She writes:

> Experience in nursery school and kindergarten furnishes the young child with opportunities which can scarcely be equaled in even the most favorable homes. . . . Interaction with other children takes place in play situations which are adjusted to his . . . level and are highly conducive to language growth.[31]

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> Language functions almost constantly throughout a kindergarten day. . . . Conversation begins as the children enter the room and forms an accompaniment to the removing of wraps, selecting materials for work and play, and much of the activity of work and play time.[32]

> A year in kindergarten adds immeasurably to the child's stock of experiences, meanings, and words. Freedom to talk and experience increase the fluency and ease with which a child talks.[33]

Heffernan and Todd see the kindergarten as a specific adaptation to the needs of five-year-olds. The five-year-old has reached a stage of physical, mental and emotional development where his unique needs demand a program especially conceived for him:

> . . . good kindergarten teaching is based on the understanding of the nature of kindergarten children, which differs markedly from that of nursery school children and also that of first grade children who are learning to read.[34]

One of these marked differences is observed in the use of language, or, more accurately, in the nature

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[32] Ibid., p. 112.

[33] Ibid., p. 114.

[34] Helen Heffernan and Vivian Edminston Todd, The Kindergarten Teacher (Boston: D. C. Heath and Company, 1960), p. 5.

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of the conversation of five-year-olds. Heffernan refers to the findings of Piaget who studied the language of French-speaking children in Switzerland:

> A five-year-old is like the four-year-old in talking almost exclusively about himself, but is different . . . in that he expects others to talk, and he understands what they say.
>
> Understanding what other people say constitutes an important step forward in language development.[35]

Lambert, as if in rebuttal of Heffernan and Todd, warns against naivete' in typing children according to chronological age. She cautions:

> . . . although we may be able to identify certain characteristics that set off six-year-olds, there may be much overlapping with other groups; that is, a six-year-old may be much more like an eight-year-old, intellectually, and the latter may be more like a six-year-old, socially.[36]

Implicit in the views of most authorities on the kindergarten is the role of conversation: the liberty, indeed the encouragement of children, to talk. Such a

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[35] Ibid., p. 206.

[36] Hazel M. Lambert, Early Childhood Education (Boston: Allyn and Bacon, Inc., 1960), p. 39.

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concept is a source of some uneasiness to certain educators, for example, the primary supervisor who sees just over the horizon first grade with its learning-to-read objective. But the concept is not at all disturbing to the skilled teacher of five-year-olds who is certain that the best preparation for next year's reading is a happy initiation into the world of picture books and captivating things-to-do--all accompanied by much linguistic interaction. That teachers forget, too, is seen in the oral dominance of many beginning classrooms by the teacher's voice. Perhaps a better understanding of how infants learn to talk and how they develop language facility through childhood would constrain the teacher to do less talking and more listening. Bryngelson and Mikalson maintain that, contrary to popular opinion, speech is not learned by imitation of adults:

> . . . the baby hears his own sounds and repeats them for the sheer pleasure of it. Later, responsive rewards come from the parent's imitation of the child's sounds and words . . . and the child actually learns by hearing his own voice and by having adults imitate him, not by imitation of adults.[37]

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This is not to say that as the child matures he learns solely by adult responses to his own exploratory attempts at speech. Of course he learns from adults; he gets his vocabulary from adults and from children around him. But the teacher who assumes that the major share of language learning is in the teacher-to-child direction is over-optimistic about that phase of her role in the classroom.

VI. VOCABULARY LISTS AND SECOND-LANGUAGE LEARNING

Programs of teaching a second language are often based upon a vocabulary list. Tireman[38] compiled a word list, destined to be widely consulted, for use in teaching English to Spanish-speaking children, and so also did Hughes,[39] the Ector County oral bombardment program[40] and Burrus.[41] In the field of Indian education a carefully screened list was included in the Minimum Essential Goals manuals.[42] In function the word list served, in second-language teaching, as the vocabulary goal.

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[38] Tireman, loc. cit. [39] Hughes, loc. cit.

[40] Poulos, loc. cit.

[41] Elizabeth Parris Burrus, "Beginner's Speaking Vocabulary," (no imprimatur).

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[18] Tireman, loc. cit. [19] Espinosa, loc. cit.

[20] Povlsen, loc. cit.

[21] Elizabeth Portia Sparks, "Beginner's Speaking Vocabulary," (no imprint date).

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Fundamental to Hughes' program for teaching bilingual children was a list of 660 words. Of interest was her localization of the list. While not failing to check it against major lists, and against the vocabulary of the primers the children would encounter the following year, she felt that to be of maximum usefulness in New Mexico it should have a provincial quality:

> Each community will find words which are of purely local significance, but because of their constant use in that environment they must be considered basal. The list of words used in this manner in our own situation follows:
>
> | | |
> |---|---|
> | alfalfa | ditch |
> | burro | gin |
> | chile | irrigate |
> | corral | mountain |
> | cotton | rural route[43] |

Tireman urged that word lists be flexible as to the number of items. While he wrote, "Our experience suggests that from four hundred to six hundred words is a reasonable number to be mastered in . . . pre-first grade teaching,"[44] he emphasized that the size of the list was contingent upon a number of factors. He mentioned size of the class, range of intelligence in the room, regularity of attendance,

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[44]Tireman, op. cit., p. 188.

ability of the teacher and amount of enriching material provided.[45]

The vocabulary list used in the Ector County oral bombardment program, consisting of ". . . 620 high-frequency words and 63 common expressions . . . "was re-examined to assure that" . . . the words were high frequency words in Ector County, in the readiness program, in the textbooks, in Texas and in the Southwest.[46]

A word list (336 items for the beginning level) is of first importance to the Minimum Essential Goals program of the Indian Service. In selecting it Indian educators asked not: what words should the Navajo child learn in his beginning year? Rather they asked: what experiences, what concepts, has the Navajo child encountered in his native society and what experiences will he have in the new school environment? Then: what English words are necessary to express these concepts? Enlisted were the services of an authority on Navajo linguistics:

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[45] Ibid., p. 67.

[46] Poulos, op. cit., pp. 2-3.

> Robert Young, specialist in the Navajo language. . . prepared a list of words based upon his analysis of concepts needed by Navajo children. He began with the Navajo oral symbol and then translated it into English.[47]

How does the teacher of bilingual children use the word list she has chosen or developed? She uses the word list somewhat as the first grade teacher uses the sight vocabulary in reading instruction: as the goal for a winter's work. The difference is, the bilingual teacher strives to teach her word list as a spoken vocabulary. Commonly the teacher has developed units and activities that deftly introduce words from the list. Often she has collected a file of pictures, each one representing a word, and exposes these pictures to the children, encouraging them to utter the noun (lamb), verb (run), adjective (pretty) or preposition (on) illustrated in the picture.

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VII. SUMMARY OF THE CHAPTER

The attempt was made in this chapter to place the bilingual problem in the American Southwest in perspective. The problem was seen as more complex than the mere matter of teaching the prevailing tongue to surviving ethnic groups; instead, the literature confirmed, learning English is intimately associated with the broader problem of the assimilation of these groups. Language was characterized as the "culture bearer"--the conservator of the old, and the interpreter of the adopted culture.

Programs for teaching the second language in the Southwest were reviewed. Considerable attention has been given to the bilingual problems of the Spanish-speaking population, it was found, but less attention to teaching the second language to Indian groups. The Bureau of Indian Affairs seems to have been the sole agency concerned with the latter problem.

The potentiality of the kindergarten and the pre-first grade in the accommodation of Indian children, both in respect to socialization and to second-language learning, was outlined.

The development of vocabulary lists, and the central position, traditionally, of such lists in second-language teaching, were reviewed.

CHAPTER III

THE DESIGN AND IMPLEMENTATION OF THE STUDY

In this chapter the experimental design of the study will be presented. A step-by-step description of the implementation of the study in the field; a brief background of information on the schools and the Indian communities in which the experimental classrooms were located and a description of the test instruments used to measure results will be given.

I. DESIGN OF THE STUDY

The present study was one of several completed during a three-year research program at the University of New Mexico. The parent research, operating under the title, "A Research Study on the Adjustment of Indian and Non-Indian Children in the Public Elementary Schools in New Mexico," inquired into a number of aspects of the accommodation of Indian children in New Mexico's public schools. Financial support for the program was provided by the United States Office of Education.

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The design of this experiment took form after some members of the research project had made a preliminary survey of the teaching practices in beginning elementary

enrolling Indian children. The informal survey, coupled with evidence gained from achievement testing of Indian children in the schools, suggested the advisability of a winter-long experiment that would attempt to improve, professionally, the teachers of beginning classrooms with Indian enrollment.

The experiment was structured to incorporate the following phases: (1) to measure the reading readiness status of Indian children in selected beginning classrooms at the conclusion of the 1958-59 school term. (These classrooms constituted the control groups); (2) to have teachers incorporate into their programs, during the succeeding 1959-60 term, techniques intended to facilitate the learning of oral English and reading readiness. (These classrooms constituted the experimental groups); (3) to record second-language growth, during the 1959-60 experimental year, by means of a vocabulary test periodically administered; (4) to measure, at the conclusion of the 1959-60 term, the reading readiness status of the experimental groups taught under the recommended techniques; (5) to evaluate statistically the improvement, if any, in the performance of the children as evidenced by superior achievement of the experimental groups over the control groups. A test of probability was to be employed to test

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the significance of any gains obtained.

II. IMPLEMENTATION OF THE STUDY

Operationally the field study was implemented according to the following sequence:

Step 1. Obtaining approval of interested agencies.

Step 2. Becoming acquainted in the field with classrooms and teachers and administrators who were to participate in the study.

Step 3. Administration of the Metropolitan Readiness Test to kindergarten and pre-first pupils just completing the 1958-59 term, the pupils who were to constitute the control groups.

Step 4. Orientation of the teachers to the detailed framework of the study.

Step 5. Initiation of the actual field experiment (in September, 1959) and immediate measurement of the beginning-of-school vocabulary of the children in the experimental groups.

Step 6. Holding of regularly scheduled workshops for participating teachers once each month on the University of New Mexico campus.

Step 7. Visits to the field, throughout the experimental year, by members of the research staff for the purposes of testing, observation and consultation.

Step 8. Mid-year testing of the experimental groups, using the Picture Vocabulary Test, to record second-language growth.

Step 9. Evaluation of the study by participating teachers at the end of the experimental year.

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Step 9. Evaluation of the study by participating teachers at the end of the experimental year.

Step 10. Final testing of the 1959-60 experimental groups using the Metropolitan Readiness Test.

Step 11. Statistical analysis of the results and reporting of the experiment.

Step 1. Obtaining Approval

Two agencies, other than the University of New Mexico and the United States Office of Education, had proprietary interests in the study. One of these was the Division of Indian Education of the New Mexico State Department of Education. The kindergartens that were to be included in the study owed their existence to Federal funds channeled through the Division of Indian Education to local school districts. The kindergartens were, then, in a sense protégés of the Division and were supervised by it. The other interested agency was, of course, the local school district--the several districts--in which the experimental classrooms were located. Approval was given by the Division of Indian Education and by local administrators.

Step 2. Becoming Acquainted

Those public schools enrolling Indian children (known as "Johnson-O'Malley schools"--schools reimbursed under Johnson-O'Malley legislation for educating Indian

Step 10. Final testing of the 1959-60 experimental groups using the Metropolitan Readiness Test.

Step 11. Statistical analysis of the results and reporting of the experiment.

Step 1. Obtaining Approval

Two agencies, other than the University of New Mexico and the United States Office of Education, had proprietary interests in the study. One of these was the Division of Indian Education of the New Mexico State Department of Education. The kindergartens that were to be included in the study owed their existence to federal funds channeled through the Division of Indian Education to local school districts. The kindergartens were, then, in a sense property of the Division and were supervised by it. The other interested party was, of course, the local school district--the several districts--in which the experimental classrooms were located. Approval was given by the Division of Indian Education and by local administrators.

Step 2. Preparing Instruments

These public schools enrolling Indian children (known as "Johnson-O'Malley schools"--schools reimbursed under Johnson-O'Malley legislation for educating Indian

children) are widely scattered over the western half of New Mexico. Visits to these schools before the actual initiation of the study provided opportunity for the research staff to become acquainted with teaching and administrative personnel. A brief description of the beginning classrooms invited to participate in the study is appropriate at this time.

Pre-first at school A. This school is located in a ranching community of predominantly Spanish-American population. Indian pupils comprise about three-fifths of the elementary school enrollment. They are one of the Southwestern nomadic groups, and are brought to school by bus each day from an area about thirty-five miles distant. The pre-first had a firm enrollment of about twenty-two pupils during the first year and seventeen pupils during the second year of the experiment. The teacher had had a year's experience in third grade before accepting the pre-first grade assignment in the 1958-59 term.

Kindergarten at school B. This school, located on an Indian reservation, accommodates the Indian children, Spanish-speaking children from nearby villages and a few Anglo children. The kindergarten pupils were all Indian, of a nomadic group. Enrollment in both the control year

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Kindergarten at school B. This school, located on an Indian reservation, accommodates the Indian children, Spanish-speaking children from nearby villages and a few Anglo children. The kindergarten pupils were all Indian, of a nomadic group. Enrollment in both the control year

and the experimental year was well under twenty pupils. The teacher was having her first year's teaching experience during the 1958-59 term.

Kindergartens at school C. This school is situated on an Indian reservation occupied by one of the Southwestern nomadic tribes. The kindergarten was quite unsettled during the 1958-59 school year, with several changes of instructors. In the 1959-60 term the forty five-year-old children were divided into two classrooms and the teachers remained constant throughout the year. Facilities, an antiquated building some distance from the main plant, were less than adequate.

Kindergartens at school D. Virtually all of the five hundred pupils at this school are Indian children from nearby pueblos. Three kindergartens, each enrolling fewer than twenty pupils, were in operation during both years of the study. Of the three teachers, all having their first year's experience during the 1958-59 term, one continued the second year. Replacements for the 1959-60 term were teachers of several years' experience in teaching elementary school children.

and the experimental year was well under twenty pupils. The teacher was having her first year's teaching experience during the 1958-59 term.

Kindergartens at school C. This school is situated on an Indian reservation occupied by one of the southwestern nomadic tribes. The kindergarten was quite crowded during the 1958-59 school year, with several changes of instructors. In the 1959-60 term the total five-year-old children were divided into two kindergartens and the teachers remained constant throughout the year. Facilities, an improvised building some distance from the main plant, were less than adequate.

Kindergartens at school D. Virtually all of the five hundred pupils at this school are Indian children from nearby pueblos. Three kindergartens, each enrolling fewer than twenty pupils, were in operation during both years of the study. Of the three teachers, all having their first year's experience during the 1958-59 term, one continued the second year. Replacements for the 1959-60 term were teachers of several years' experience in teaching elementary school children.

Step 3. Testing the Control Groups.

The control groups, it is to be remembered, were those pupils enrolled in the cooperating classrooms during the 1958-59 school year. That is, the 1958-59 "generation" of children composed the control groups and the 1959-60 generation in the same classrooms composed the experimental groups.

Two tests were given to the control groups during the spring of 1959. One was the "Test of Knowledge of English for School Beginners for Whom English is a Second Language."[1] It will be referred to in this paper as the Picture Vocabulary Test. The other was the Metropolitan Readiness Test.[2]

The Picture Vocabulary Test was given to a small sampling of children the spring of 1959 to study its feasibility and to further validate the instrument. That is, there was no intent of comparing the performance of the control groups on this test with the experimental

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[1]Miles V. Zintz, "A Test of Knowledge of English for School Beginners for Whom English is a Second Language" (unpublished, The University of New Mexico, Albuquerque, 1959).

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groups the following year. The Picture Vocabulary Test consists mainly of picture batteries. It is designed to sample the oral English vocabulary of the beginning bilingual child. The specific word-concepts in the test were drawn by random sampling from a master list of 2,053 words. The master list was a compilation of all the words contained in the Gates Vocabulary List for the Primary Grades,[3] Stone's Primary Word List,[4] the Dolch Basic Sight Word List,[5] Tireman's Minimum Vocabulary for First Grade Spanish-Speaking Children,[6] the Indian Service list for the beginning level,[7] and the 500 words of highest

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[3]Arthur I. Gates, A Reading Vocabulary for the Primary Grades (New York: Bureau of Publications, Columbia University, 1935).

[4]Clarence R. Stone, Progress in Primary Reading (St. Louis: Webster Publishing Company, 1950), pp. 120-130.

[5]Edward W. Dolch, The Dolch Basic Sight Word Test (Champaign: The Garrard Press, 1942).

[6]Lloyd S. Tireman, Teaching Spanish-Speaking Children (Albuquerque: The University of New Mexico Press, 1948), pp. 71-73.

[7]Bureau of Indian Affairs, Minimum Essential Goals for Indian Schools: Beginning Year, Levels One and Two (third edition; Lawrence, Kansas: The Haskell Press, 1953), pp. 46-47.

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frequency in the International Kindergarten Union list.[8] Randomization, from the master list, was done in a manner to assure that the child would encounter batteries calling for facility with nouns, verbs, modifiers and conjunctions.

The Picture Vocabulary Test is in four parts. In Part I the child is asked, for example, to "point to the table" in an array of four drawings. No verbal response by the child is required. In Part II the examiner points to a picture and requires the child, if he can, to name the object or the action represented. In Part III the child is confronted with a situational picture and encouraged to comment on it. He may score, on this section, one point for a one-word response, two points for a two-word sentence, three points for a longer sentence and four points for a compound or complex sentence. The final section, Part IV, tests the child's ability to respond to comprehension questions such as, "Why do we have books?" The test must be individually administered, in isolation. A copy of the test is included in Appendix C.

The Metropolitan Readiness Test yielded data that provided the statistical basis for the study. It was,

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obviously, necessary that this test be given to the control groups in the spring of 1959 so that the performance of these groups might be compared with the performance of the experimental groups at the conclusion of the study. The Metropolitan test was constructed to predict, at the end of the kindergarten or pre-first year, readiness for first grade instruction including, of course, reading. Not designed with bilingual children in mind, it is nevertheless properly used with them since these children will be inducted into a first grade program and encounter the regular curriculum. The test samples vocabulary, visual and auditory discrimination, muscular coordination, number readiness and ability to follow instructions. The test is administered to groups of limited size.

Step 4. Orientation of Teachers

In August, shortly before the opening of the 1959-60 school term, cooperating teachers and administrators from each of the schools were called to a meeting on the University of New Mexico campus. The meeting was planned to orient the teachers on several aspects of the study: (1) the justification, to the teachers, of the proposed experiment; (2) the framework of the experiment; (3) the expectations, by the experimenter, of the participating

obviously, necessary that this work be always the central purpose in the design of 1970 so that the performance of these groups might be compared with the performance of the experimental groups at the conclusion of the study. The Metropolitan test was constructed to evaluate, on the end of the kindergarten or pre-first year, reaching the first grade instruction including, of course, reading. Now designed with bilingual children in mind, it is a verbal-less property used with them also these children will be induced into a first grade program and continue the regular curriculum. The test samples vocabulary, visual and auditory discrimination, counting operations, number readiness and ability to follow directions. The test is administered to groups of children also.

Step 4. Selection of teachers

In August, shortly before the opening of the Lago-So School term, cooperating teachers and administrators from each of the schools were called to a meeting on the University of New Mexico campus. The purpose was primarily to orient the teachers as several aspects of the study: (1) the justification, to the teachers, of the proposed experiment; (2) the framework of the experiment; (3) the expectations, by the experimenter, of the participating

teachers and, on the other hand, what the experimenter proposed to do for the teachers.

The justification of the experiment. Data were presented in chart form at the meeting to give the teachers objective evidence that, under present teaching practices, a relatively low percentage of kindergarten and pre-first pupils were achieving readiness for reading by the end of the school year. Source of the data was the testing done in these teachers' classrooms a few months before. A number of questions were posed: Could this percentage be improved? Would more Indian children emerge from kindergarten or the pre-first grade, ready for first grade work, if techniques of teaching oral English and promoting readiness for reading, were improved? Attention was called to the practice--in some schools amounting to custom--of assuming that the Indian child should go through both kindergarten and pre-first before being admitted to first grade. Could a year of the child's "scholastic life" be saved, could one of the preparatory years be by-passed, if quality of instruction in the beginning classrooms were bettered?

The dual nature of the teacher's task in the beginning Indian classroom was emphasized: she must, at

one and the same time, teach the child to speak English and bring him to reading readiness. The Indian child can scarcely achieve readiness for reading English, it was pointed out, if he can't speak English.

The framework of the experiment. The experiment was detailed to the teachers in the orientation meeting in much the same manner as it is outlined in this chapter.

The mutual expectations of teachers and experimenter. Fundamental to the experiment was the expectation that the teachers would incorporate into their customary programs additional methods and techniques recommended by the experimenter. The following instructions were given at the orientation meeting:

> 1. Teachers were asked to accept as a vocabulary goal a master word list of 2,053 items. The compilation of this list has already been described.[9] They were cautioned not to attempt to teach this vocabulary rote-fashion, but rather to use the list as a source and as a guide.

This list was substantially larger than other vocabulary lists developed for second-language instruction in the Southwest. Commonly such lists contain 500 or fewer items for a winter's work in a beginning classroom.

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[9] Cf. ante, p. 51.

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This list was substantially larger than other vocabulary lists developed for second-language instruction in the Southwest. Commonly used lists contain 500 or fewer items for a whole year's work in a beginning classroom.

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[9] Cf. ante, p. 31.

The greatly enlarged list was offered in the belief that smaller lists are limiting, that they do not constitute an adequate objective for an entire term and that in the instance of some children who already possessed a minimal English vocabulary the shorter lists posed no challenge.

2. Teachers were asked to make extensive use of pictures in teaching the vocabulary of the master list.

Many teachers have picture files, usually somewhat fragmentary, that they use in this manner. For the experiment, however, an extensive file was provided to each teacher. These pictures were keyed to the master word list. They were especially drawn, and printed on an offset press, to represent the concepts in the master list. The pictures were "enculturated"; Indian mothers and fathers, Indian children, animals common to the child's environment and scenery and activities familiar to rural New Mexico children were sketched in arrangements that strongly suggested the vocabulary items the pictures were intended to teach. Thus the teacher wishing to introduce the concept <u>story</u> (tell a story) could go to her picture file and find a picture of an aged <u>shi chai</u> (Navajo grandfather) telling a story to the children by the campfire at night. Examples of pictures planned by the experimenter and issued to the teachers are included

in Appendix B. A second file of pictures, made available by the Branch of Education of the Bureau of Indian Affairs, was provided for each teacher. Including one hundred seventy-five sketches depicting word-concepts, the set was complete with plans for use in the teaching situation.

3. Teachers were requested to make free use of miniature three-dimension objects as aids to teaching the vocabulary of the master list.

Emphasized to the teachers was the importance of having in the classroom many things, either miniature or full-size, that children could inspect and talk about. While a supply of these objects was not provided to the teachers, a collection was made and displayed to them. The collection included animals, vehicles, household furnishings and articles of grooming.

Three-dimensional but of somewhat different character were the visual aids developed by the experimenter and demonstrated to the teachers. Examples of these aids are shown in Figure 1, page 58. Usually these items were made up in multiple and one given to each teacher. The idea was to divorce the teachers from the perennial oak tag-chalk-crayon-scissors routine and encourage them to experiment with devices that can be constructed from cartons, tin cans, papier maché and

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Three-dimensional but of somewhat different character were the visual aids developed by the experimenter and demonstrated to the teachers. Examples of these aids are shown in Figure 1, page 38. Usually these items were made up in multiple and one given to each teacher. The idea was to divorce the teachers from the perennial oak tag-chalk-crayon-scissors routine and encourage them to experiment with devices that can be constructed from cartons, tin cans, paper sacks and

FIGURE 1

VISUAL AIDS DEVELOPED BY THE EXPERIMENTER AND DEMONSTRATED TO THE TEACHERS

other cost-free materials. Most classrooms were but sparsely supplied with three-dimension objects before the initiation of the study.

4. Teachers were asked to use the tape recorder in teaching the second language.

The recorder may be used to demonstrate to the children their progress in speaking English over a period of weeks. A more immediate use is in recording a conversation between teacher and children, then letting them listen to the playback. All schools had recorders, it was discovered, but none was in use. Teachers were instructed in their use and tapes were provided for them.

5. Teachers were invited to experiment with filmstrips as a technique of teaching the second language.

To facilitate this a library of eighty titles was selected from a large number of filmstrips viewed. Included were such favorites as "Three Billy Goats Gruff," plus subjects that took the children afield in contemporary society, to the zoo, to the dairy farm, to the county fair and to the big city. The strips were circulated in blocks of ten among the teachers. All strips had a showing, often several showings, in each classroom in the course of the school term. It was not intended, of course, that the beginning children should read the story captions on the strips. Instead it was suggested that at the first viewing

the teacher tell the story, then on re-runs the class was to be encouraged to identify objects or discuss the antics of the characters. Thus a frame might be left on the screen for several minutes while the children talked about it. Filmstrips were not being used in the classrooms before the initiation of the study; however, all schools had projectors.

6. Teachers were encouraged to experiment with numerous other ideas and devices that would enhance the second-language program.

Many of these ideas were demonstrated, others were discussed, in meetings held during the winter. They included: enlarging the kindergarten library with jumbo-size picture books (a selection of these books was examined by the teachers), use of the flannel board (a set of felt cut-outs depicting the Nativity story was given to each teacher at Christmas), use of giant-size blocks (a set was given each teacher), the use of phonograph records and the use of finger plays and games appropriate to language activity. Examples of collections of finger plays and games issued to the teachers are included in Appendix A.

It was not expected that the teacher should abandon her own personal methods or even drastically modify

them. Instead, teachers were asked to experiment, to build upon and reinforce their study units and lesson plans with the techniques and materials offered by the study.

7. Finally, the teachers were asked to travel to Albuquerque once a month on Saturday to attend a workshop on the University of New Mexico campus. All who attended the workshops were compensated, from Study funds, for per diem and automobile mileage.

Step 5. Formal Beginning of the Field Experiment

Elementary schools opened shortly after the orientation meeting described above and the participating teachers regarded the experiment as under way. It is not to be supposed that from that date on the teachers followed a program prescribed by the experimenter. The climate of the project was permissive. Recommended methods were just that: recommendations. Not all teachers tried all things, during the experiment, but all teachers tried most things.

As soon as it could be accomplished after the opening of school, staff members visited each cooperating classroom and gave, individually to each pupil, the Picture Vocabulary Test. Results were recorded to permit measurement of progress in vocabulary as the experiment continued. Charts showing the results of this testing for each classroom were prepared and displayed to the teachers at the

monthly campus workshops. The teachers demonstrated interest in the test results. An immediate value of the vocabulary testing was to provide the teachers with a basis for dividing their classes into instructional groups according to facility in English.

Step 6. The On-Campus Workshops

Three other experiments were in progress during the 1959-60 school year in addition to the one with which this report is concerned. Cooperating schools were the same for all the studies, although different classrooms were involved. In all, about forty teachers participated in the four experiments, and these teachers, plus interested administrators, composed the personnel that attended the workshops on the University of New Mexico campus.

A variety of activities characterized the workshop sessions of the teachers participating in the kindergarten experiment. On those occasions when testing had recently been completed in one or more classrooms, the results were presented to the teachers. Instructional aids, made by the experimenter for use in the cooperating classrooms, were demonstrated. Not the least value of the workshops was the idea-exchange that developed. Frequently

the experimenter, traveling in the field, observed aids that had been originated by the teachers. Time was then given to those teachers to share their ideas with the whole group.

A new teaching aid (sometimes two or three) was demonstrated at each meeting. A partial list of the materials demonstrated and distributed during the winter follows:

September:	Picture files, obtained from the Bureau of Indian Affairs, designed for teaching English as a second language.
October:	A picture library produced by the Study.
November:	Jumbo blocks, painted in bright colors.
December:	Felt cut-outs for use on the flannel board. Accompanying narration was scaled for delivery by children of beginning level.
January:	A grocery store made of cartons was demonstrated, then loaned out to the classrooms.
February:	Papier maché hollow logs, effective in teaching such concepts as <u>in</u>, <u>on</u>, <u>above</u>, <u>under</u>, <u>over</u> and <u>through</u>. In use, a toy kitten (provided with each log) was caused to demonstrate the relationships listed.
March:	Sets of Easter puppets. At the same workshop a resource visitor demonstrated the making and use of puppets in second-language teaching.

April: Collections, illustrated and duplicated, of finger plays and games chosen for their suitability in the bilingual classroom.

Bean-bag-toss sets, made from cartons, to be used in teaching vocabulary associated with numbers learning.

Compartmentalized boxes made from cartons, suited to teaching ordinals: first, second, third, et cetera.

A feature of each monthly workship was a general assembly of the teachers involved in all of the four studies. In those assemblies, subjects of mutual interest were discussed. Topics included: motivating the Indian child, an examination of Indian value systems and daily programming in the Indian classroom. Selected educational films were shown.

Step 7. Visits to the Field

An effort was made to visit all experimental classrooms once each month. Some of these visits were occupied with testing, but another purpose was to observe the effectiveness of the innovations recommended by the study. Not unexpectedly, teachers sometimes returned home from a workshop with some indecision as to just how a technique should be applied or how an instructional aid should be used. It might be something as simple as not knowing how to operate the tape recorder, or how to set up an

"audition" (how to get the child to talk) on the recorder. Blocks of filmstrips were exchanged on these trips, the experimenter leaving the new set and taking the viewed set to another teacher. It was customary to hold conferences with the principal and often with the superintendent on the field trips.

Step 8. The Mid-Year Vocabulary Test

As stated in Step 5, the Picture Vocabulary Test was given to the experimental groups immediately after the start of the 1959-60 school term. Its purpose at that time was to give the teachers an objective appraisal of the beginning-of-school English vocabulary of their Indian pupils for purposes of grouping. The test was given to all groups again at mid-year, in January, 1960. The purpose of the second testing with this instrument was to give the teachers an indication, while some months of the school year yet remained, of the progress of their pupils in learning oral English. The test results thus had a motivating effect upon the teachers. Since the Picture Vocabulary Test was not used as the statistical basis of the study it was not repeated at the conclusion of the experiment.

Step 9. Final Evaluation of the Experiment by the Teachers

At the concluding workshop in April on the University campus the teachers were requested to evaluate, in writing, the past year's experiment. They were counseled to be as objective as possible and to avoid accolades. Excerpts from these evaluations will be included in a succeeding chapter.

Step 10. Final Testing of the Experimental Groups

The statistical basis of the study was a comparison of the performance of the pupils in the 1958-59 school year (the control group) on the Metropolitan Readiness Test, with the performance of the 1959-60 pupils (the experimental group) on the same test.

The Metropolitan Test was given successively to one classroom after another on dates extending from January to April, 1960. This attenuated schedule was necessary because testing of the control groups of the preceding year had been done on a similar schedule. To be valid it was important that each experimental group be tested on a calendar date approximating the test date of its corresponding control group.

Step 11. Statistical Evaluation of the Results

Value of "t" was computed to establish the significance of the gains made by the experimental groups over the control groups on the Metropolitan Readiness Test.

III. SUMMARY OF THE CHAPTER

In this chapter the experimental design of the study was described. The implementation of the study was outlined and the attempt was made to give glimpses of the field experiment in action. Some background was given of the Indian communities in which the cooperating classrooms were located. The curricular materials and techniques of second-language instruction, introduced to the teachers in the course of the experiment, were described. Briefly discussed were the test instruments used to measure results of the experiment.

In Chapter IV the analysis and interpretation of results will be presented.

CHAPTER IV

ANALYSIS AND INTERPRETATION OF RESULTS

I. ANALYSIS OF RESULTS

At the conclusion of the field experiment in May, 1960, test data were on file for seven classrooms, representing four schools. One school had two kindergartens and another had three; in those instances the multiple classrooms were combined into a single group for statistical purposes.

Growth in Second-Language Vocabulary

Growth in second-language vocabulary was measured by the Picture Vocabulary Test. Beginning-of-year scores for each experimental group, on this instrument, were placed in rank order and the mid-score obtained by simple inspection. Scores obtained by a second administration of this test to the same groups in January, 1960, four months later, were similarly treated. The observed medians thus obtained roughly equate with, but are not identical to, statistical medians. The results of this testing, amounting to a measure of the vocabulary growth of the experimental

groups from September to January under the techniques recommended to the teachers in the study, are shown graphically in Figure 2, page 70.

Growth in Readiness for Reading

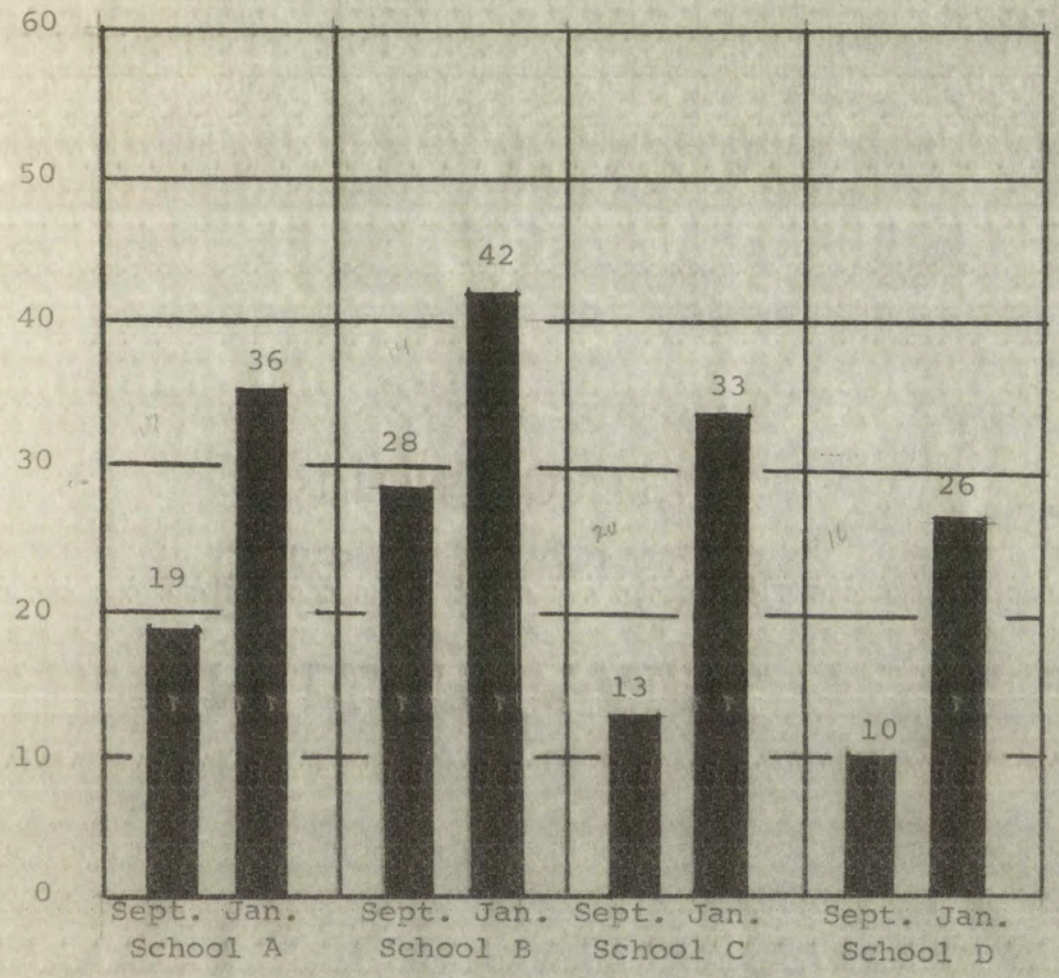
A statistical test of probability, computation of value of "t" was applied to the data derived from administration of the Metropolitan Readiness Test to the comparison groups. Table 1, page 71, presents the statistical results of testing of the four groups. Attention is called to the following details of the table:

At School A the mean percentile of the control group on the test was 49.8; the mean percentile of the experimental group was 72.69. The difference between the groups was represented by a critical ratio: t of 3.41. This is well beyond the one per cent level of confidence, and the difference cannot have resulted from errors of sampling, but may tentatively be attributed to superior performance by the experimental group over the control group on the test.

At School B the mean percentile of the control group on the test was 15.1; the mean percentile of the experimental group was 55.32. The difference between

FIGURE 2

PUPIL GROWTH IN ENGLISH VOCABULARY
IN THE EXPERIMENTAL GROUPS
FROM SEPTEMBER, 1959, TO JANUARY, 1960



NOTE: These data were derived from two administrations of the Test of Knowledge of English for School Beginners for Whom English is a Second Language. According to the formula for scoring, it was possible for the student to achieve a score of 60. This graph should be read as follows: The mid-score of the beginning pupils in School A in September, 1960, was 19; the mid-score of those pupils in January, 1961, was 36. Vocabulary growth over the four-month period is represented by the numerical difference between the two scores. The data for the other schools should be similarly interpreted.

TABLE I

COMPARISON OF THE RESULTS
OF THE CONTROL GROUPS AND THE EXPERIMENTAL GROUPS
ON THE METROPOLITAN READINESS TESTS

	1958-59 Control Groups			1959-60 Experimental Groups			
	Number of Pupils	Percentile Range	Mean Percentile	Number of Pupils	Percentile Range	Percentile	t[d]
School A[a]	17	2-99	49.8	22	25-99	72.69	3.41
School B	17	3-45	15.1	11	11-98	55.32	4.48
School C[b]	21	1-19	3.26	31	1-70	16.20	3.41
School D[c]	64	1-66	15.05	45	3-66	18.0	1.30

[a]Pre-first grade program identical with kindergarten, but pupils were six years of age or older.

[b]Two separate kindergarten classrooms were treated as one group.

[c]Three separate kindergarten classrooms were treated as one group.

[d]Since the populations of the groups were small an adjusted formula was used in computing critical ratio: t. Degrees of freedom were then calculated for each statistical group, and Table of "t" was entered with critical ratios to determine probability.

NOTE: This table should be read as follows: The mean percentile score of the pupils of the control group at School A was 49.8; the mean percentile score of the experimental group at School A was 72.69. Computation of critical ratio: t yields a quotient of 3.41. When Table of "t" is entered with this quotient, reading from a degree of freedom of 37, probability is found to be well beyond the 1 per cent level of confidence. Data for other schools is to be similarly interpreted.

the groups was represented by a critical ratio: t of 4.48. This is well beyond the one per cent level of confidence and the difference cannot have resulted from errors of sampling, but may tentatively be attributed to superior performance by the experimental group over the control group on the test.

At School C the mean percentile of the control group on the test was 3.26; the mean percentile of the experimental group was 16.19. The difference between the groups was represented by a critical ratio: t of 3.41. This is well beyond the one per cent level of confidence and the difference cannot have resulted from errors of sampling, but may tentatively be attributed to superior performance by the experimental group over the control group on the test.

At School D the mean percentile of the control group on the test was 15.05; the mean percentile of the experimental group was 18.0. The difference between the groups was represented by a critical ratio: t of 1.30. This is below the ten per cent level of confidence and cannot be regarded as a significant gain by the experimental group over the control group in performance on the test.

Summary of This Section

The results of the experiment were analyzed and seemed to confirm that, statistically, significant gains had been accomplished in three of the four groups under the experimental conditions introduced by the study. It is now appropriate to examine the results according to non-statistical criteria.

II. INTERPRETATION OF RESULTS

Basing judgment solely upon statistical evidence, it was seen that three of the four experimental groups, taught under the methods recommended by the study, significantly surpassed their respective control groups in readiness for reading. The hypothesis of the study would seem to be sustained.

Is such a conclusion justified? Are the gains in reading readiness to be credited to the experimental conditions introduced by the study? Is the apparent superiority of the (three) experimental groups an outcome of the teachers' professional improvement in the teaching of a second language?

Few field studies, probably, are without their uncontrolled variables. The present study is no exception. The experimenter was aware of some of these variables

before the study was fielded; others became apparent as the experiment proceeded. Attention is now called to certain contingencies that may have had bearing on the validity of the statistical results.

No attempt was made to assure that the pupils in the experimental groups approximated their fellows of the preceding year in mental age, chronological age, and bilingual background. It was a considered judgment not to attempt to match the groups; it was believed that the two classroom generations in the several schools were sufficiently homogeneous "in the nature of things" for purposes of the research. As it developed, this judgment may not have been wholly sound, and this will be pointed out as the groups are discussed one by one.

The teacher variable was not constant throughout the experiment. For example, in the case of two schools the teachers of the experimental groups were not identical to the teachers of the control groups.

A variable was introduced in the administration of the tests. In the case of the Metropolitan test the staff member administering the test to the 1958-59 control groups was not identical in most cases with the staff member (the experimenter) administering this test to the experimental groups. While a standardized test should not

be subject to error because of this contingency, the question of an uncontrolled variable is posed. Referring to the Picture Vocabulary Test, it will be remembered that this test was given to the experimental groups shortly after the beginning of school. What influence did shyness have on the performance of the pupils on this test? Can an adult, strange to the child, obtain maximum performance in the child's second language when both are cloistered in an unfamiliar room? If maximum performance was not obtained, the second test, given some months later when the administrator was familiar to the child, might elicit a vocabulary indicating more growth than had actually occurred.

In discussing the results of the experiment in the various groups, these contingencies, where they have bearing on the particular classroom, will be evaluated. Too, evidence will be presented, gained chiefly from observation by the experimenter, that the teacher actually did incorporate into her classroom procedure the techniques recommended by the study, thus lending support to the position that the gains noted might be credited to improved teaching methods.

Evaluation of the Results at School A

The pre-first teacher in this school continued throughout both years of the experiment. The composition of the comparison groups altered somewhat from the 1958-59 to the 1959-60 term: nine of the seventeen pupils in the control group were non-Indian; fourteen of the twenty-two pupils in the experimental group--a slightly higher percentage--were non-Indian. There is some basis for the observation, therefore, that the increase in the non-Indian majority the second year may have been responsible to some degree for the improved performance of the class. Countering this possibility is the fact that the Indian pupils' scores were rather uniformly distributed when the class was arranged in rank order according to performance on the Metropolitan test. That is, Indian pupils contributed their share to the improvement shown. Five Indian children were found to be high-normal risks for reading, as compared to none in that category the preceding year.

Evidence that this teacher was applying the methods and techniques of second-language teaching was seen in visits to her classroom. She established a social climate appropriate to a beginning classroom. While she pursued an aggressive program of instruction in oral English by

working with subgroups, she permitted those children not momentarily occupied with the teacher to engage in free play. Much of the classroom equipment such as wheel toys, sets of blocks, a scroll-type movie, dolls and carriages and a housekeeping corner were provided through her own ingenuity. She used the master vocabulary list as her goal for the year (In November she reported that her children had had firm exposure to 470 words from the list.), and made extensive use of the picture files provided by the study to support the word list. The involvement of this teacher in the experiment is suggested by excerpts from her appraisal written at the conclusion of the field study:

> The monthly workshop was as the links of a chain tying together the ideas contributed by the teachers and the techniques and teaching aids suggested by the supervisor.
>
> I abandoned my workbook-centered classroom of the year before and converted it into a garden of children. . . . The fact that they could play after their work was done encouraged better work and better attendance. This free play was carried on in English.
>
> Compared to the method I used last year, vocabulary increased at a faster rate, and it was easier to teach children who could understand me, and the children did not want school to end. One of my Navajo boys said, "Let's have two weeks' vacation, then come back again."

It is worthy of note that this teacher had, during the control year, set a pace that was not easy to exceed in the experimental year. The median percentile of her classroom on the Metropolitan test in the spring of 1959 was a commendable 49.8. In the experimental year when she was, in effect, "competing against herself," the median percentile of her classroom was a relatively high 72.69. In the control year this teacher brought twelve of seventeen of her pupils to readiness for reading; in the experimental year twenty-one of twenty-two showed readiness on the test.

It is seen that at School A the teacher variable was constant through the two years and that, while changes in the composition of the comparison groups introduced an irregularity of uncertain effect, the factor does not seem to have been of major consequence. Not forgetting the possibility of an uncontrolled variable in the administration of the tests over the two years, there is good reason to believe that the statistical evidence of a significant gain at this school is valid.

Evaluation of the Results at School B

The kindergarten teacher at this school was the same during both years of the experiment. The comparison

groups were satisfactorily homogeneous: ethnic group was the same, ages (five years) were approximately the same and bilingual background of the children was similar.

There is evidence that this teacher put into practice the techniques recommended by the study. She formulated master daily lesson plans, allotting blocks of time in which she could engage each subgroup, in turn, in language activities suited to its level. Her instruction was based on a succession of units--centers of interest as the family, pets, things-that-go--that were used as vehicles for the introduction of the vocabulary in the master list. She provided time for free play and made much use of story telling and of the record player. In her appraisal of the experiment at the end of the year this teacher wrote in part:

> Comparing last year's program with this year, it is apparent that much professional growth took place on the part of the teacher and as a result much language growth by the children.
>
> One instructional aid that proved very effective was the set of felt cut-outs illustrating the story of the Nativity. My children gave this story, using the cut-outs on the flannel board, on the school's Christmas program. They took much pride in preparing the dialogue and although I wondered how the final night might be, they performed excellently. I wanted them to have this public speaking experience. It was one of the outstanding class projects.

It is seen that at School B the teacher variable was constant and that the comparison groups were homogeneous. The teacher accepted and implemented the practices recommended by the study. Of her seventeen pupils in the control year, only two scored as "average risks" for undertaking beginning reading the following year; the remainder were poor risks. In the experimental year nine of her eleven pupils scored as average or superior risks for undertaking reading. Two were questionable risks. Not forgetting the possibility of an uncontrolled variable in the administration of the tests over the two years, there is good reason to believe that the statistical evidence of a significant gain at this school is valid.

Evaluation of the Results at School C

The situation obtaining at this school during the experiment, particularly during the control year, raises some doubt as to the validity of the results. This is not to say that effective teaching was not done by the teachers during the experimental year; it is to say that several uncontrolled variables were present. The teacher variable was not constant; the first year's teacher was replaced, for the experimental year, by two teachers. The first year's teacher was never reconciled to her

assignment and the year may be described as unsettled for the children. Perhaps as a result of this unsettled year the mean percentile of the control group on the Metropolitan test was extremely low: 3.26. It required, therefore, only nominal improvement in teaching during the experimental year to surpass this performance. While the kindergartens were, both years, composed wholly of Indian children of comparable ages, leading to the assumption that the comparison groups were satisfactorily equated, it is important to call attention to a coincidence occurring in the second year: enrolled in the kindergarten in the fall of 1959 and thus becoming a part of the experimental group were three cousins. These were boys from acculturated families living on the reservation. English was, for these boys, the first language. It is noteworthy that they scored, respectively, first, second and third on the Metropolitan test at the conclusion of the experimental year. They, and one other child, were the only ones in the entire group of thirty-one pupils to achieve a rating of average risk for reading. The rest of their classmates were rated as questionable or poor risks. (None of the control group had achieved average risk the year before.) It is submitted that these boys, rather than the effectiveness of the research study,

had much to do with the gain recorded at School C.

On the other hand the teachers at this school should not be denied the credit that is justly due them. There was evidence in their classrooms of involvement in the experiment. They made use of the picture files provided as aids to teaching vocabulary. Housekeeping corners were installed in their rooms. They secured the cooperation of the janitor in constructing a doll bed, a cupboard of orange crates and a table. The filmstrips circulated by the study were exploited in their rooms. In her evaluation of the experiment at the close of the year one of the teachers wrote:

> The University research program has enlarged my scope of knowledge. Mixing with other teachers and hearing their experiences and the lectures has helped me to build and broaden a kindergarten philosophy, as I had no previous training or experience in kindergarten teaching.
>
> Most of the Indian children are very reserved and one of my biggest problems has been to break this barrier and win the confidence of the children to the point where they will even attempt to talk. How rewarding it is when a child sidles up to confide that he or she has a new article of clothing, or has been some place on a visit.

The complexity of the situation surrounding the experiment at School C suggests caution in attributing the gain recorded to the effectiveness of the experimental study.

Evaluation of the results at School B

Three kindergartens were in operation at this school during both years of the experiment. For statistical purposes the three classrooms were treated as a single group in each year of the study.

While a gain was recorded at School D, represented by a critical ratio, t of 1.30, this size gain is not regarded as significant.

Why was no significant gain recorded at School D? It should be emphasized that the teachers during the experimental year (one of whom was identical with the year before, and two of whom were replacements) attended the same workshops and displayed the same willingness to adopt the recommended techniques as their colleagues in other schools participating in the study. Why, then, was only neutral gain recorded? A number of possibilities may be offered:

> Did the three teachers during the control year, all having their first year's teaching experience, provide such an effective program of second-language teaching that the experimental teachers, even though veterans, were unable to materially surpass the control year program?
>
> Is there a certain ceiling on what kindergarten teachers can accomplish with five-year-old public children in the course of a school year? Those Indian villages from which the school draws

its enrollment are among the more traditional in the Southwest. It may be that the children have fewer opportunities to speak English and less motivation to do so that children of tribal groups more subject to the influence of the host society.

These children may be less mobile than the children of other tribal groups. While children of other groups accompany their parents in travel, the children of these villages spend most of their out of school time, and their summers, in the village. The school, then, may be almost the sole agency giving the children exposure to the second language.

Summary of This Section

The results of the experiment were examined, in this section, from the standpoint of non-statistical criteria. The validity of the results was challenged. Contingencies that tended to support, or to cast doubt upon, the statistical outcomes of the experiment were reviewed. In the light of this non-statistical evaluation it was the experimenter's opinion that in two of the schools the significant results recorded were indeed valid; in a third school the results, although statistically significant, were questioned; in the fourth school the results fell short of an acceptable level of confidence. They were not significant.

CHAPTER V

SUMMARY, CONCLUSIONS AND RECOMMENDATIONS

I. SUMMARY

This study sought to determine whether the achievement of Indian children in learning English and in readiness for reading can be improved when teachers are acquainted with techniques and methods of second-language instruction and are provided with instructional aids that operate to multiply the learning experiences of the children.

The study was implemented by the establishment of a working relationship with selected kindergarten and pre-first teachers in New Mexico public schools enrolling Indian pupils. This relationship was maintained by visits to classrooms in the field by members of the research staff and by means of monthly workshops attended by the cooperating teachers on the University of New Mexico campus.

Teachers were asked to adjust their customary programs to incorporate the following techniques and methods: (1) Determine the beginning-of-the-year English

vocabulary of their pupils by means of a vocabulary test; (2) subgroup their children for instructional purposes according to facility in English; (3) accept as the instructional goal for the year a master word list of 2,053 items; (4) teach the vocabulary of the master list through the medium of units planned to develop selected blocks of words from the list; (5) reinforce the vocabulary through use of a variety of instructional aids.

Instructional aids provided or recommended by the study for teaching the vocabulary included: (1) A library of pictures especially prepared to aid the child in visualizing the word-concept being taught; (2) three-dimension objects serving to objectify vocabulary and elicit oral English; (3) the use of the tape recorder for periodic demonstration to the children of their progress in learning English; (4) a library of juvenile filmstrips to be used as an incentive to utterance of the second language; (5) numerous other teaching aids including selected games and finger plays, picture books, flannel boards, jumbo blocks and phonograph records.

Statistical evaluation of the study was done by comparing the performance of four experimental groups (children taught under the experimental conditions introduced by the study) on the Metropolitan Readiness Test,

with the performance of control groups (children taught under conventional methods) on the same test instrument. A test of probability, computation of critical ratio: t, was the statistical device used. Progress of the experimental groups in second-language learning was measured, during the experimental year, by use of the Picture Vocabulary Test.

Statistical analysis at the conclusion of the experiment demonstrated that three of the experimental groups had made significant gains over their respective control groups in readiness for reading. Gains in the fourth group were not significant.

The results of the experiment were further analyzed from the standpoint of non-statistical criteria. The effects of certain unanticipated variables on the validity of the results in the schools were considered. As a result of this evaluation the reliability of the experimental outcome was questioned in one of the three groups. If this subjective evaluation is accepted the final results were, then: two statistical groups showed highly significant gains; reservations are held in regard to the third group; and the fourth group, while showing measurable gain, fell short of a degree of probability that is acceptable in research.

with the performance of control groups (children taught under conventional methods) on the same instrument, a test of probability, comparable statistically only; was the statistical device used. Progress in the experimental groups in stimulus-response learning was measured, during the experimental year, by use of the Picture Vocabulary Test.

Statistical analysis of the results of the experiment demonstrated that at all three grade levels the experimental groups had made significant gains over their respective control groups in reading as measured by the Fourth Grade Vocabulary Test.

The results of the experiment were further analyzed from the standpoint of non-statistical criteria. The effects of certain uncontrolled variables on the validity of the results in the schools were considered. The results of this evaluation the validity of the experimental outcome was questioned in one of the test groups. If this subjective evaluation is accepted the final results were, then: two statistical groups showed highly significant gains; reservations are held in regard to the third group; and the fourth group, while showing measurable gain, fell short of a degree of probability that is acceptable in research.

II. CONCLUSIONS

It is accepted that research projects, if they are to be considered sound, must be able to answer affirmatively the following questions: Could this research be duplicated with the expectation that the results of the second experiment would parallel, approximately, the results of the initial experiment? Can the experimenter confidently say, "If you do these things, under these conditions, you may predict these results"? The answer to these questions, at the conclusion of this experiment, seems to be yes.

Granting, for the moment, that the over-all results of the research were positive, the question may be asked: What are the implications? It is somewhat surprising to the experimenter that a modest program, as the field experiment was, should yield even the nominal results shown. The practices recommended by the study could have had only limited impact upon the teachers. That is, thinking in terms of teaching time--the aggregate of hours spent by the teacher in contact with her pupils during the winter--the techniques offered by the study amounted to only a fraction of her classroom activities. Yet the experiment generated considerable enthusiasm and seemed to upgrade the quality of teaching.

One is forced to conclude: the need must have been great indeed.

The research was characterized on an early page as, in actuality, an experiment in curriculum building and teacher training focused on a specific instructional problem, namely: teaching a second language to Indian children. Evidently such activity--re-examination of the curriculum of the bilingual school and training of teachers to teach that curriculum--is at a low ebb in New Mexico public schools accommodating Indian children. Repeatedly the teachers volunteered such expressions as, "This is the first time I have really understood that teaching English to the Indian children was my first objective," or, "My program was mostly a bag of tricks until I began attending the workshops." This is not to applaud the present research program; it is to deplore that teachers in the field, charged with the demanding task of teaching the prevailing tongue to a segment of New Mexico's future citizens, are so starved, literally, for guidelines in teaching that language.

III. RECOMMENDATIONS

The Need for Definition of Bilingual Education Problems

Whatever the philosophy or method of second-language teaching that is espoused in the local districts, administrators in the districts need to define the scope of the bilingual problem, to communicate the policies and goals of the education program to personnel at all levels and to provide assistance to the teachers in the form of qualified supervision, curricular materials and in-service training keyed to second-language teaching. The regrettable alternative is the situation as it presently stands: assign a teacher trained to teach Caucasian children, to the bilingual classroom, provide her with materials designed for a modern urban classroom and offer her the counsel of a supervisor who is oriented toward the content-centered curriculum of the English-speaking classroom. Research, on the local level and of wider compass, can contribute to this definition of the problem of educating bilingual children.

The Need for Courses in Second-Language Teaching

Courses now available on New Mexico college campuses are offered only in association with the teaching of a specific language such as Spanish. These courses are

catalogued under modern language departments. Needed are courses sponsored by, or through the instrumentality of, colleges of education. The intent of such courses should be to give the prospective teacher of bilingual children a perception of her field of specialty. Components of such a course should be: a survey of the nature of language (from the anthropological point of view); an acquaintance with the development of speech in the maturing child (from the child-development point of view); a glimpse of bilingualism in its worldwide expression; some inquiry into ethnic and cultural factors that relate to the education and acculturation of minority groups and an exploration of the language arts program in the elementary school with attention to adaptations indicated for the bilingual situation.

The Need for Research in Alternate Approaches to Second-Language Teaching

Valuable would be research determining the effectiveness of modern language methods in elementary grades enrolling Indian children. The modern language method, sometimes called the "linguistic" method, proposes much drill on selected pattern-sentences, with close attention to pronunciation, liaison, stress, intonation and word order.

Concluding Statement

Teaching English as a second language promises to be of active concern in the American Southwest for some time to come. To predict the time--twenty years hence, forty years hence--when English shall have become the first language for the Indian groups of the area, is at best a guess. It appears certain that in the Southwest native dialects will survive beyond those of any other tribal groups in the continental United States.

The problem of teaching English to Indian children merits, then, continued attention. Techniques of second-language instruction need to be shifted from improvisation to a systematic approach. While the final word has not been said on methods of second-language teaching, well-designed programs are at this moment operative in numerous situations over the world. The teacher of Indian children in New Mexico needs to familiarize himself with those programs and adapt them to the local setting.

BIBLIOGRAPHY

BIBLIOGRAPHY

Branch of Education, Bureau of Indian Affairs. Minimum Essential Goals for Indian Schools. Lawrence, Kansas: The Haskell Press, 1953.

Bryngelson, Bryng, and Elaine Mikalson. Speech Correction Through Listening. Chicago: Scott, Foresman and Company, 1959.

Burris, Elizabeth Parris. "Beginner's Speaking Vocabulary." (No imprimatur.)

Dolch, Edward W. The Dolch Basic Sight Word Test. Champaign: The Garrard Press, 1942.

Dozier, Edward F. "Two Examples of Linguistic Acculturation," Language, 32: 147-157, May, 1957.

Educational Policies Commission. Contemporary Issues in Elementary Education. Washington: National Education Association of the United States, 1960.

Estvan, Frank J., and Elizabeth W. Estvan. The Child's World: His Social Perception. New York: G. P. Putnam's Sons, 1959.

Gates, Arthur I. A Reading Vocabulary for the Primary Grades. New York: Bureau of Publications, Columbia University, 1935.

Heffernan, Helen, and Vivian Edminston Todd. The Kindergarten Teacher. Boston: D. C. Heath and Company, 1960.

Herr, Selma E. "Effect of Pre-first-grade Training upon Reading Achievement among Spanish-American Children," The Journal of Educational Psychology, XXXVII (February, 1946), pp. 87-102.

Hildreth, Gertrude H., and Nellie L. Griffiths. Metropolitan Readiness Tests. Yonkers-On-Hudson: World Book Company, 1949.

Hughes, Marie M. Teaching a Standard English Vocabulary. Las Cruces: Bronson Printing Company, 1932.

International Kindergarten Union. A Study of the Vocabulary of Children before Entering the First Grade. Baltimore: International Kindergarten Union, 1928.

Lambert, Hazel M. Early Childhood Education. Boston: Allyn and Bacon, Inc., 1960.

MacAulay, J. D. "Elementary Education--Five Straws in the Wind," Phi Delta Kappan, XLI (June, 1960), pp. 394-396.

Malherbe, E. G. The Bilingual School. London: Longmans, Green and Co., 1946.

McNickle, D'Arcy. "Indian and European: Indian-White Relations from Discovery to 1887," The Annals of the American Academy, 311:1-11, May, 1957.

Poulos, W. T. "The Ector County Oral Vocabulary Bombardment." Odessa, Texas: Ector County Public Schools, 1960. (Mimeographed.)

Sapir, Edward. "Culture, Genuine and Spurious," Culture, Language and Personality, David Mandelbaum, editor. Berkeley: University of California Press, 1956. Pp. 78-119.

Spindler, George D., and Louise S. Spindler. "American Indian Personality Types and Their Sociological Roots," The Annals of the American Academy, 311: 147-157, May, 1957.

Stone, Clarence R. Progress in Primary Reading. St. Louis: Webster Publishing Company, 1950.

Strickland, Ruth G. The Language Arts in the Elementary School. Second Edition. Boston: D. C. Heath and Company, 1957.

Thompson, Hildegard. "Education among American Indians: Aspects," The Annals of the American Academy, 311: 94-104, May, 1957.

_____. _Navajo Life Stories_. Phoenix: Printing Department, Phoenix Indian School, Revised, 1944.

_____. "Teaching English to Navajo Beginners." Window Rock, Arizona: Office of Indian Affairs, 1943. (Mimeographed.)

Tiersma, L. S. _Teaching Navajo Speaking Children_. Albuquerque: The University of New Mexico Press, 1945.

Voegelin, C. F. "A Expanding Language, Hopi." _Plateau_, Flagstaff, Arizona: Northern Arizona Society of Science and Art, October, 1959, pp. 33-39.

Voegelin, Erma W. "The Reorganization of Mexican Indians." _The Annals of the American Academy_, 311: 127-136.

Zintz, Miles V. "A Test of Knowledge of English for School Beginners for Whom English is a Second Language." Unpublished. The University of New Mexico, Albuquerque, 1959.

APPENDIX "A"

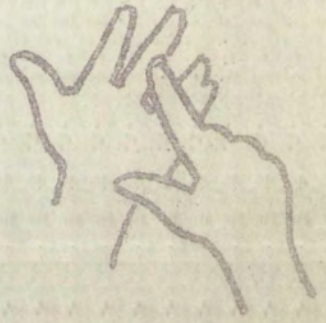
The Family -

This is the mother
so happy and gay.

(Point to thumb.)

This is the father
who works all the day.

(Point to second finger.)



This is the brother
so strong and tall.

(Point to middle finger.)

This is the sister
who plays with her doll.

(Point to fourth finger.)

This is the baby
the sweetest of all.

(Point to little finger.)

That is the whole family
great and small.

(Point to all fingers.)

The Family

This is the mother
so happy and gay.

(Point to thumb.)

This is the father
who works all the day.

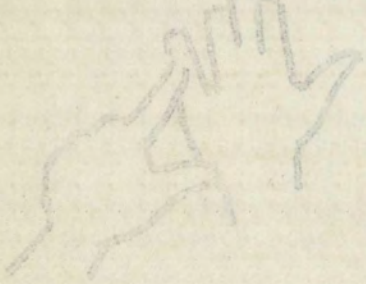
(Point to second finger.)

This is the brother
so strong and tall.

(Point to middle finger.)

This is the sister
who plays with her doll.

(Point to fourth finger.)



This is the baby
the sweetest of all.

(Point to little finger.)

That is the whole family
great and small.

(Point to all fingers.)

An Old Owl

An old owl sat on the limb of a tree
And he was still as still could be.

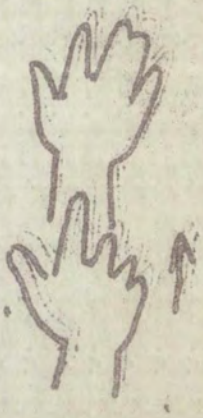
(1. Right arm extended for limb of tree.
Left arm represents owl.)

It was night and his eyes looked just like this.
He looked all around and not a thing did he miss.

(2. Open eyes wide. Make rings around eyes with
thumbs and forefingers.)

Five little brownies crept up the tree,
And they were (as) still, as still could be.

(3. Fingers on right hand represent brownies.
They should "creep" up the tree.)



The old owl looked around and said,
"Who, who!"

(4. "Brownies" still on tree,
but eyes look all around)

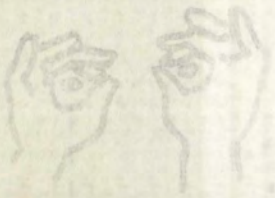
And away went the brownies,
Away they flew.

(5. Hide hands quickly.)

An Old Owl

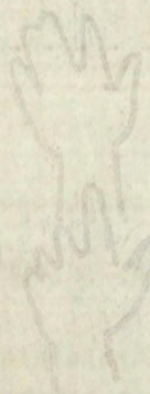
An old owl sat on the limb of a tree,
And he was still as still could be.

(1. Right arm extended for limb of tree.
Left arm represents owl.)



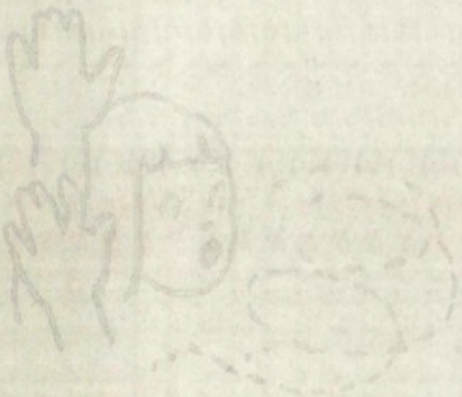
It was night and his eyes looked just like owls.
He looked all around and not a thing did he miss.

(2. Open eyes wide. Make rings around eyes with
thumbs and forefingers.)



Five little brownies crept up the tree,
And they were (as) still, as still could be.

(3. Fingers on right hand represent brownies.
They should "creep" up the tree.)



The old owl looked around and said,
"Who, who?"

(4. "Brownies" still on tree,
but eyes look all around)

And away went the brownies,
Away they flew.

(5. Hide hands quickly.)

The Apple Tree
(or, The Piñon Tree)

Way up high in the apple tree.
(Hands way up in air.)

Two little apples smiled down at me.
(Hands around eyes like glasses.)

I shook the tree as hard as I could.
(Shake tree.)

Down came the apples.
(Motion to ground.)

Umm, they were good.
(Rub stomach.)

The Apple Tree
(or The Pitcher Tree)

Way up high in the apple tree.
(Hands way up in air.)

Two little apples smiled down at me.
(Hands around eyes like glasses.)

I shook the tree as hard as I could.
(Shake tree.)

Down came the apples.
(Motion to ground.)

Mm, they were good.
(Rub stomach.)

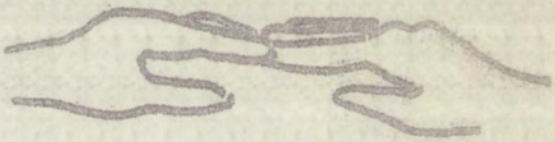
Mother's Knives and Forks

These are mother's
knives and forks.

(Fingers interwined.)

This is mother's table.

(Back of Hand.)



This is grandma's
looking glass.

(Diamond with pointers and thumb)

And this is baby's cradle.

(Cup hands and rock.)

Mother's Knives and Forks

These are mother's
knives and forks.

(Fingers interwined.)

This is mother's table.

(Back of hand.)

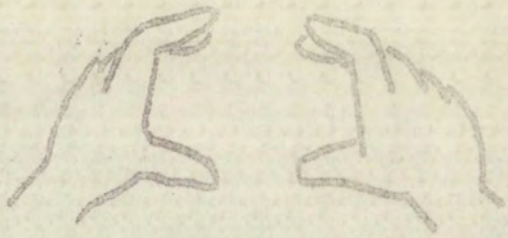
This is grandma's
looking glass.

(Diamond with pointers and thumb)

And this is baby's cradle.

(Cup hands and rock.)

Playing With The Baby



Here's a ball for baby,
big and soft and round.

(Make it with hands.)

Here's the baby's hammer,
oh, how he can pound.

(Pound with hands.)

Here's a big umbrella,
keeps the baby dry.

(Made with hands.)

Here's the baby's cradle,
rock-a-bye-bye.

(Make cradle with hands.)

Here's the baby's trumpet,
toot-to-toot-too-too.

(Play trumpet with hands.)

Here's the way that baby plays,
"Peek-a-boo", with you.

(Play)

Playing With the Baby

Here's a ball for baby,
big and soft and round.

(Make it with hands.)

Here's the baby's banner,
oh, how he can pound.

(Pound with hands.)

Here's a big chocolate,
hope the baby digs.

(Make with hands.)

Here's the baby's cradle,
rock-a-bye-bye.

(Make cradle with hands.)

Here's the baby's trumpet,
toot-toot-toot-toot.

(Play trumpet with hand.)

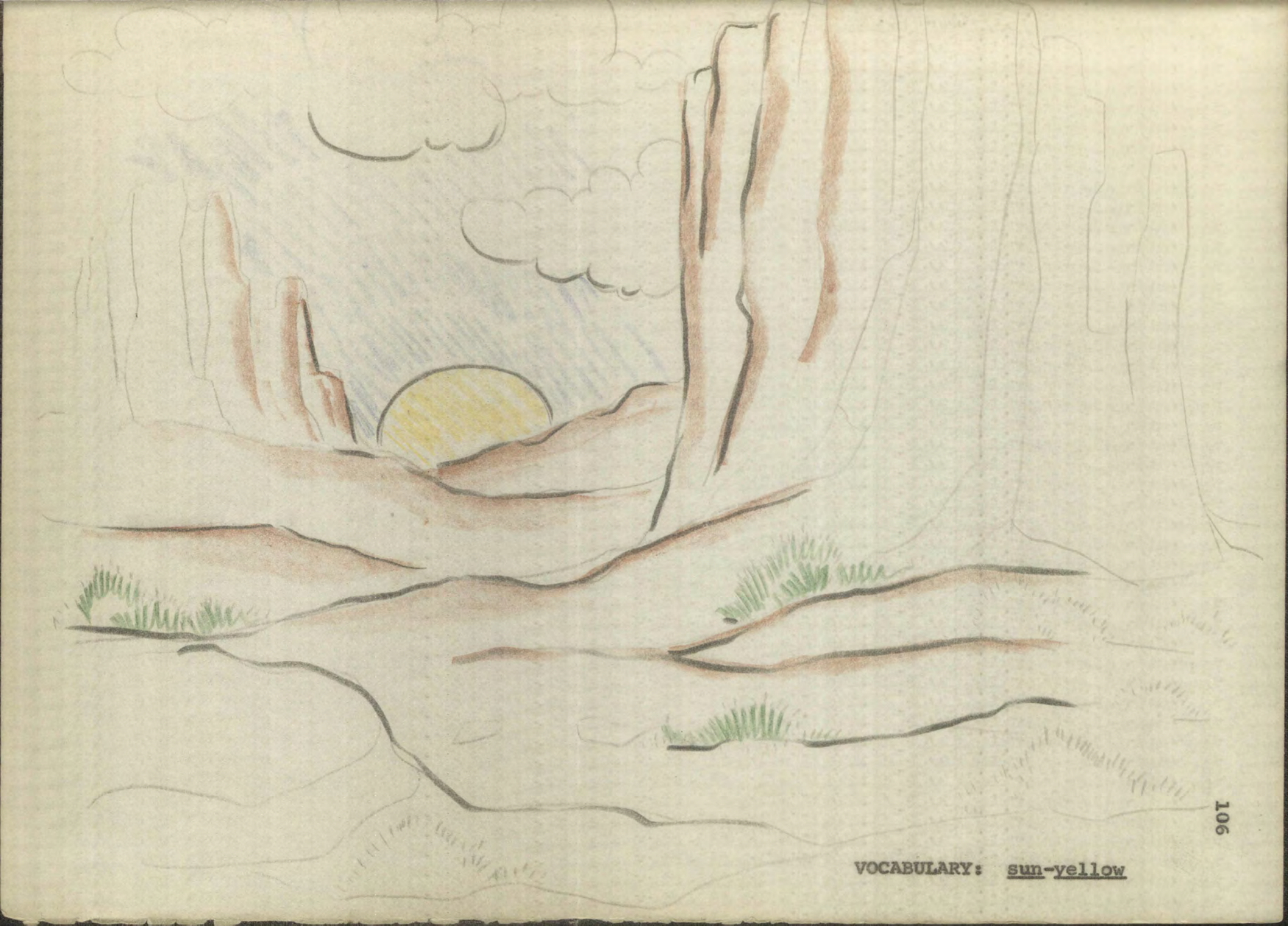
Here's the very that baby plays,
"Peek-a-boo", with you.

(Play)

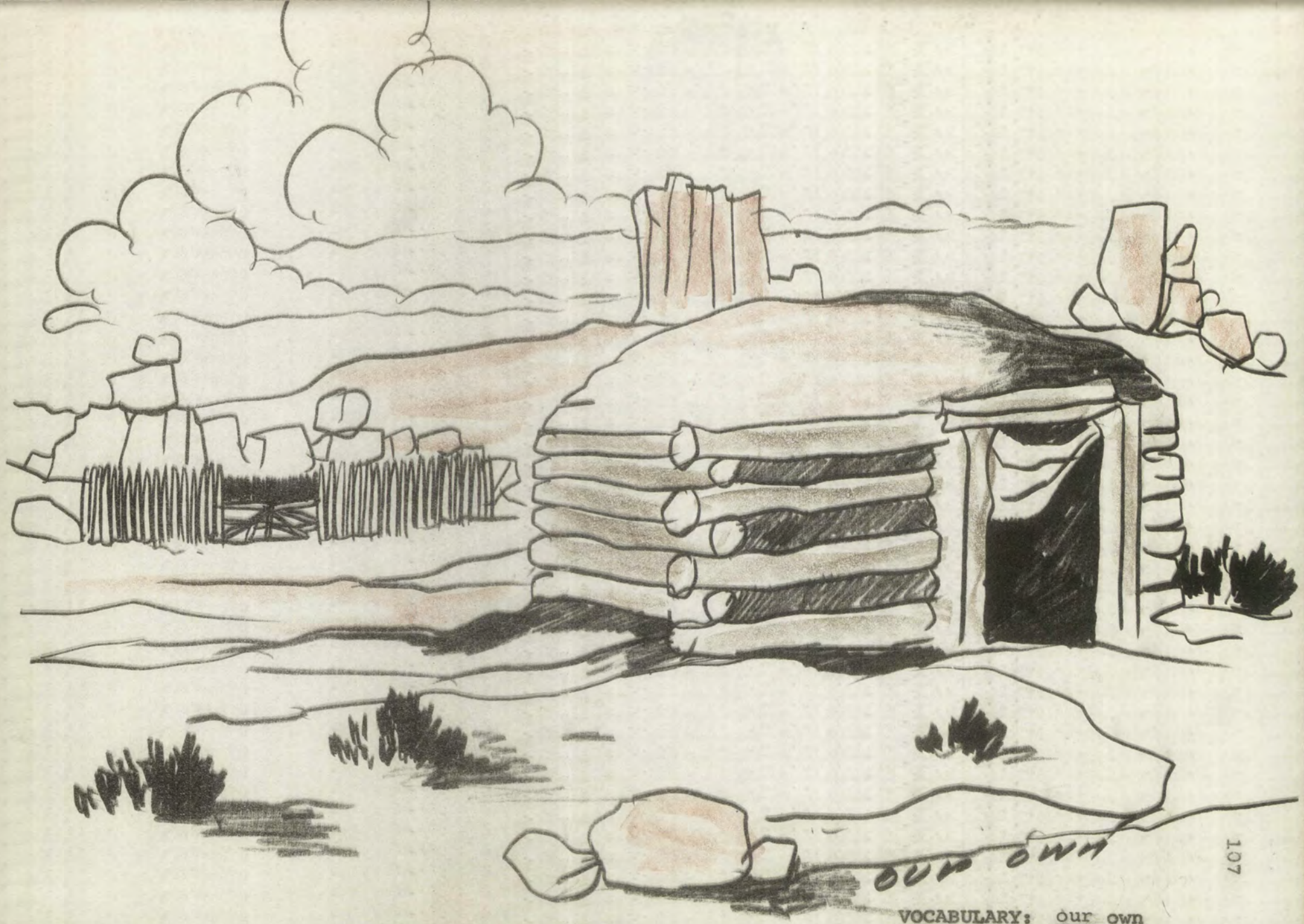
APPENDIX "B"

VOCABULARY: round

VOCABULARY: <u>three</u>



VOCABULARY: sun-yellow



VOCABULARY: our own

VOCABULARY: <u>run</u> <u>and</u> <u>play</u>

APPENDIX "C"

A TEST OF KNOWLEDGE OF ENGLISH
FOR SCHOOL BEGINNERS
FOR WHOM ENGLISH IS A SECOND LANGUAGE

In Four Parts

Based upon a random sampling of
a composite word list of 2,053 words

Prepared by
THE INDIAN RESEARCH STUDY
College of Education, University of New Mexico
Miles V. Zintz, Director

Manual of Directions

for

A TEST OF KNOWLEDGE OF ENGLISH FOR SCHOOL BEGINNERS

For Whom English is a Second Language

The Test was designed to help teachers of young children for whom English is a second language. It is hoped that this test will serve as a pre-reading readiness test to give the teacher some objective measure of how much English the child has at his command early in his first year in school. After the child demonstrates a near perfect score on this test, he is then ready to try a regular standardized reading readiness test before entering upon a formal reading program.

It is hoped that this test will be useful to the teacher in these ways:

(1) This test should give the teacher an instrument which she can use early in the fall of the child's first year in school to see how much he does understand of the minimum word list for formal reading.

(2) This test should give the teacher some objective basis for grouping children early in their first year so that those who have some knowledge of English will be allowed to progress as fast as possible and perhaps make up first grade work during the first year in school. There is a real need for those who have the ability to do so to progress to the second grade the second year in school.

(3) This test, administered individually, will give the teacher an instrument through which she can learn more about each individual child. Administered at relatively short intervals in its

different forms, the teacher will have a measure of progress for each child from the fall of the year until such time as he demonstrates readiness for reading.

COMPOSITION OF THE TEST

The first two parts of this test are based upon a random sampling of a composite word list of 2,053 words. This word list was a compilation of all the words contained in The Gates Vocabulary List for the Primary Grades,[1] Stone's Primary Word List,[2] The Dolch Basic Sight Word List of 220 Common Words,[3] The 95 Commonest Nouns,[4] Tireman's minimum vocabulary for first grade Spanish-speaking children,[5] The Branch of Education, Bureau of Indian Affairs, Minimum English Vocabulary for Pre-First Grade,[6] and the 500 most frequently used words in the International Kindergarten Union Word List.[7] The 2,053

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[1]Arthur I. Gates, A Reading Vocabulary for the Primary Grades, (New York: Columbia University, 1935).

[2]Clarence R. Stone, Progress in Primary Reading, (St. Louis: Webster Publishing Company, 1950, pp. 120-130.

[3]Edward W. Dolch, The Dolch Basic Sight Word Test, (Champaign: The Garrard Press, 1942).

[4]Edward W. Dolch, The 95 Commonest Nouns, (Champaign: The Garrard Press, 1942).

5 Lloyd S. Tireman, Teaching Spanish-Speaking Children, (Albuquerque: The University of New Mexico Press, 1948).

[6]Bureau of Indian Affairs, Minimum Essential Goals for Indian Schools, Beginning Year, Levels One and Two, (Third edition, Lawrence, Kansas: The Haskell Press, 1953), pp. 46-47.

[7]International Kindergarten Union, A Study of the Vocabulary of Children before Entering the First Grade, (Baltimore: International Kindergarten Union, 1928).

words were then categorized as nouns, verbs, modifiers, and connectors. Each of these four lists were random sampled to obtain a pro-rata share of each type. A random number was used to count through the lists of words. All the words drawn in the random list were used. This explains the attempt at eliciting responses from children for rather abstract concepts. It also explains why some of the items may not seem to be the most needed ones by children in the Southwest. Part I consists of 51 items, of which 26 are nouns, 15 are verbs and 10 are modifiers and connectors. Part II consists of 36 items, of which 19 are nouns, 10 are verbs, and 7 are connectors or modifiers.

In Part III, an attempt is made to elicit an informal language response by showing the child pictures about which he is urged to tell a story. Part IV is a structured test of twenty comprehension questions. Responses to the questions require understanding of the concepts involved and the ability to phrase an answer that does not contain the words of the question itself.

DIRECTIONS FOR ADMINISTERING

Conditions

Arrange a quiet place without distractions where the teacher and child can work continuously for about twenty minutes. A teacher may be able to test three or four children each day for an eight or ten day period and in this way be able to test every child in her room. If there is a special games teacher, a special music teacher, or a special art teacher who works with the children, this may supply an extra short period when the teacher could test one child.

The test should be administered by the classroom teacher because:

(1) It gives the teacher a chance to become better acquainted with the child and to see his limitations and possibilities.

(2) Most children, for whom English is a second language, will respond well to their regular classroom teacher.

words were [illegible]
and connectors. [illegible]
sampled to obtain [illegible]
random number was [illegible]
words. All the words [illegible]
used. This explains [illegible]
from children. The [illegible]
explains why [illegible]
most needed ones [illegible]
consists of 32 items, [illegible]
verbs and 10 [illegible]
consists of 36 items [illegible]
verbs, and 7 [illegible]

In Part [illegible]
informal language [illegible]
about which he is [illegible]
structured [illegible]
responses to the [illegible]
concepts involved [illegible]
that does not [illegible]

<u>Conclusions</u>

Average [illegible]
the teacher and [illegible]
twenty minutes. [illegible]
four children [illegible]
and in this way [illegible]
If there is a [illegible]
teacher, or [illegible]
children, this may [illegible]
the teacher could [illegible]

The test [illegible]
teacher because:

(1) [illegible]

(2) [illegible]

(3) One of the major purposes of the test is to provide the teacher with a measure of progress in the child's learning to use English.

Directions for Part I

There are 51 rows of pictures in Part I of the test. Ask the child to point to the pictures indicated by number below. Say to the child:

"I am going to show you some pictures. There will be four in a row. I will ask you to point to one of them. Each time you will point to the picture which I ask you to find." (For example: Say, "Point to the airport.")

NOUNS

1. airport	10. end	19. party
2. berry	11. feather	20. piano
3. box	12. fly	21. squirrel
4. bunny	13. gasoline truck	22. table
5. suitcase	14. jar	23. tie
6. children	15. knife	24. tractor
7. cowboy	16. lettuce	25. umbrella
8. daughter	17. motor	26. woods
9. door	18. over-alls	

VERBS

27. Where can I buy something to eat?
28. Who is cleaning?
29. Which one can crow?
30. Which picture shows give? ("I will give it to you.")
31. Which one is something hanging?
32. Which one can hop?
33. Which one can mew?
34. Which ones must pay?
35. Which one is returning from a trip?
36. Which one can shoot?
37. Point to the one where groceries are sold. (Where can I buy it?)
38. Who can swing?
39. Which dress is torn?
40. Who is waiting for someone else to come?
41. Which one is a toy to wind?

MODIFIERS AND CONNECTING WORDS

42. Which girl is behind something?
43. Which picture shows both children?
44. Which one has enough in his basket?
45. Which ones are even in the row?
46. Which one is the heavy (heaviest) animal?
47. Which picture shows more ducks than the others?
48. Which one is a narrow road?
49. Which apple is ripe?
50. Which one is sick (not well)?
51. Which one is a wild animal?

Record on the separate answer sheet the child's responses. If the child knows most of the answers it may be easiest to check only those he misses. Where it is possible to do so, it may be best to write in the wrong responses on the answer sheet.

The score on Part I is the number of correct responses divided by 4. If the fraction in this division is one-half or greater, the individual should be given the next higher score.

Directions for Part II

Part II is a recall test based on the compiled word list. Ask the child to tell you the name of the picture in each case. It is recognized that a recall test, in which the child gives the name of the picture, is more difficult than Part I in which the child need only recognize the picture when the name is supplied for him.

It is requested that each tester write in substitute responses given by children for the 36 pictures in Part II. The pictures were planned to elicit the following responses:

1.	church	13.	Indian	25.	follow
2.	fingers	14.	eye	26.	ear
3.	glasses	15.	frog	27.	put
4.	hill	16.	handkerchief	28.	pink
5.	lines	17.	lap	29.	slow
6.	nut	18.	row	30.	tiny
7.	paw	19.	sit	31.	angry (mad)
8.	policeman	20.	stop	32.	little
9.	string	21.	trot	33.	after
10.	vest	22.	work	34.	with
11.	bathroom	23.	bought	35.	chair
12.	bridge	24.	draw	36.	scissors

Specific suggestions for eliciting desired responses:

5. Where are the birds sitting?
7. Point to the paw and ask, "What is this called?"
12. Point to the bridge and ask, "What is this"?
16. What is the boy using?
17. Where is the little girl sitting?
18. How do you make the boat go?
19. What is the dog doing in this picture?
20. What does the red light mean?
21. What is the horse doing?
22. What is the man doing?
23. What has this little girl just done?
25. What is the little colt doing?
27. What has father done with the apples?
29. How does a turtle move?
31. How does the bull look?
32. "Mother is big; the girl is _____."
33. When will the little boy get his drink of water?
34. What is the father doing? (Walking <u>with</u> his children.)

    <u>or</u>

    How do the children go? (They go <u>with</u> their father.)

The score is the number of pictures adequately identified divided by <u>3</u>. A maximum score of 12 may be earned on this part of the test.

<u>Directions for Part III</u>

Part III consists of three picture cards for the child to make up stories about. Part III is designed to measure a small sample of the child's ability to put

English into context. This technique is used in the Stanford-Binet Intelligence Scale at age III-6 to test the child's ability to formulate sentence responses. In that test, the child gets no credit for only naming separate words. In this test, an attempt is made to find out what length of response is obtained from each child. These are classified as:

no response
single word answers (naming)
two word answers (phrases)
two word sentences
longer simple sentences
compound sentences
complex sentences

An attempt is made to evaluate these responses by giving the child one point for naming names and using phrases that are not sentences; two points for using two word sentences; three points for longer simple sentences; and four points for compound or complex sentences. Maximum score for the three stories is 12 points.

Directions: Say to the child, "Tell me a story about this picture."

Directions for Part IV

Ask the child each of the 20 comprehension questions. All answers of one word or more that give indication that the child understands are given credit.

The score for Part IV is the number of correct answers given.

NAME______________________________ Date ______
Last First Middle

AGE____________________ Schools ____________
Years Months

	SCORE	
Part	Score	Rank
I.	_____	_____
II.	_____	_____
III.	_____	_____
IV.	_____	_____
TOTAL	_____	_____

Rating _________

A TEST OF KNOWLEDGE OF ENGLISH FOR SCHOOL BEGINNERS

Answer Sheet

PART I. Indicate by a plus sign or check mark each correct answer.

1. _____
2. _____
3. _____
4. _____
5. _____
6. _____
7. _____
8. _____
9. _____
10. _____
11. _____
12. _____
13. _____
14. _____
15. _____
16. _____
17. _____
18. _____
19. _____
20. _____
21. _____
22. _____
23. _____
24. _____
25. _____
26. _____
27. _____
28. _____
29. _____
30. _____
31. _____
32. _____
33. _____
34. _____
35. _____
36. _____
37. _____
38. _____
39. _____
40. _____
41. _____
42. _____
43. _____
44. _____
45. _____
46. _____
47. _____
48. _____
49. _____
50. _____
51. _____

* * * * * * * * * * * * * * * * * * * *

PART I. SCORE
Number Right _____
÷ 4 = _________

* * * * * * * * * * * * *

PART II. Indicate by a check mark if the child responds as indicated. Write his response on the space provided if it is not the same.

1. church __________
2. fingers __________
3. glasses __________
4. hill ____________
5. lines ___________
6. nut _____________
7. paw _____________
8. policeman ________
9. string __________
10. vest ____________
11. bathroom ________
12. bridge __________
13. Indian __________
14. eye _____________
15. frog ____________
16. handkerchief ____
17. lap _____________
18. row _____________
19. sit _____________
20. stop ____________
21. trot ____________
22. work ____________
23. bought __________
24. draw ____________

NAME _____
Last First

AGE _____
Years Mons.

A TEST OF KNOWLEDGE OF HOME ECONOMICS

ANSWER KEY

PART I. Indicate by a plus (+) the best answer for each current event.

1. _____ 11. _____
2. _____ 12. _____
3. _____ 13. _____
4. _____ 14. _____
5. _____ 15. _____
6. _____ 16. _____
7. _____ 17. _____
8. _____ 18. _____
9. _____ 19. _____
10. _____ 20. _____

+ + + + + + + + + + + + + + + + + + + +

PART II. Indicate by a cross (x) the best reason for each statement. Write the number of the reason in the space provided.
If it is not one of the reasons, write "0".

1. Church _____
2. Flowers _____
3. Classes _____
4. Bill _____
5. Jobs _____
6. Work _____
7. Pay _____
8. Policeman _____
9. Sewing _____
10. Vote _____
11. Bathroom _____
12. Bridge _____

25. follow _____
26. ear _____
27. enough _____
28. pink _____
29. slow _____
30. tiny _____
31. angry (mad) _____
32. little _____
33. after _____
34. with _____
35. chair _____
36. scissors _____

* *

PART III. Record verbatim all of the child's responses. Use reverse side of sheet if necessary. (Directions: Tell me a story about this picture.)

Score

1. _____
_____
_____
_____ _____

2. _____
_____
_____
_____
_____ _____

3. _____
_____
_____
_____
_____ _____

PART III. SCORE

Total _____

* * * * * * * * * * * *

PART IV. INDICATE BY A PLUS SIGN EACH CORRECT RESPONSE:

1.__	11.__
2.__	12.__
3.__	13.__
4.__	14.__
5.__	15.__
6.__	16.__
7.__	17.__
8.__	18.__
9.__	19.__
10.__	20.__

PART IV. SCORE

Number Right ___

* * * * * * * * * * * *

25. follow _____
26. ear _____
27. enough _____
28. pink _____
29. slow _____
30. tiny _____
31. angry (mad) _____
32. little _____
33. after _____
34. with _____
35. chair _____
36. scissors _____

* *

PART III. Record verbatim all of the child's responses.
Use reverse side of sheet if necessary.
(Directions: Tell me a story about this picture.)

Score	
	1. _____
	_____
	_____
	_____
	2. _____
	_____
	_____
	_____
	3. _____
	_____
	_____
	_____
	_____

PART III. SCORE

Total _____

* *

PART IV. INDICATE BY A PLUS SIGN EACH CORRECT RESPONSE:

1.	___	11.	___
2.	___	12.	___
3.	___	13.	___
4.	___	14.	___
5.	___	15.	___
6.	___	16.	___
7.	___	17.	___
8.	___	18.	___
9.	___	19.	___
10.	___	20.	___

PART IV. SCORE

Number Right ____

* *



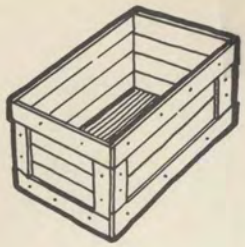




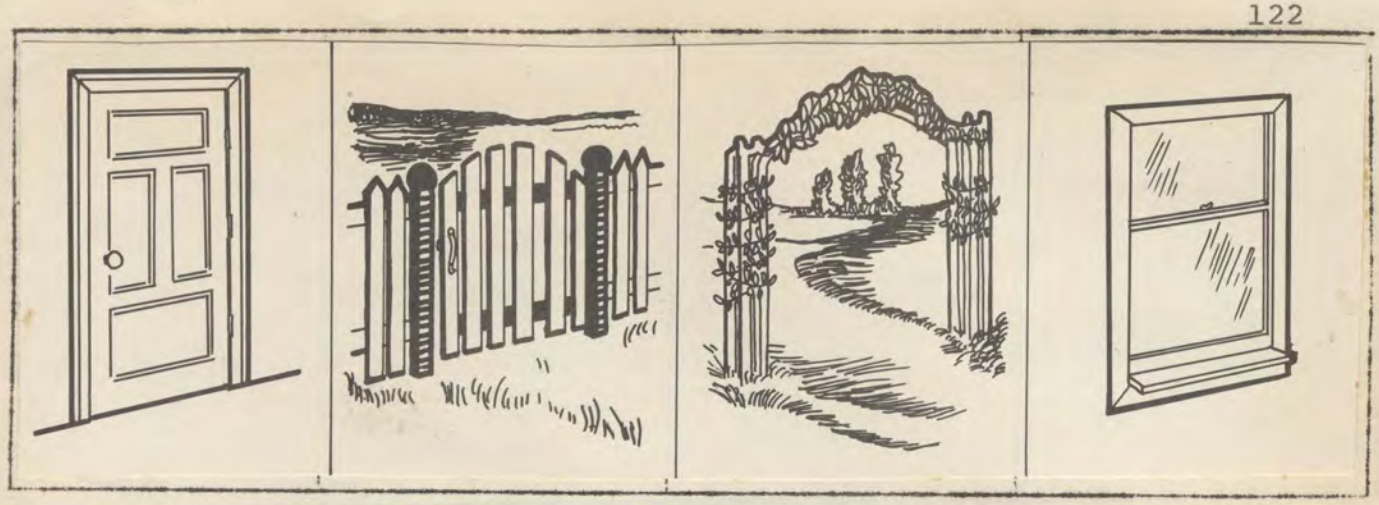




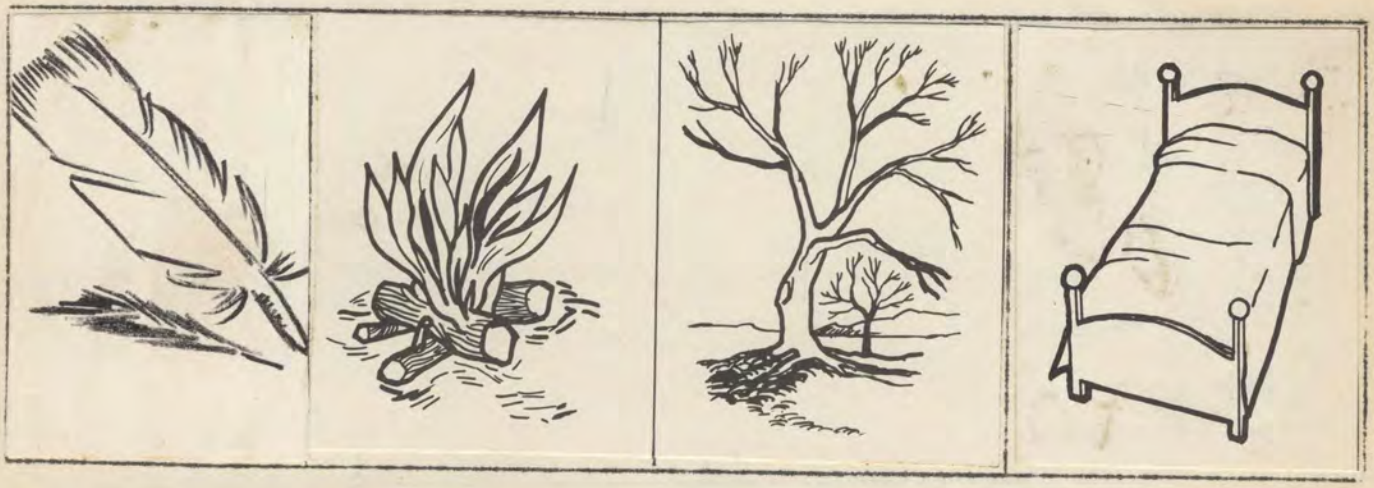


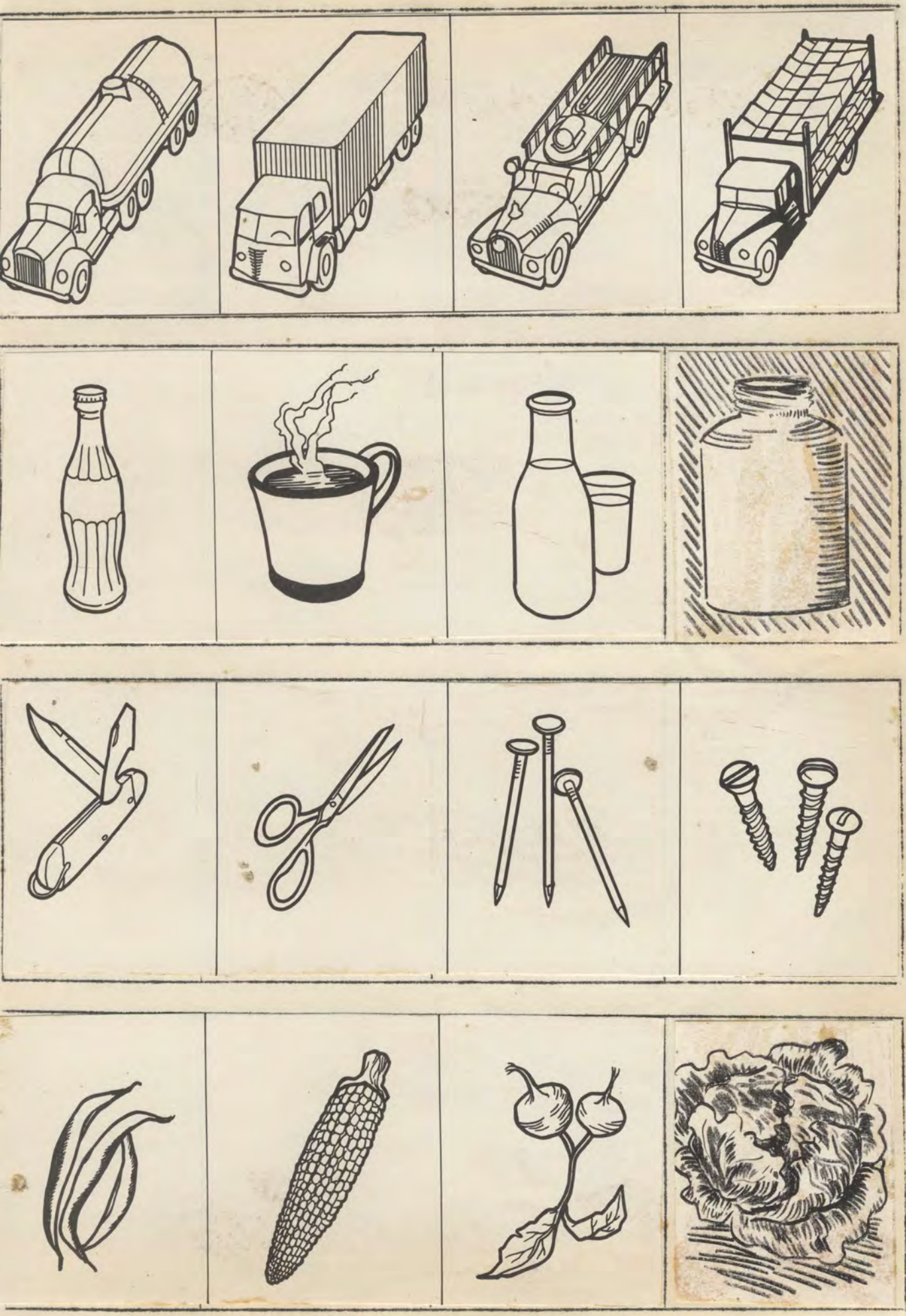



June
Dear Bill,
How are you today? I hope you feel much better now.
Sammy
Bill Brown
106 Alice St.
New City, N.Y.




OPEN 1 P.M.



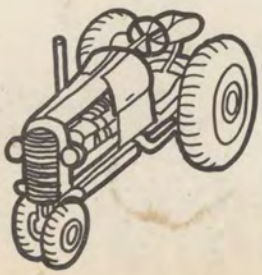
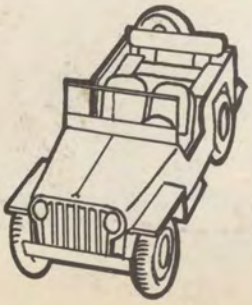


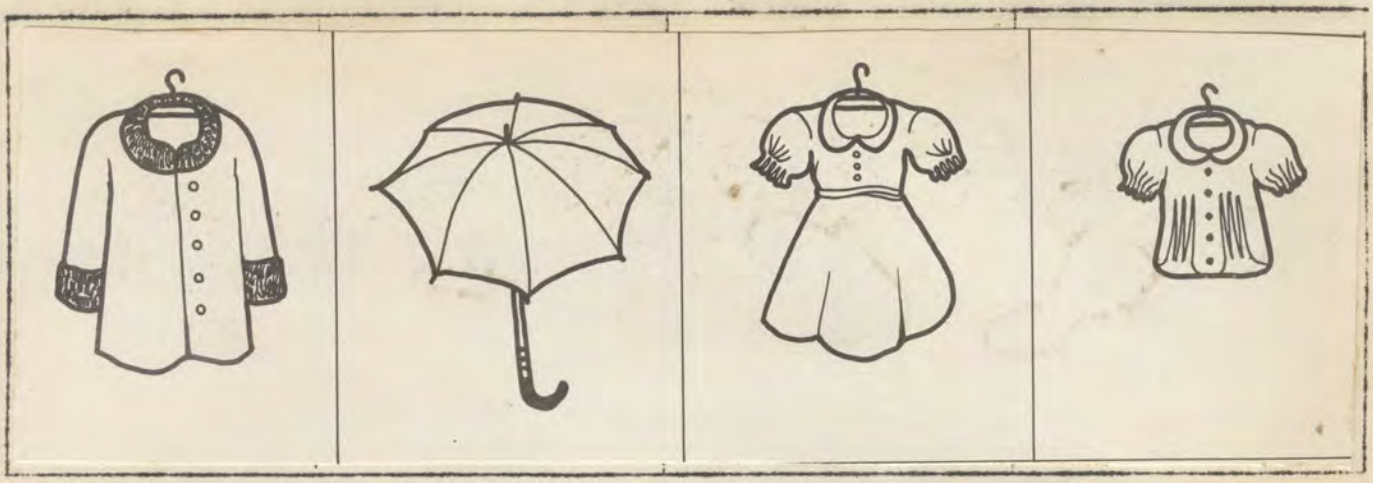


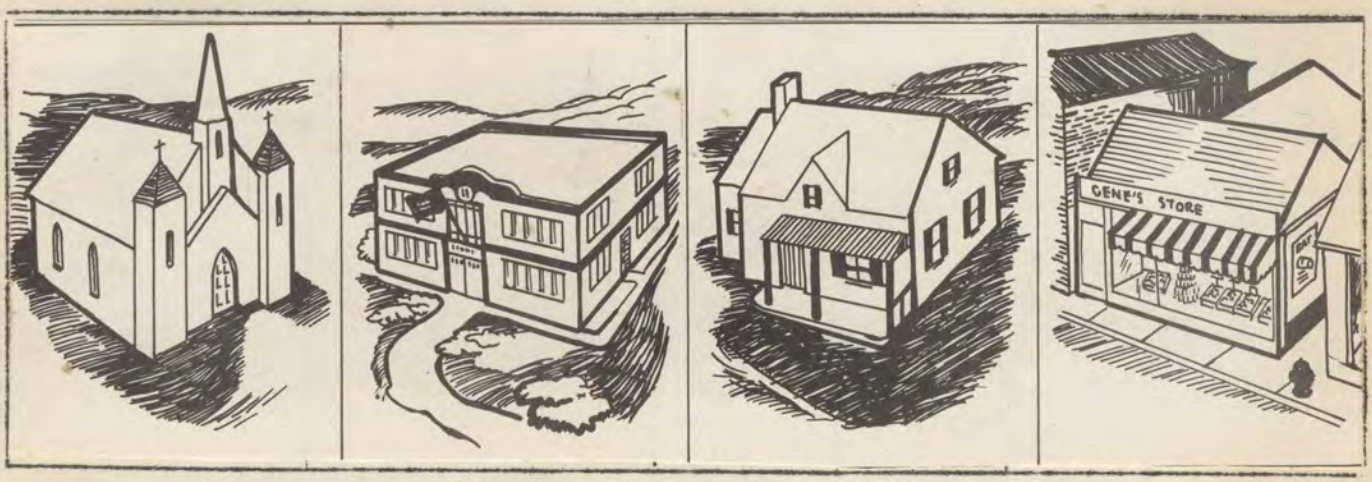









GENE'S STORE



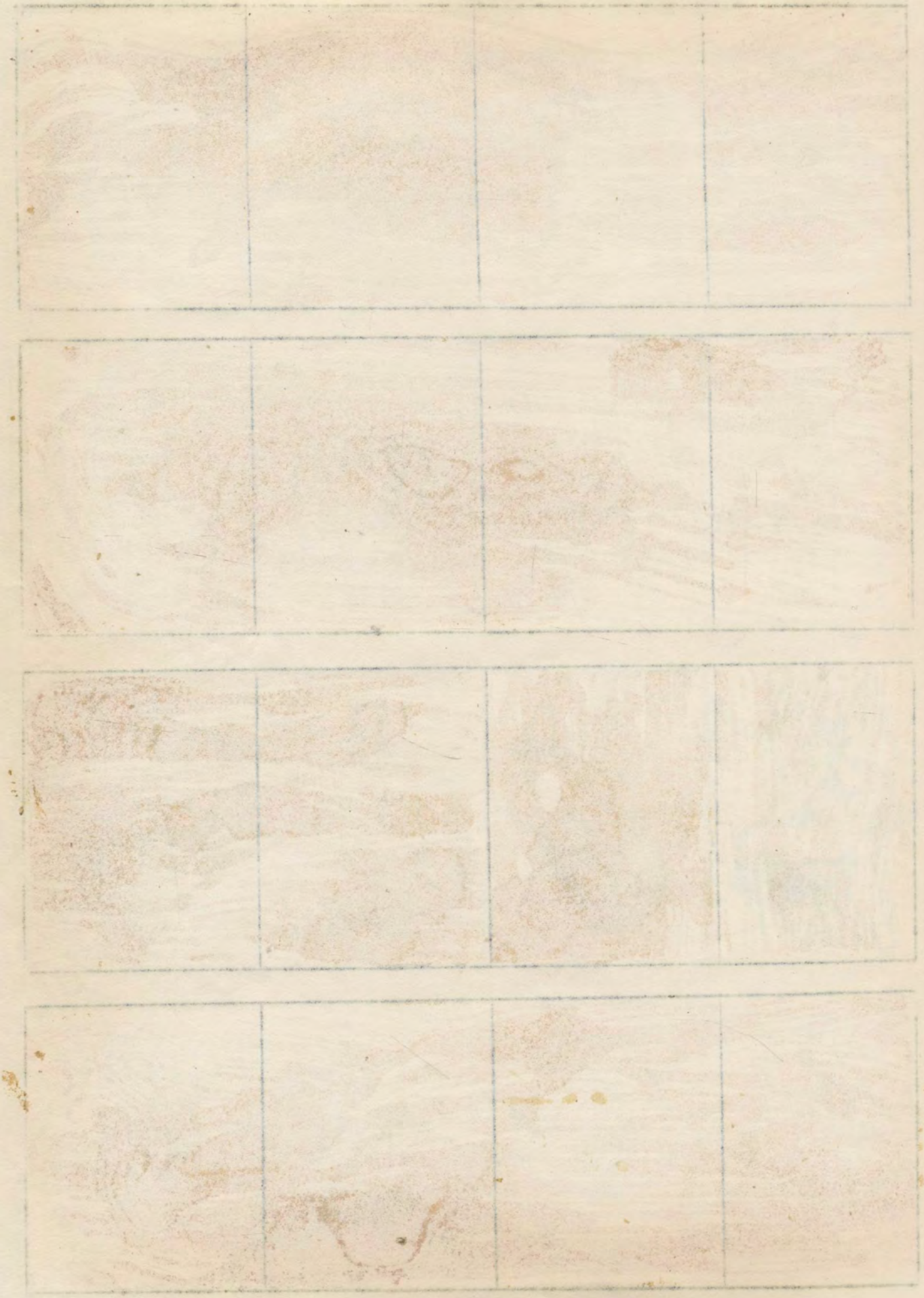






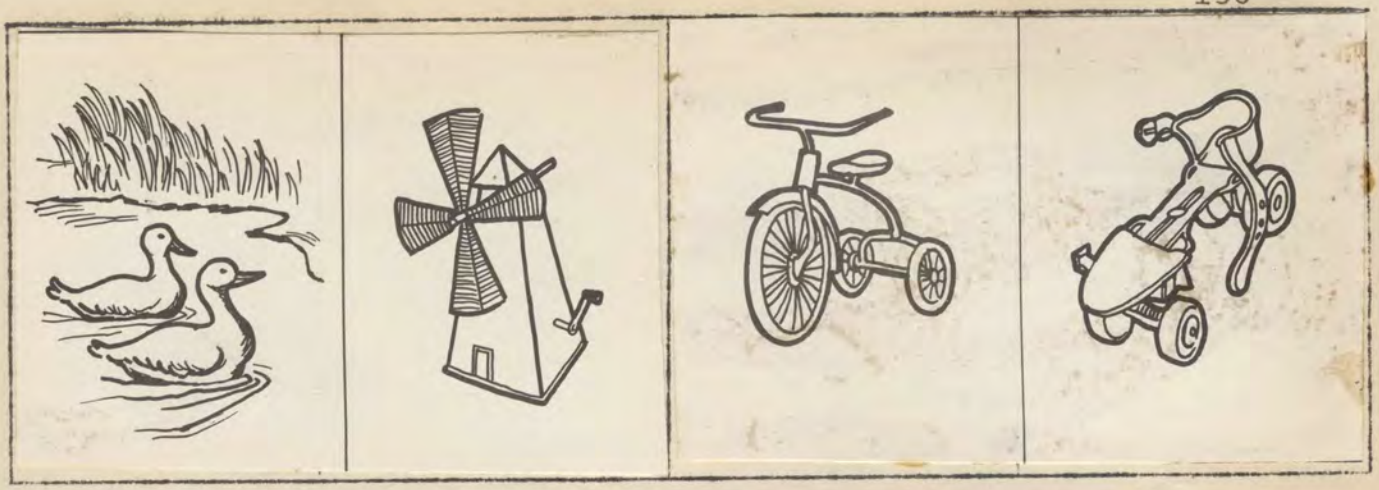


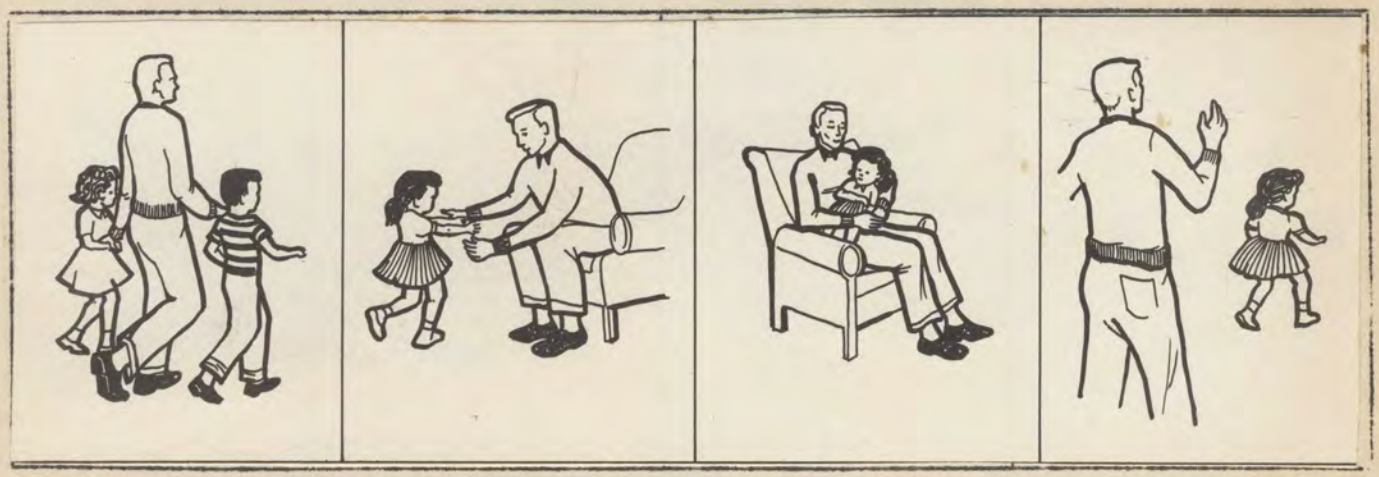




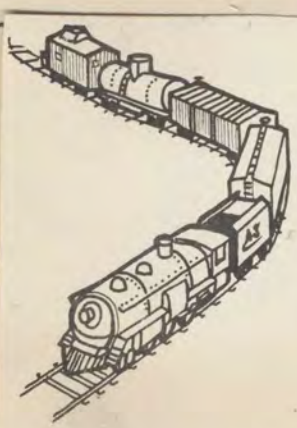

OPEN 1 P.M.

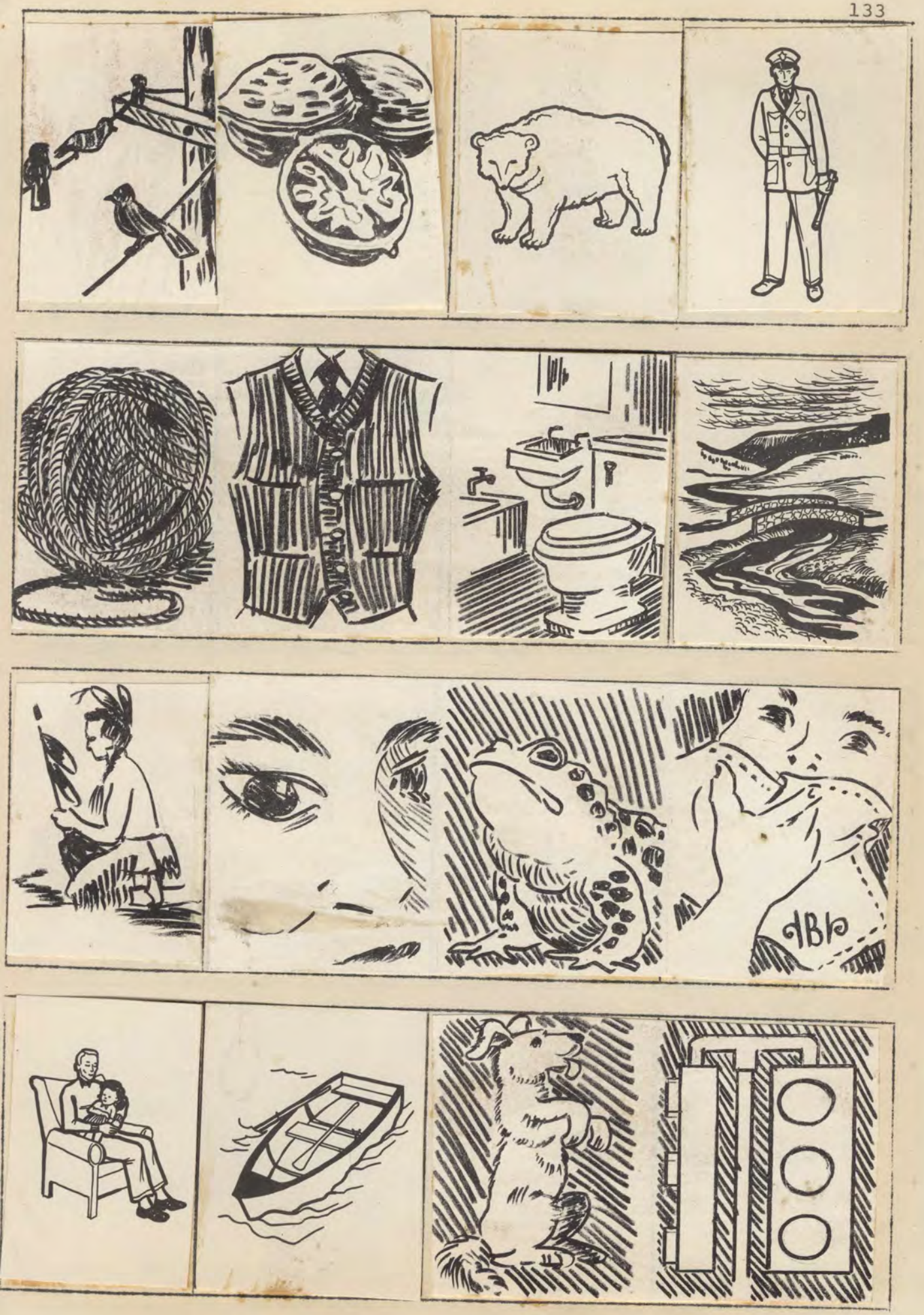

GENE'S STORE
BUS STOP

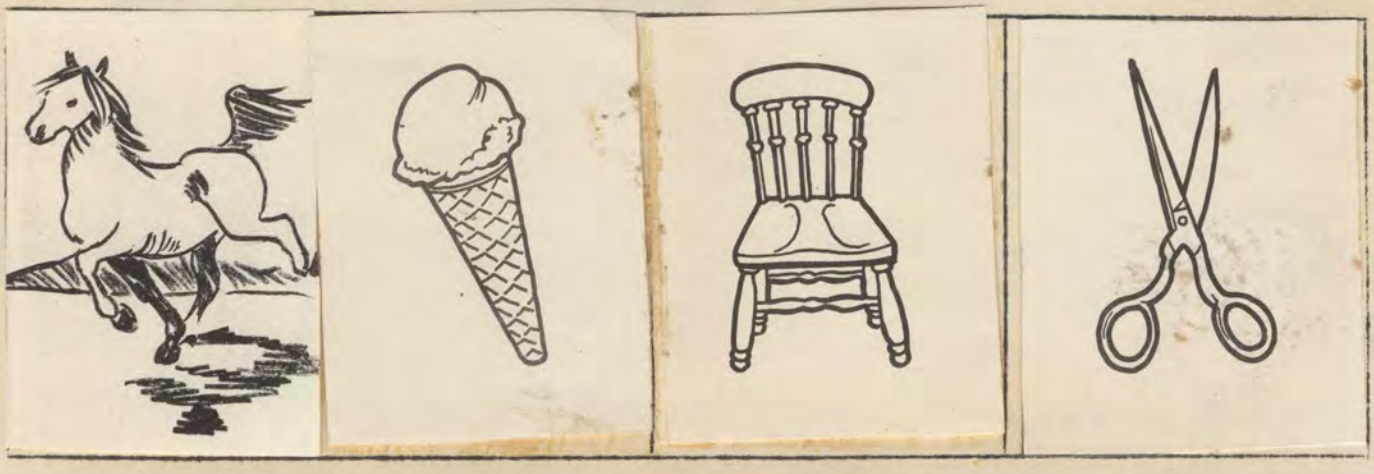





D 7
C 8
5 B
O A 9







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IV. COMPREHENSION QUESTIONS

1. Why do we have books?
2. Why do we have stoves?
3. How old are you?
4. Where do we put the paper that is no good?
5. Tell me two things that you wear on your head?
6. What tells us what time it is?
7. Does a house have doors?
8. What color is the flag?
9. Is a baby cat a puppy? What is it?
10. What two things can you do with a pencil?
11. What things fly?
12. What animals have long ears?
13. What do we call a baby dog? cat? goat? hen? cow? sheep?
14. Where does the bird put her eggs?
15. What do you see in the sky in the day time?
16. When do you need an umbrella?
17. Can you write with scissors? What can you do with them?
18. How many days do you come to school in a week?
19. What are all the things that you can do with a ball?
20. What does a car have to have to make it go?

IMPORTANT!

Special care should be taken to prevent loss or damage of this volume. If lost or damaged, it must be paid for at the current rate of typing.