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ABSTRACT

A 1971-72 study compared the effects of a Kindergarten Diagnostic Prereading Program with the effects of traditional kindergarten on children's predicted reading levels. A follow-up study of the first grade reading achievement of the children from both kindergarten programs was recently completed. The purpose of the follow-up study was to answer the following questions: (1) Will the Kidi-Prep classes have a higher proportion of adequate readers (Grade Level 1.6) at the end of the first grade than the traditional kindergarten classes? and (2) Will the Kidi-Prep Predicted Reading Level-Failure group have a higher proportion of adequate readers at the end of first grade than the traditional kindergarten PRL-F group? The data analyses showed no statistically significant difference between the first grade reading achievement of the children who had had Kidi-Prep in kindergarten and those who had had traditional kindergarten. It appears that both the Kidi-Prep and the traditional kindergarten adequately prepared children for the first grade reading program. (Author/CS)

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# First Grade Follow-up of Kidi-Prep

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## FIRST GRADE FOLLOW-UP OF KIDI-PREP

A 1971-72 study compared the effects of a Kindergarten Diagnostic Prereading Program with the effects of traditional kindergarten on children's predicted reading levels (Stank, 1973). A follow-up study of the first grade reading achievement of the children from both kindergarten programs was recently completed.

The purpose of the follow-up study was to answer the following questions:

1. Will the Kidi-Prep classes have a higher proportion of adequate readers (Grade Level 1.6) at the end of first grade than the traditional kindergarten classes?
2. Will the Kidi-Prep Predicted Reading Level-Failure group have a higher proportion of adequate readers at the end of first grade than the traditional kindergarten PRL-F group?

### Background

The 1971-72 study used a design with experimental and control groups to assess the effectiveness of the Kidi-Prep curriculum. Kidi-Prep differed from the traditional kindergarten in that one hour of each daily kindergarten session was used for structured, small group instruction in specific cognitive skills and conceptual competencies.

The data analyses at the end of the 1971-72 school term showed the Kidi-Prep curriculum to be superior to the traditional kindergarten curriculum in raising the predicted reading levels of both the total group of children and the Predicted Reading Level-Failure subgroup.

To evaluate the stability of the effects of Kidi-Prep, a follow-up study of the children in both groups was completed in May 1973.

### Sample

The 1971-72 study had 196 children in the sample. One hundred thirty-two of the children were located for inclusion in the follow-up study. The children were scattered throughout 15 first grade classes in 12 schools. Eight of the schools were public schools in the Altoona Area School District, and four were parochial schools in the Altoona-Johnstown diocese. The public and parochial school administrators helped to locate the children and to arrange the testing schedule.

### Testing

The testing was done in the schools by personnel from the Division of Research, Pennsylvania Department of Education, on May 9 and May 10, 1973. The size of the groups tested ranged from 3 to 19 students.

The test used was the 1965 edition of the Gates-MacGinitie Reading Tests, Primary A, Form 1. This test provides end of first grade reading achievement levels in vocabulary and in comprehension.

The Vocabulary Test samples the child's ability to recognize or analyze isolated words. It consists of 48 exercises, each of which contains four printed words and a picture illustrating the meaning of one of the words. The child's task is to circle the word that best corresponds to the picture. The first exercises are composed of easy and commonly used words, grouped with words selected to be only slightly similar or confusing. Gradually the words become less easy and common and are presented with words more similar in details and general appearance.

The Comprehension Test measures the child's ability to read and understand whole sentences and paragraphs. This ability includes many skills not involved in the mere ability to recognize words. The child must grasp the total thought clearly if he is to answer correctly. The test contains 34 passages of increasing length and difficulty. (Gates-MacGinitie, 1965)

### Results

The data from the end of first grade testing were analyzed using tests of differences in proportion.

Table 1

Tests of the Difference in Proportion of Total Groups Achieving at Grade Level 1.6 and Above<sup>1</sup> on the Gates-MacGinitie Reading Tests at the End of First Grade

	Vocabulary				Comprehension			
	Total N	G.L. 1.6 n	p	Difference in Proportion	Total N	G.L. 1.6 n	p	Difference in Proportion
Kidi-Prep	63	56	88.8	3.3	63	56	88.8	9.1*
Traditional	69	59	85.5		69	55	79.7	

\*Significant at .10 level

<sup>1</sup>A lag of three months is accepted as adequate reading achievement in the primary grades. A G.L. of 1.6 in May is only two months below the G.L. 1.8 associated with May of first grade.

The data in Table 1 show that the proportion of the total group of children that are achieving adequately in first grade reading is higher in the group that had Kidi-Prep than in the group that had traditional kindergarten. However, only in the reading comprehension was the difference between these proportions large enough to be of practical consideration. The significance level for this difference indicates that the Kidi-Prep curriculum did influence the first grade reading comprehension level of the total group of children.

Table 2

Tests of the Differences in Proportion of PRL-F Groups Achieving at Grade Level 1.6 and Above on the Gates-MacGinitie Reading Tests at the End of First Grade

	Vocabulary				Comprehension			
	Total N	G.L. 1.6 n	p	Difference in Proportion	Total N	G.L. 1.6 n	p	Difference in Proportion
Kidi-Prep	45	38	.844	.40	45	39	.866	.127*
Traditional	46	37	.804		46	34	.739	

\*Significant at the .10 level

When the data in Table 2 are considered, it is evident that the proportion of the Predicted Reading Level-Failure children who are achieving adequately in first grade reading is higher in the group that had Kidi-Prep in kindergarten than in the group that did not. The difference in proportion between the two groups was greater in the reading comprehension test than in the vocabulary test.

The tests of differences in proportion were computed on grade level data. Additional analyses were completed using standard scores on the Gates-MacGinitie Reading Tests. The results of these analyses are given in Table 3 and Table 4.

Table 3

t Test of the Difference Between the Gates-MacGinitie Reading Test Means for the Total Groups at the End of First Grade

	Vocabulary				Comprehension			
	N	Mean	S.D.	t	N	Mean	S.D.	t
Kidi-Prep	63	52.58	9.08	1.260 N.S.	63	51.79	9.50	.7014 N.S.
Traditional	69	50.50	9.68		69	50.62	9.50	

The data in Table 3 show that there were no statistically significant differences between the total Kidi-Prep and traditional kindergarten classes in reading achievement at the end of first grade. However, it should be noted that in both vocabulary and reading comprehension the Kidi-Prep group has a higher mean than the traditional kindergarten group.

Table 4

t Test of the Difference Between the Gates-MacGinitie Reading Test Means for the PRL-F Groups at the End of First Grade

	Vocabulary				Comprehension			
	N	Mean	S.D.	t	N	Mean	S.D.	t
Kidi-Prep	45	49.89	7.90	.6785 N.S.	45	49.20	8.81	.5202 N.S.
Traditional	46	48.60	9.90		46	48.21	9.31	

An inspection of Table 4 reveals no statistically significant differences between the PRL-F children in the two groups in reading scores at the end of first grade. There is a small difference between the means of the PRL-F children in the two groups on both the vocabulary test and the comprehension test. This difference does favor the PRL-F children who had Kidi-Prep in kindergarten.

### Discussion

The data analyses showed no statistically significant difference between the first grade reading achievement of the children who had had Kidi-Prep in kindergarten and those who had had traditional kindergarten. This nonsignificance was true when observing the research convention of .05 level of significance. For practical consideration by educators, there were small real differences favoring the Kidi-Prep children in all of the analyses. The fact that the differences were not large enough to reach significance may be attributed to teacher effect since the children were scattered among 12 schools and 15 teachers and there was no way to control for the school and teacher variables.

It appears that both Kidi-Prep and traditional kindergarten adequately prepare children for the first grade reading program. All of the first grade teachers' comments to the testing personnel indicated that this was the best first grade they have had. It is possible that the involvement of the kindergarten teachers in the 1971-72 project had a halo effect that is currently reflected in the small differences between the Kidi-Prep children and the

children who had traditional kindergarten. The possibility of such a halo effect upon the traditional kindergarten children is supported by the end of first grade median reading level of 2.3 that was found for both groups. A typical end of second grade mean reading level for children from this attendance area was 2.6. It appears that the total 1971-72 study and the involvement of the Division of Research personnel with teachers during that school term did favorably affect the reading achievement of the children who participated in the study.

There were greater differences between the total groups and between the PRL-F groups in reading comprehension than in vocabulary. This implies that Kidi-Prep was more effective than the regular kindergarten in developing the cognitive skills necessary to read and to understand whole sentences and paragraphs and to make the associations necessary to grasp a whole thought.

### Recommendations

The Kidi-Prep program was planned to prevent reading failure at the end of second grade. Although first grade differences were not significant, the differences between the two groups may be greater at the end of second grade. De Hirsch (1966) found that many children who are nonreaders in first grade do achieve adequately in reading by the end of second grade. It is recommended that these children be tested at the end of second grade to assess the longitudinal effects of Kidi-Prep.

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