English language development is a major educational problem of children of migrant agricultural workers and of native Indians. A program is described which utilized Teaching Research Language Development materials so they could be taught by teacher aides. The materials, commonly known as "Language Games," were structured in order that the children participating could help to teach one another. By 16 weeks, based on an average of 15 minutes per day, 4 times per week, significant increases in learning performances were noted, and continued use of games is expected to result in even more effective increases in language expression. The process of choosing children and teacher aides to participate in the program is described. The intensive training program with aides working directly with children is reviewed. Methods of program evaluation are also discussed. Not available in hard copy due to marginal legibility of original document. 1 (SW)
Final Report

LANGUAGE GAMES IN THE
YAKIMA VALLEY

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Center for the Study of Migrant and Indian Education
Tonpenish, Washington
Objectives

1. To provide schools with a language program that would:
   (1) supplement their present instructional methods,
   (2) allow a child to view language as a pleasant activity,
   (3) allow a child to use language as a profitable tool to explore and control his environment; e.g. to satisfy his curiosity, make known his wants, to solve problems, and develop language-based conceptual hierarchies, and
   (4) allow a child to acquire a learning set and skills which will enable him to extend his language acquisition skills into his environment, outside of the specific learning situation.

2. To train/instructional teacher-aides in the use of the language program in order to further maximize their effectiveness in classroom instruction.

3. To provide introductory training for instructional teacher aides/teachers in a teaching strategy (gaming) that could be utilized in other subject areas.

4. To develop materials to meet specific objectives of the Center for the Study of Migrant and Indian Education; e.g. development of materials specifically for Migrant and Indian populations.
The Center for Study of Migrant and Indian Education, directed by Willson Maynard, in cooperation with the local school districts, identified language development as a major educational problem in the Yakima Valley. The English language development of children from the families of migrant agricultural workers, as well as the native Indian population, has often been noted as being several years below that of other children of comparable age in the same schools. Having limited or non-existent English language skills, in a school curriculum which did little to improve this lack, these children are at a marked disadvantage educationally and socially, and in many cases are additionally handicapped by having come from culturally deprived environments. These children who could profitably benefit from vocational and technical skills which the schools could offer, instead tend to drop out of school early and become part of a large unskilled labor force. Obviously, it has become of crucial importance to provide these students with curriculum materials to increase their language skills.

The local schools, however, have found that curriculum materials for teaching language skills to these children are very limited in quantity. The Center, therefore, instigated a project utilizing the materials which had been field tested on children with limited English language skills within the State of Oregon.

These materials developed by Teaching Research differed from many existing curriculum materials for language development in several significant ways. The previous survey of existing curriculum materials in language development in the Northwest, as well as materials in use and being developed in Mexico and in the Southwestern United States, showed such materials tended to rely heavily on teacher direction and teacher
intervention in the learning process. While such materials are undeniably effective, they do exact a heavy drain on a teacher's time and energy, even if he or she is fortunate enough to have a teacher aide.

Effective use of existing materials thus becomes a very taxing situation for the teacher who has in the same class, both children with normal language development performing at grade level, and children with a poor grasp of the English language in need of remedial education.

The Teaching Research Language Development materials, on the other hand, were specifically developed so they could be taught and supervised by teacher aides and were structured so that the children participating in the project would help to teach each other. In addition, the concepts, words, and illustrations were chosen on the basis of their relevancy to culturally deprived children. These materials are commonly known as the "Language Games". They are games in the sense that the children enjoy the process of working together toward common goals. The structure of a game-like situation is deliberately encouraged. The intent of the materials, however, is definitely educational. While the children are playing games and viewing the usage of the English language as a pleasant activity, they are also progressing through a carefully planned sequence of language learning.

The "Language Games" were initially to be introduced to instructional teacher aides January 20 at the Center for Study of Migrant and Indian Education, and January 21 at West Valley High School. It was assumed that communication had been established with administrative personnel, and that the aides would have a rudimentary understanding of the reasons for their
attendance. However, communication - if in existence - was poor. Consequently, one district sent clerical rather than instructional aides, another district had no aides in attendance, another sent only a representative sample, and high school rather than elementary aides attended from still another district. It was soon discovered that the 57 aides in attendance had little or no idea of the purpose for their presence and were unsure of what to do with the knowledge we tried to impart. By approaching the aides with an accomplished program before their teachers and administrators had an opportunity to view the program, we risked immediate failure. After consultation with Mrs. Diaz, a decision was made to cancel the subsequent training sessions scheduled for January 27 and 28, and take the program directly to the superintendents and federal coordinators.

During the two, one-day training sessions, our objective was to give the aides a basic understanding of the "Language Games" - their purpose, use, and underlying philosophy. This objective was accomplished through presentations, discussions, and active aide participation in a variety of activities designed to demonstrate the potential of gaming strategies and the "Language Games" in particular. Following each session, the aides were told that they had been participating in a new and innovative method of language instruction, and that their administrators and teachers would soon be contacted concerning possible classroom implementation.

With the conclusion of the sessions, two consultants from Teaching Research, Lynn McDonald and John Bond, began contacting superintendents
to explain the "Language Games", and ask for permission to speak with
appropriate principals and teachers. In all cases, auxiliary personnel
associated with language development, speech and hearing therapy, psychology,
etc., were also contacted to clarify any misconceptions that may have
developed from "teacher lounge conversations". The "Games" were either
explained privately to the principal, and permission asked to speak to the
teachers; or principal and teachers jointly met for an explanation and
demonstration of the "Games". In many instances, the games were demon-
strated by having the teachers utilize the gaming method in learning
nine new nouns of a foreign language. They thus experienced many of the
problems, the enjoyment, and the sense of accomplishment that a linguis-
tically-different-child faces while learning the English language. Follow-
ing the presentation, we asked,

"Which children in your classes might benefit by the use of
these games for their oral language development? If you
can diagnose even a few (3 or 4) who might benefit by their
use, please indicate this to us, and we will return with a
beginning set of games to demonstrate and instruct your
side in their proper use. Supervision will then continue
on a weekly basis for the remainder of the year."

In reaching a decision concerning student participation, some questions
arose that did not pertain directly to meeting student needs; program
cost being the most persistent. When informed that the "Language Games"
were a curriculum enrichment program provided by the Center for the Study
of Migrant and Indian Education, the administrators' greatest worry was
relieved. Questions concerning the experimental nature, both develop-
mentally and academically, were also raised. The teachers wanted to be
assured that their students were not being used for doctoral dissertation
information or for testing a new experimental program. Assurance was
given by the "Game" consultants by explaining that they were professional
researchers with a planned program for oral language development, and
not graduate students working to improve themselves at the expense of
the children. Class time, needed facilities, and aide ability to work
directly with the children was also questioned. The teachers were assured
of game flexibility in time, space utilization, and an on-going aide
training program.

Students chosen by teachers as having "language problems" were
predominantly pre-school and first grade Mexican-American children.
Other ethnic groups represented were Indian, Negro, and Anglo-Saxon
children. Students were chosen to participate for numerous reasons.
Most were selected because of a complete lack of English vocabulary,
while some were chosen to expand their limited knowledge of the English
language (to progress beyond simple noun recognition). A few were rec-
commended for participation because of their shyness or for peer group
socialization. Those children recommended because of lack of English
vocabulary developed rapidly in speaking simple English nouns, but they
were at first unable to apply their learning outside the gaming sit-
uation. As student-student and student-aide interactions developed,
the children's vocabulary and confidence in using and applying English
outside the game situation improved. Those students involved because of
unwillingness, rather than inability, to use English, were phased out
of the games as soon as growing confidence in their English usage became
apparent.
When the selection of students was completed, intensive training of the aides working directly with children was begun. Typically, an aide and four students were taken from the room and as the aide watched, the "games" were demonstrated with the selected four beginning students. Following the demonstration, the aide played the "matrix game" with the children, which was followed by a discussion of points of concern about the game usage.

Every effort was made to stress the idea of the "games" being child-centered, rather than teacher-centered. We were careful to define the role of the adult as a monitor of the language used in playing the game. We demonstrated and discussed a method of encouraging correct language patterns, which would not disrupt the enjoyment the children found in the game. The aides were shown how the game allowed much repetition of vocabulary words and language patterns, so they would not become upset when a child did not verbalize, or make linguistical errors. The aide was taught, by watching and by actual rehearsal, to quietly call for, or provide, the correct language required for that portion of the game and to go quickly on to the next turn. She thus learned some effective non-punitive techniques for facilitating the children's language acquisition.

These two attitudes were a pervasive theme we returned to throughout the remainder of the year. We felt they were important for maximum benefit of the games to the children because a teacher-directed activity tends to become a lesson with teacher or adult standards imposed on the children's game and on language performances. We felt that the children would not enjoy the "game" under adult imposed standards and therefore
not use the language naturally and spontaneously.

These two attitudes were accepted most readily by the people with least training and experience working with children in the school setting. Although we worked with many aides ranging in age from 11 years (5th and 6th grades), to approximately 45 years, the young adult, Mexican-American aides were by far the most productive because of their receptiveness, their energy in teaching the task, and their obvious pleasure in working with the children (60% to 65% of the aides were of this category). Many of the other aides did good jobs, but somehow lacked the pleasure given to or received from the job. These remaining aides were usually older and more experienced in their jobs and resisted the effort to take adults out of the traditional and adult-satisfying role of authority and dominance in learning activities. As time, training, and follow-up activities progressed, the majority of the aides accepted the games as a child-centered activity. In some instances, the aides even found themselves involved in the games as active participants.

Some teachers, although committing themselves to the program, began to compare their usual teaching techniques and role of their aide to the successes achieved with the games and the new role of the aides. Some teachers questioned the merit of teaching oral language, the game approach to learning, and the idea of a truly child-centered learning activity. These problems were resolved in some instances; in others the teacher and aides became "too busy" with other classroom activities to use the games. Teacher decisions concerning further classroom implementation were accepted, since the "games" usage had been left to their discretion.

Contacts with involved teachers were continued in order to check with them about progress, comments, or problems, but the aides were always
seen and spoken with at the greatest length. The aides and their concerns were our primary reason for visiting the schools. At first, appointments were made for aide visitations, but a practice of checking ahead regarding an approximate visit time, and even of just dropping by, soon evolved. This informal and flexible method of aide supervision was superior since it allowed us to fit more smoothly and unobtrusively into the activities of the school and the aides. It was a method that was in keeping with our role in the schools, and gave school personnel a comfortable degree of control over us and our visits. We responded as flexibly as possible to the schedules and requests of the aides. The method worked wherever we had a reasonable amount of time in which to visit the aides at their own schools, individually or in small groups. It gave us a personal acquaintance with the aides and an atmosphere of frankness and confidence in which to discuss their problems and ideas.

Much time was spent showing the flexibility of the materials and encouraging creative uses of the games in our weekly visits. Our first visits and demonstrations to the aides were limited to two or three of the basic "matrix games" and the first six to eight of the picture matrices. At subsequent visits at approximately weekly intervals, additional matrices in packets of eight to ten and additional games to be played with the matrices and cards were distributed. During the last month of our visits, we began to distribute and demonstrate the "board games".

Each of the basic "games" were introduced as a point of departure from which the aides were to adapt the "game" rules to fit the needs of the children. Aides were told that the "games" were theirs, that
they were to use them in the best ways they could, and that the game consultants could only give them ideas and encourage them to make changes when necessary to meet individual needs.

Most of the aides became very comfortable with the "game" materials, not only because of the consultants' efforts, but also because they were the only ones in the school who were competent in the use of the games. The aides became experts in what appeared to their teachers and administrators as an exciting and successful learning tool. In addition, it must be remembered that these successes were being achieved with children identified by the staff as having obvious learning problems in the language area. The aides thus had a useful, effective, interesting, and prestigious educational function for which they were recognized as highly competent. This activity contrasted with many of the duties some aides had previously been performing, such as routine clerical duties or playground supervision, but only relatively limited work with children in the classroom.

Ideas for changing the "game" rules to make the "game" more playable and exciting to different types of children were explored with the aides, and their assistance and creativity enlisted to adapt the "games" to individual needs of the children. Their ideas for the games were often highly innovative and successful. In some instances, an entire class played "games", with the teacher and aide rotating from group to group. Some aides tried having entire groups competing against other groups rather than playing the game on an individual basis, while still others added or subtracted novel stimuli to the games to alter the pace, difficulty, or the type of verbalization required.

Although specifically trained in usage of the "games" for oral
language development, some sides and teachers adapted the gaming strategy to other areas of study such as reading, math, phonics, and spelling.
The effectiveness of the Language Games Program was evaluated by several measures. A representative sample of the teacher and teacher-aides involved in the program participated in structured interviews concerning their own personal assessment of the program. These interviews were then recorded and analyzed.

The children's vocabulary development was assessed on the basis of a language development test developed, specifically for this study. In addition, spontaneous language of the children in a "free play" situation was recorded and analyzed in order to assess carry-over skills outside the actual learning game situation.

One of the evaluative measures was the use of interviews. A representative sample of aides and teachers who had been responsible for having the games in their schools were interviewed by Teaching Research staff. The five structured questions asked of each person were:

1. What do you see as the children's attitude towards the games?
2. How do you feel about the games?
3. How do you feel about the general effectiveness of the games as a teaching device?
4. What, if any, transfer of new language outside the game situation to the classroom did you notice?
5. Do you feel the games could be improved, and if so, how?

Responses to these questions were recorded and rated by two outside observers on a scale from very positive to very negative. Of the one-hundred responses from twenty-one teachers, the two raters agreed completely on eighty-six out of one-hundred ratings. The remaining fourteen ratings were averaged and scores recorded for all interviews. The first four questions yielded no negative comments.
On question one, which was to assess the teacher's perception of the children's attitude toward the games, teachers and aides gave an overall rating between positive and highly positive. On question two, that is, the attitude of the teacher herself toward the games, the rating was again positive or highly positive. The general educational results of the games was also rated between positive and highly positive. Question four, concerning transfer of learning observations, rated equally high. Teachers indicated that children now used more and better language in the classrooms and on the playgrounds as a result of having participated in the games. The materials themselves, especially the pictures, received both favorable and unfavorable comments. When an unfavorable comment was made, it seemed to be directed specifically toward the drawings, the pictures with which the children identified. For this reason, materials have been redrawn and redesigned by a professional artist.

In addition to teacher, teacher-aide interviews, an "Expressive Language" Test designed by Teaching Research was administered to the same children before the program began and at its completion. One section of the test measured expressive language by requiring identification of objects with multiple attributes. The second section required verbalization by the child concerning specifically selected pictures. The number of words and sentences used were then tabulated.

By pre-test and post-test comparisons we find significant gains in both the "Expressive Language" Test and in picture responses. Gains are found both in the number of words and the number of sentences used.

It is interesting to examine the results more closely. If the children who receive the language games are placed into sub-groups based on the number of weeks of exposure to the games, the gains in performance are accounted for almost entirely by the groups that used the games "3" to "5" times per week, for "16" weeks.
### EXPRESSIVE LANGUAGE IN A STRUCTURED SITUATION

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<td>Participation Comparisons</td>
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| 10 Weeks                  |          |          |          |                          |
| Expressive Vocabulary     | 61       | 67       |          |                          |
| Words                     | 45       | 46       |          |                          |
| Sentences                 | 3        | 5        |          | ![statistical significance](#) |
Sixteen weeks was the maximum time any of the children were exposed to the language games. Such children showed significant gains in both expressive language and the use of words in sentences in response to story pictures.

Children who have been exposed to the games for short times did not show significant increases. However, with children who received eight to ten weeks of the "language games" training we found sentences to be the first measure of significant increase. Thus the games appeared to fulfill one of their major objectives: the use of language in effective sentence communication.

A third measure of evaluation was designed to measure "carry-over" of language skills in unstructured situations. Four high interest jigsaw puzzles were presented to several groups of four children. The pieces of the puzzle were mixed so each child obviously had portions of other children's puzzles. The children were then left to put the puzzle together. Recordings of the linguistic interchange of these representative children, both from the experimental and the control groups were recorded.

The recordings were assessed by two outside raters as to: 1) the number of English words used in the selected time samples and, 2) the number of social interactions using the English language. Results concerning the English in this new unsupervised situation were quite dramatic. One rater who listened to all the recordings observed:

"It seems like the children in the control group must have mostly grabbed the puzzles from each other and made noises when trying to force the pieces of the puzzles together, while the experimental groups chattered like English magpies."

The inspection of the results bear out this colorful observation.

In the control group recordings, an average of 88 English words were spoken. In the experimental group recordings, an average of 135 English words were utilized. In addition, the children who had participated in the language games exhibited 37 verbal interactions, as compared to the 22 of the control
EXPRESSIVE LANGUAGE IN AN UNSTRUCTURED SITUATION

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<tr>
<th></th>
<th>Group I (no game)</th>
<th>Group II (games)</th>
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<tr>
<td>Number of Words</td>
<td>88</td>
<td>135</td>
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<tr>
<td>Number of Social Interactions</td>
<td>22</td>
<td>.37</td>
</tr>
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</table>

Group I: Non-participants in language games
Group II: Participants in language games
Many people take justifiable pleasure from participating in the "Language Game" Project. Aides and teachers who used the games considered them a pleasant and profitable learning experience for the children. Skill in English language expression increased and the transfer effect was unexpectedly high. They did find some need for alteration in the game material itself. The use of the aides to administer these games has appeared to be a very effective employment of the aides in a proper role. We found that the teacher aides could be rapidly trained in small groups to use these materials. The children's performance indicated that about 16 weeks is a minimal length of time to expect gains. Gains begin to appear at about 10 weeks. By 16 weeks, based on an average of 15 minutes a day, 4 times a week, significant increases in learning performances were manifested. We would expect a continued use of the games would result in even more effective increases in language expression.