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ABSTRACT

Children in Columbus, Ohio public schools participated in two nontraditional kindergarten programs during the 1986-1987 school year. Evaluations of the programs were undertaken to determine their success. One program involved a full day kindergarten that featured opportunities for increased personal and social development, as well as instruction in art, music, physical education, and other curriculum areas. The second program involved interactive experiences with microcomputers and the Writing to Read (WTR) program which were intended to develop reading and writing skills. For evaluation purposes, children were divided into four groups: a control half-day kindergarten group, a full-day group, a half-day WTR group, and a group participating in WTR on a full day basis. Language and reading achievement were determined by pretest and posttest scores on the Metropolitan Achievement Test, and social adjustment was evaluated on the basis of teacher-assigned grades. Evaluation findings indicated higher achievement for students in the full-day kindergarten and WTR programs, and better adjustment to school in the WTR classrooms. Students in the half-day kindergartens showed better adjustment skills associated with personal and social growth than did students in the full-day kindergartens. Appendixes include a writing sample prompt, a list of criteria for rating writing samples, and a sample progress report form. (SKC)

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WRITING TO READ AND
FULL DAY KINDERGARTEN EVALUATION

November 1987



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Abstract

Approximately 500 Columbus kindergarten students participated during the 1986-1987 school year in programs that represent a change from the traditional half day kindergarten (HDK) . One program extended half day sessions to full day classes for kindergarten students. The purpose of the full day kindergarten (FDK) was to provide opportunity for adjustment to the schedule of activities experienced during the school day by most elementary aged children. Other intents of full day class sessions were to increase opportunities for personal social development and for instruction in all curriculum areas, but especially in art, music and physical education.

A second program provided for interactive experiences with IBM personal computers centered on beginning reading and writing skills. This program known as Writing to Read (WTR) was intended to stimulate and motivate student learning in a technologically updated environment.

The combination of FDK, HDK, and WTR resulted in four distinct treatments; FDK with WTR, HDK with WTR and FDK and HDK with regular instruction (REG). The evaluation considered all four treatment groups.

Evaluation activities were planned to answer eight questions regarding achievement in reading, language, writing, and social adjustment of students in FDK and WTR classrooms. Question 1.1: Do students in WTR classrooms show more growth in reading than students in other classes? Question 1.2: Do students in WTR classrooms show more growth in language than students in other classes? Question 1.3: Do students in WTR classrooms score higher on a measure of written product than students in other classes? Question 1.4: Do students in WTR classrooms exhibit different patterns of grades and social development as reported on grade cards? Question 2.1: Do students in FDK classrooms show more growth in reading than students in other classes? Question 2.2: Do students in FDK classrooms show more growth in language than students in other classes? 2.3: Do students in FDK classrooms score higher on a measure of written product than students in other classes? Question 2.4: Do students in FDK classrooms exhibit different patterns of grades and social adjustment as reported on grade cards?

Evaluation outcomes were reported for the two program groups FDK and WTR and for two control groups of students in half day classes and in classes with regular instruction (without WTR). Outcomes were reported, also, for students in treatment groups resulting from combinations of FDK, HDK, and WTR: FDKWTR, HDKWTR, FDKREG and HDKREG.

Achievement in reading and language was determined by pre-post scores on the Metropolitan Achievement Test (MAT6). Final grades on the Kindergarten Progress Report provided further information about achievement in reading and language. A locally developed measure of written product was used to determine student achievement in writing.

Social adjustment to school was based on grades given by teachers in two general areas, work habits and personal/social growth, and in eight specific skills that defined these areas on the Progress Report.

Findings from the evaluation indicate higher achievement for students in the FDK and WTR programs than students in traditional half day kindergartens. Standardized test scores and grades from teachers showed greater achievement in reading, language, and writing for students in FDK and WTR classrooms. Students in classrooms where FDK and WTR programs operated in combination showed the greatest achievement of all the treatment groups in reading, language, and writing. Mathematics achievement resulted as a serendipity effect of the WTR program. Students with WTR instruction whether they attended full day or half day kindergartens showed the greatest achievement in mathematics.

Evaluation findings suggest better adjustment to school for students in WTR classrooms than for students in regular classes. This was especially true in the skills associated with work habits for kindergarten. Students in HDK classes showed better adjustment in skills associated with personal/social growth than students in FDK classrooms. The overall best adjustment to school was shown by students in traditional half day kindergartens.

Recommendations based on the major findings were: 1) Continue Full Day Kindergarten and Writing to Read as appropriate and effective programs for students in Columbus Schools, 2) Expand the FDK and WTR programs to operate in combination based on the greater achievement gains of students in the combined FDKWTR treatment group, 3) Evaluate the programs further to determine the effects of more instructional time and computer aided instruction on teacher attitudes and expectations for kindergarten students, 4) Review program goals for Full Day Kindergarten to provide more specific guidelines for teachers and for evaluation.

WRITING TO READ AND
FULL DAY KINDERGARTEN EVALUATION

November, 1987

Introduction

During the 1986-1987 school year two programs of an experimental nature were in operation in several Columbus kindergartens. A full day kindergarten (FDK) program beginning in September 1986 extended the traditional half day class sessions for kindergarten aged children to full day sessions. Students at four elementary schools went to class from 9:00 A.M. to 3:30 P.M. The FDK program provided opportunity for kindergarten classes to participate as other classes in the school-wide schedule of activities and special events.

In the second semester starting in February 1987, a writing to read software system (WTR) designed by IBM was piloted in one full day and three half day kindergartens. Students enrolled in WTR classes and their teachers spent one hour a day in a school center equipped with IBM personal computers and other educational materials. During the time in the computer center student groups rotated among five interactive learning stations organized to develop reading and writing skills.

Generally the full day and writing to read programs provided a context in which learning opportunities could be increased or enhanced for Columbus kindergarten students. Outcomes expected from the programs were compatible with those outlined for kindergarten curriculum in the Columbus Course of Study. Objectives based on more time in school for the full day kindergartens were stated as follows:

- o to provide enrichment across the kindergarten curriculum but particularly in the areas of art, music, physical education and field trips
- o to provide greater stability for the students who might otherwise have to attend kindergarten as well as a day care or other babysitting facility
- o to increase social development by fostering greater personal interactions among the students with their classmates and with the teacher
- o to ease students' introduction to school by providing opportunities to be integrated in school-wide routines and activities such as recess, lunch and school programs

Objectives of WTR:

- o to help students build reading and writing skills
- o to stimulate imagination
- o to encourage a basic desire to learn
- o to help students build self-confidence

Evaluation Plan

An evaluation plan to determine the appropriateness and effectiveness of the WTR program serendipitously provided for information about the FDK program. A design to cover an evaluation of both programs was planned by staff of the Department of Evaluation Services in cooperation with staff of the Division of Elementary Services. The design provided for the collection of data to address eight evaluation questions. The questions were based on information needs in Columbus and on evaluations of WTR in other urban settings.

Evaluation Questions

The evaluation questions relating to WTR were:

- 1.1 Do students in WTR classrooms show more growth in reading than students in other classes?
- 1.2 Do students in WTR classrooms show more growth in language than students in other classes?
- 1.3 Do students in WTR classrooms score higher on a measure of written product than students in other classes?
- 1.4 Do students in WTR exhibit different patterns of grades and social adjustment as reported on grade cards?

Evaluation questions relating to FDK were:

- 2.1 Do students in FDK classrooms show more growth in reading than students in other classes?
- 2.2 Do students in FDK classrooms show more growth in language than students in other classes?
- 2.3 Do students in FDK classes score higher on a measure of written product than students in other classes?
- 2.4 Do students in FDK exhibit different patterns of grades and social adjustment as reported on grade cards?

The evaluation design for FDK and WTR is depicted graphically in Figure 1. Participating schools are named in the appropriate cells. The data collected on students in each cell of the design are specified in Table 1.

	Writing to Read (WTR)	Regular Instruction (REG)
Full Day Kindergarten (FDK)	Salem	Clarfield Hamilton Westgate
Half Day Kindergarten (HDK)	Kent N. Linden Reeb	Leawood Weinland Pk.

Figure 1

Graphic Representation of Evaluation
Design for WTR and FDK

Table 1

Data collected in the
Evaluation of WTR and FDK

Instrument	Dates of Administration
Metropolitan Achievement Tests Pretest Preprimer Form L Posttest Primer Form L	February 23-March 4, 1987 May 18-27, 1987
Writing sample	May 14-15, 1987
Kindergarten grade cards	June 5, 1987
Parent survey	June 18, 1987

The instrumentation and analysis of data for each evaluation question are described below.

Question 1.1 Do students in WTR classrooms show more growth in reading than students in other classrooms?

Instrumentation: Appropriate levels and forms of the Reading Test from the Metropolitan Achievement Test (MAT6).

Sample: Kindergarten students in WTR and selected regular classes.

Administration: By kindergarten teachers in February and May 1987.

Analysis: Analysis of central tendency and distribution of NCE scores on the pretest and posttest of Total Reading on the MAT6.

Question 1.2 Do students in WTR classrooms show more growth in language than students in other classes?

Instrumentation: Appropriate levels and forms of the Language Test from the Metropolitan Achievement Test (MAT6).

Sample: Kindergarten students in WTR and selected regular classes.

Administration: By kindergarten teachers in February and May 1987.

Analysis: Analysis of central tendency and distribution of NCE scores on the pretest and posttest of Total Language on the MAT6.

Question 1.3 Do students in WTR classrooms score higher on a measured written product than students in other classes?

Instrumentation: Locally developed procedure to obtain samples of student writing.

Sample: Kindergarten students in WTR and selected regular classes.

Administration: By kindergarten teachers in May 1987.

Analysis: Analysis of central tendency and percents of students achieving the average rating or above the average rating of the total group.

Question 1.4 Do students in WTR exhibit different patterns of grades and social adjustment as reported on grade cards?

Instrumentation: Columbus Public Schools Kindergarten Student Progress Report

Sample: Kindergarten students in WTR and selected regular classes.

Administration: By kindergarten teachers in June 1987.

Analysis: Frequencies and percents of grades achieved by students in WTR and regular classes.

Question 2.1 Do students in FDK classes show more growth in reading than students in other classes?

Instrumentation: Appropriate levels and forms of the Reading Test from the MAT6.

Sample: Kindergarten students in FDK and selected half-day classes.

Administration: By kindergarten teachers in February and May 1987.

Analysis: Analysis of central tendency and distribution of NCE scores on the pretest and posttest of Total Reading on the MAT6.

Question 2.2 Do students in FDK classrooms show more growth in language than students in other classes?

Instrumentation: Appropriate levels and forms of the Language Test from the MAT6.

Sample: Kindergarten students in FDK and selected half-day classes.

Administration: By kindergarten teachers in February and May 1987.

Analysis: Analysis of central tendency and distribution of NCE scores on the pretest and posttest of Total Language on the MAT6.

18 Question 2.3 Do students in FDK classrooms score higher on a measure of written product than students in other classes?

Instrumentation: Locally developed procedure to obtain samples of student writing.

Sample: Kindergarten students in FDK and selected half-day classes.

Administration: By kindergarten teachers in May 1987.

Analysis: Analysis of central tendencies and percents of students in FDK and half day classes achieving the average rating or above the average rating of the total group.

Question 2.4 Do students in FDK exhibit different patterns of grades and social adjustment as reported on grade cards?

Instrumentation: Columbus Public Schools Kindergarten Student Progress Report

Sample: Kindergarten students in FDK and selected half-day classes.

Administration: By kindergarten teachers in June 1987.

Analysis: Frequencies and percents of grades achieved by students in FDK and selected half-day kindergarten classes.

Data Analysis

A total of 529 students were enrolled in the kindergarten classes used for the evaluation sample. The number of student participants in program groups and in each cell of the evaluation design is shown in Figure 2. Cell groups are identified for four distinct treatment groups as follows:

- FDKWTR - full day kindergarten program and WTR program operating in combination
- FDKREG - full day kindergarten program with regular instruction
- HDKWTR - half day kindergarten with WTR program in operation
- HDKREG - half day kindergarten program with regular instruction

	WTR	REG	
FDK	FDKWTR n = 46	FDKREG n = 183	n = 229
HDK	HDKWTR n = 206	HDKREG n = 94	n = 300
	n = 252	n = 227	N = 529

Figure 2

Enrollment of Evaluation Participants
by Kindergarten Program and Treatment

Evaluation data was collected and analyzed for four program groups: WTR classrooms, classes with regular instruction (that is without WTR), FDK classrooms, and HDK classes. Data was collected and analyzed, as well, for four cell or treatment groups of students in combined classes: FDKWTR, FDKREG, HDKWTR, and HDKREG. Data analysis relating to each evaluation question is reported below.

Question 1.1 Do students in WTR classrooms show more growth in reading than students in other classes?

Question 2.1 Do students in FDK classrooms show more growth in reading than students in other classes?

The Metropolitan Achievement Test (MAT6) provided information about student growth in reading. A pretest was administered to all students from February 23-27, 1987 just after the start of the WTR program. Posttesting took place 11 weeks later from May 18-22, 1987. Matched pre-post normal curve equivalent (NCE) scores were used as the measure of growth in reading. Averages and standard deviations of NCE pretest, posttest and difference scores are reported in Table 2 by program and cell groups. Average NCE difference scores for programs and each cell are displayed in Figure 3.

Table 2

Pretest and Posttest Normal Curve Equivalents
(NCE) by Program and Cell Groups
MAT6 Reading

Group	N	Pretest		Posttest		Difference	
		Mean	S.D.	Mean	S.D.	Mean	S.D.
Total	428	46.6	21.9	50.2	16.9	3.4	17.1
WTR	202	44.5	21.0	49.2	16.6	4.2	16.9
REG	226	48.7	22.6	51.1	17.1	2.7	17.2
FDK	182	48.7	21.7	53.3	18.2	5.0	15.6
HDK	246	45.1	22.0	47.9	15.5	2.2	18.0
FDKWTR	36	56.5	18.2	63.9	17.8	7.1	15.8
FDKREG	146	46.6	22.1	50.7	17.4	4.5	15.6
HDKWTR	166	41.9	20.6	46.9	14.6	3.5	17.1
HDKREG	80	52.6	23.2	51.8	16.7	-0.7	19.6

	WTR	REG	
FDK	FDKWTR 7.1 n = 36	FDKREG 4.5 n = 146	5.0 n = 182
HDK	HDKWTR 3.5 n = 166	HDKREG -0.7 n = 80	2.2 n = 246
	4.2 n = 202	2.7 n = 226	3.4 N = 428

Figure 3

Average Pre-post NCE Differences in
Reading Scores by Program and Cell Groups

Chapter 1 programs in Columbus have a goal of a growth of one NCE point per month of program. Applying the Chapter 1 criterion, the goal for the 11-week period between pretest and posttest would be a gain of 2.75 NCE points. The overall gain in reading exceeds the Chapter 1 criterion.

NCE performances for program groups compared in Table 2 indicate an average growth in reading for students in WTR classrooms of 4.2 NCE points; the average growth for students in REG classes was 2.7 NCE points. The average growth in reading of students in FDK classrooms was 5.0; of students in HDK classes, 2.2. Students in classrooms with the WTR and FDK programs attained more than the Chapter 1 goal of 2.75 NCEs in the 11-week period between pretest and posttest. Students in REG classes and in HDK classes did not achieve the Chapter 1 goal of a gain of 2.75 NCE points.

Average differences in NCE scores are noted in Figure 3 for students in each cell of the evaluation design. The highest NCE change of 7.1 in reading is shown for students in FDKWTR classes. Students in FDKREG classes showed the next highest NCE gain of 4.5. The average NCE change in reading for students in HDKWTR classes was 3.5 NCE points; the average change for students in HDKREG classes was -0.7 NCE points.

Information collected to answer the evaluation questions regarding growth in reading indicates that kindergarten students in WTR classrooms achieved greater NCE gains than students in REG classes. Students in FDK classrooms achieved greater gains than students in HDK classes. The greatest growth in reading was achieved by students in FDKWTR classes. Students in HDKWTR classes achieved greater than expected gains in reading. Students in HDKREG classes regressed from pretest to posttest.

Question 1.2 Do students in WTR classrooms show more growth in language than students in other classes?

Question 2.2 Do students in FDK classrooms show more growth in language than students in other classes?

Information about student growth in language was collected from matched pre-post performances on the MAT6. Averages and standard deviations of NCE pretest, posttest and difference scores are reported in Table 3 for program and cell groups. Figure 4 shows NCE difference scores for program and for each cell.

The average gain in language attained by the total group of kindergarten students was 3.1 NCE points. As with reading, the group as a whole gained more than the Chapter 1 criterion during the 11-week period from pretest to posttest.

Table 3
Average and Standard Deviation (S.D.)
Pretest and Posttest Normal Curve Equivalents
(NCE) by Program Evaluation Groups
Language

Group	N	Pretest		Posttest		Difference	
		Mean	S.D.	Mean	S.D.	Mean	S.D.
Total	461	52.9	21.2	56.2	19.5	3.1	21.0
WTR	228	50.4	20.7	55.3	20.1	4.8	21.3
REG	233	55.4	21.4	57.0	18.9	1.4	20.5
FDK	195	53.8	20.2	60.8	20.6	7.0	20.9
HDK	266	52.3	21.8	52.8	18.0	0.2	20.6
FDKWTR	42	55.7	17.0	72.6	23.0	16.9	19.7
FDKREG	153	53.3	21.1	57.6	18.7	4.3	20.4
HDKWTR	186	49.2	21.3	51.5	17.3	2.1	20.7
HDKREG	80	59.4	21.5	55.8	19.2	-4.1	19.6

	WTR	REG	
FDK	FDKWTR 16.9 n = 42	FDKREG 4.3 n = 153	7.0 n = 195
HDK	HDKWTR 2.1 n = 186	HDKREG -4.1 n = 80	0.2 n = 266
	4.8 n = 228	2.7 n = 233	N = 461

Figure 4
Average Pre-post NCE Differences in
Language Scores By Program And Cell Groups

NCE difference scores for program groups show that students in WTR classrooms gained an average of 4.8 NCE points in language; students in REG classes gained 1.4 NCE points. Students in FDK classrooms gained 7.0 NCE points and students in HDK classes gained 0.2 NCE points.

Average differences in NCE scores for cell groups in Figure 4 show an average NCE gain of 16.9 for FDKWTR students. FDKREG students show an average gain of 4.3 NCE points. HDKWTR classes show somewhat less than expected gains in language of 2.1 NCE points, and HDKREG classes without WTR show a negative difference of -4.1 NCE points.

The Kruskal-Wallis one-way analysis of variance by ranks was utilized to test the null hypothesis that the four cell groups are from the same population. The average rank of NCE change scores in language are summarized in Table 4. The null

Table 4

Average Ranks of NCE Change Scores
In Language For Cell Groups

Group	n	Average Rank
FDKWTR	42	318.12
FDKREG	153	239.59
HDKWTR	186	222.72
HDKREG	80	188.10

CHI-Square = 27.61 p<.001

hypothesis is rejected ($p<.001$). Inspection of the average ranks in Table 4 suggests that the FDKWTR group of students scored higher than other groups.

Evaluation data about growth in language indicates trends similar to those noted for reading among program student groups. Kindergarten students in FDK classes achieved greater NCE gains in language than students in HDK classes. Students in WTR classes achieved greater gains than students in REG classes. The greatest growth was achieved by the students in FDKWTR classes. Students in FDKREG classes achieved greater than expected gains. Students in HDKWTR classes achieved slightly lower than expected NCE gains in language. Students in HDKREG classes regressed from pretest to posttest.

Growth in mathematics was not in question for the evaluation student groups. However, mathematics scores obtained from pretest and posttest administrations of the MAT6 were analyzed along with reading and language data to compile a total survey test score. Average pretest and posttest and NCE differences in mathematics shown in Table 4 suggest a serendipity effect for WTR classes in this area of achievement. The average NCE gain in mathematics for WTR classes is 4.1 points compared to 0.4 for regular classes. An average NCE gain of 2.7 for FDK classes approached the Chapter 1 goal of a 2.75 NCE gain compared to the average NCE gain of 1.9 in mathematics for HDK classes.

Comparisons among cell groups indicate the greatest growth for students in FDKWTR classes with an average NCE gain of 4.9 in mathematics. Students in HDKWTR classes rank second with average NCE gains of 4.0. Students in FDKREG classes are third with average gains of 2.2. Students in HDKREG classes show an NCE difference score of -3.2 in mathematics. See Figure 5.

Summaries of NCE performances on the total survey battery are contained in Table 6. Figure 6 displays average NCE difference scores for program and cell groups. Achievement patterns in reading and mathematics were repeated by cell groups in total achievement. FDKWTR classes showed greatest growth in total achievement followed by FDKREG classes. HDKWTR achieved greater gains than HDKREG classes.

The Krushall-Wallis one-way analysis of variance was utilized to test the null hypothesis that the four cell groups are from the same population. The average rank of NCE change scores in total achievement are summarized in Table 7.

Table 7

Average Ranks of NCE Change Scores
In Total Achievement For Cell Groups

Group	n	Average Rank
FDKWTR	32	255.03
FDKREG	134	210.48
HDKWTR	159	197.74
HDKREG	74	162.08

CHI-Square = 16.45 $p < .0009$

The null hypothesis is rejected ($p < .0009$). Average ranks shown in Table 7 indicate that the FDKWTR group, in general scored higher than other groups in total achievement.

Question 1.3 Do students in WTR classrooms score higher on a measure of written product than students in other classes?

Question 2.3 Do students in FDK classrooms score higher on a measure of written product than students in other classes?

Students writing samples were collected by kindergarten class teachers on May 14 and 15, 1987. A standardized set of instructions was provided to teachers for obtaining the samples. Instructions included a story selection and a script for teachers to use for prompting student writing. The story selection from the book, Frog And Toad Are Friends, by Arnold Lobel was read by the teacher in an instructional setting to her class. After reading the story the teacher guided by the script, initiated a short discussion with students about personal friendships. Following discussion students were prompted by the teacher to write and/or draw about their friend(s). A copy of the script used for prompting student writing is contained in Appendix A.

Table 5
 Metropolitan Achievement Test
 Pre-Post Matched NCE Scores
 Mathematics

Group	N	Pretest		Posttest		Difference	
		Mean	S.D.	Mean	S.D.	Mean	S.D.
Total	444	43.3	20.7	46.1	18.5	2.2	16.7
WTR	220	42.2	20.2	46.5	19.8	4.1	17.7
REG	224	44.4	21.1	45.7	17.1	.4	15.3
FDK	186	45.5	21.2	49.0	18.5	2.70	15.4
HDK	258	41.8	20.2	43.9	18.2	1.9	17.6
FDKWTR	38	55.0	19.8	59.9	18.7	4.9	17.1
FDKREG	148	43.0	21.0	46.2	17.4	2.20	14.9
HDKWTR	182	39.5	19.3	43.6	18.8	4.0	17.9
HDKREG	76	47.2	21.2	44.7	16.7	- 3.2	15.6

	WTR	REG	
FDK	FDKWTR 4.9 n = 38	FDKREG 2.2 n = 148	2.7 n = 186
HDK	HDKWTR 4.0 n = 182	HDKREG -3.2 n = 76	1.9 n = 258
	4.1 n = 220	0.4 n = 224	2.2 N = 444

Figure 5
 Average Pre-post NCE Differences in
 Mathematic Scores By Program And Cell Groups

Table 6

Metropolitan Achievement Test
Pre-Post Matched NCE Scores
Total Survey Battery

Group	N	Pretest		Posttest		Difference	
		Mean	S.D.	Mean	S.D.	Mean	S.D.
Total	399	43.1	19.6	49.8	17.8	6.5	12.6
WTR	191	41.2	18.4	48	17.4	7.4	12.7
REG	208	45.0	20.4	50.8	18.0	5.6	12.4
FDK	166	45.0	19.5	53.5	19.2	8.7	11.9
HDK	233	41.8	19.5	47.1	16.2	4.9	12.8
FDKWTR	32	52.2	15.4	64.3	18.6	12.4	11.1
FDKREG	134	43.1	20.1	50.9	18.5	7.8	12.0
HDKWTR	159	38.8	18.2	45.5	15.4	6.3	12.8
HDKREG	74	48.5	20.8	50.7	17.3	1.7	12.4

	WTR	REG	
FDK	FDKWTR 12.4 n = 32	FDKREG 7.8 n = 134	8.7 n = 166
HDK	HDKWTR 6.3 n = 159	HDKREG 1.7 n = 74	4.9 n = 233
	7.4 n = 191	5.6 n = 208	6.5 N = 399

Figure 6

Average Pre-post NCE Differences in
Total Achievement Scores By Program and Cell Groups

Writing samples collected from 478 kindergarten students were scored by two trained readers using a locally developed 5-point scale. See Appendix B. The inter-reader reliability co-efficient was 0.8. Scores by the two readers were the same or within one point of each other for 463 samples. If the two readers did not agree the lower score was used for evaluation purposes.

Information about student writing is summarized in Table 8. The overall average rating for writing was 2.7 with a mode of 2.0. Results for program groups indicate a slightly higher average rating of 2.8 for students in WTR classes compared to 2.7 for regular classes. The average rating of 3.1 for students in FDK classes is higher than the average rating of 2.5 achieved by HDK classes.

Average ratings for kindergarten groups in the four design cells indicate that students in FDKWTR classes achieved the highest writing scores with more than 50% of the group receiving ratings of 4.0 or higher. The average score for students in FDKWTR classes was 3.6. FDKREG classes received the next highest average rating of 2.9. HDKWTR classes received an average rating of 2.6; HDKREG students, 2.3.

The Kruskal-Wallis one-way analysis of variance by ranks was utilized to test the null hypothesis that the four cell groups are from the same population. The average ranks of written product scores by groups are summarized in Table 9.

Table 9

Average Ranks of Written Product Scores
For Cell Groups

Group	n	Average Rank
FDKWTR	44	340.89
FDKREG	155	264.47
HDKWTR	186	220.57
HDKREG	93	187.77

CHI-Square = 45.30 p<.001

The null hypothesis is rejected ($p<.001$). Average ranks in Table 9 indicate that students in the FDKWTR group generally scored higher than other groups on a measure of written product.

Data collected in response to the questions about writing indicates higher scores on a measure of written product for students in WTR and in FDK classrooms. Students in FDKWTR classrooms scored substantially higher on the written measure than students in other classes.

Question 1.4 Do students in WTR classrooms exhibit different patterns of grades and social adjustment as reported on grade cards?

Question 2.4 Do students in FDK classrooms exhibit different patterns of grades and social adjustment as reported on grade cards?

Table 8
Average Scores and Percents of Scores
By Program And Cell Groups On a Measure of
Written Product

Group	N	Mean	% Above Mean of Total Group	1	Percents of Ratings			
					2	3	4	5
Total	478	2.7	50.0	9.8	42.1	20.1	22.0	6.1
WTR	230	2.8	48.5	7.8	43.0	20.4	23.5	5.2
REG	248	2.7	47.3	11.7	41.1	19.8	20.6	6.9
FDK	199	3.1	61.8	5.0	33.2	21.6	29.1	11.1
HDK	279	2.5	38.3	13.3	48.4	19.0	16.8	2.5
FDKWTR	44	3.6	86.3	6.8	6.8	22.7	50.0	13.6
FDKREG	155	2.9	54.8	4.5	40.6	21.3	23.2	10.3
HDKWTR	186	2.6	40.3	8.1	51.1	19.9	17.2	3.2
HDKREG	93	2.3	34.4	23.7	41.9	17.2	16.1	1.1

	WTR	REG	
FDK	FDKWTR 3.6 n = 44	FDKREG 2.9 n = 155	3.1 N = 199
HDK	HDKWTR 2.6 n = 186	HDKREG 2.3 n = 93	2.5 N = 279
	2.8 n = 230	2.7 n = 248	478 = Total

Figure 7

Average Scores On a Measure of
Written Product By Program And Cell Groups

Copies of the Kindergarten Progress Report for all evaluation participants were collected from classroom teachers at the end of the school year in June 1987. The Progress Report provided information about grades and social adjustment of kindergarten students. Students were graded at the end of four nine-week periods during the year in specific skills that comprised general areas of achievement or adjustment. In addition, students received final grades at the end of the year in the general areas of reading, language, mathematics, work habits and personal/social growth. They received grades of S for successful, P for partially successful, and N for not yet successful in general areas, as well as, in specific skills. A copy of the Kindergarten Progress Report is contained in Appendix C. Final grades in general achievement and adjustment areas, fourth-period grades in adjustment areas, work habits and personal/social growth, and in eight specific skills that define these were analyzed for evaluation purposes.

Information about final grades is presented in Table 10 for program groups and in Table 11 for cell groups. Data for program groups show that 61.6% of students in WTR classes received successful final grades in reading; 67.2% of students in REG classes received successful final grades. Of students in FDK classes, 74.2% received successful final grades; 57.9% of students in HDK classes received successful final grades in reading.

Data for cell groups shows 79.5% of students in FDKWTR classes were graded successful in reading; 72.6% of students in FDKREG classes were graded successful. In HDKWTR classes, 57.6% were successful; in HDKREG 58.7% were successful in reading.

The Krushall-Wallis one-way analysis of variance was utilized to test the null hypothesis that the four cell groups are from the same population. The average ranks of reading final grades are summarized in Table 12. Average rank was computed from grades coded for analysis: 1 = successful, 2 = partially successful and 3 = not yet successful.

Table 12

Average Ranks of Reading Final Grades
For Cell Groups

Group	n	Average Rank
FDKWTR	44	203.67
FDKREG	146	220.86
HDKWTR	198	253.52
HDKREG	92	261.26

CHI-Square = 9.83 p<.02

The null hypothesis is rejected ($p < .02$). Inspection of average ranks in Table 12 suggests that students in the FDKWTR group, in general, were graded more successful in reading by their teachers than the other groups.

A similar pattern is noted for final grades in language. Of students in WTR classes, 62.5% were graded successful; in REG classes, 65.0% were graded successful. In FDK classes, 71.9% of students were successful in language and in HDK classes, 58.5% were successful.

Table 10

Percents of Final Grades Received By
Program Groups

Grade Card Area	Percents of Final Grades											
	WTR			REG			FDK			HDK		
	1	2	3	1	2	3	1	2	3	1	2	3
Reading	61.6	32.2	6.2	67.2	21.4	11.3	74.2	19.5	6.3	57.9	31.7	10.5
Language	62.5	35.9	1.6	65.0	32.5	2.5	71.9	27.1	1.0	58.5	38.8	2.7
Mathematics	65.9	32.1	2.0	70.3	23.8	5.9	75.9	21.5	3.1	63.3	32.3	4.4
Work Habits	70.4	28.0	1.6	71.0	26.0	3.1	72.4	23.8	3.7	69.5	29.2	1.3
Personal/Social Growth	68.8	31.7	1.5	69.3	25.6	5.1	64.6	28.2	7.3	71.2	28.4	0.4

Note: 1 = Successful, 2 = Partially successful, 3 = Not yet successful

Table 11
 Percents of Final Grades Received
 By Cell Groups

Grade Card Area	Percents of Final Grades											
	FDKWTR			FDKREG			HDKWTR			HDKREG		
	1	2	3	1	2	3	1	2	3	1	2	3
Reading	79.5	15.9	4.5	72.6	20.5	6.8	57.6	35.1	6.6	58.7	22.8	18.5
Language	77.3	35.9	1.6	70.3	32.5	2.5	59.4	39.1	1.4	56.5	38.0	5.8
Mathematics	84.1	13.6	2.3	72.8	23.8	3.4	62.0	36.1	2.0	66.3	23.9	9.8
Work Habits	84.1	11.4	4.5	69.4	27.1	3.5	67.5	31.6	1.0	73.9	23.9	2.2
Personal/Social Growth	65.9	29.5	4.5	64.2	27.8	8.0	67.1	32.2	0.6	78.3	21.7	0.0

Note: 1 = Successful, 2 = Partially successful, 3 = Not yet successful

Of the cell groups, 77.3% of students in FDKWTR classes and 70.3% in FDKREG classes received successful final grades in language. In HDKWTR classes 59.4% were successful; in HDKREG classes, 56.5% of students were successful in language.

The pattern of final grades for reading was repeated by program groups for mathematics. In WTR classes 65.9% of students were graded successful and in REG classes, 70.3% were graded successful in mathematics. In FDK classes 75.4% of students were successful; in HDK classes, 63.3%.

Of cell groups, 84.1% of students in FDKWTR classes and 75.4% in FDKREG classes were graded successful. In HDKWTR classes 62.0% were successful; in HDKREG classes 66.3% were successful in mathematics.

The patterns of final grades in achievement areas of reading, language and mathematics on the Progress Report indicate teachers perceived greater success in all three areas for students in FDK classes and in REG classes. Among the cell groups, teachers of students in FDKWTR classes gave substantially higher percents of successful final grades in reading, mathematics, and language. Teachers of HDKWTR classes gave the lowest percents of successful final grades in reading and mathematics and the highest percents of partially successful final grades in all three achievement areas.

Fourth-period grades in specific skills, as well as in the general areas of work habits and personal/social growth provided information about social adjustment of kindergarten students. Fourth period grades are summarized in Table 12 for program groups and in Table 13 for cell groups.

Fourth period grades in work habits show that teachers of WTR classes graded 76.5% of their students successful; teachers of REG classes graded 75.2% successful. Teachers of FDK classes graded 74.3% successful, teachers of HDK classes, 76.9%.

Of cell groups, FDKWTR and HDKREG students received similar percents of successful grades in work habits. FDKREG students received the lowest percent, of successful grades in the general area of work habits.

In five skills associated with work habits, students in WTR classrooms received higher percents of successful grades from their teachers than students in regular classes: 1) follows directions; 2) completes work on time, 3) takes care of personal and classroom materials, 4) takes pride in work, and 5) works independently. In these skills with the exception of follows directions, students in HDK classes received higher percents of successful grades than students in FDK classrooms.

Among cell groups grade patterns for specific work habit skills varied. FDKWTR students were most successful at completes work on time and least successful at takes pride in work. HDKWTR students were most successful at takes pride in work and least successful at follows directions and completes work on time. FDKREG students received the lowest percents of successful grades in completes work on time, takes care of personal and classroom materials, and works independently.

Table 13

Percents of Fourth Period Grades
By Program Groups

Grade Card Skills	Percents of Fourth Period Grades											
	WTR			REG			FDK			HDK		
	1	2	3	1	2	3	1	2	3	1	2	3
<u>Work Habits</u>	76.5	20.7	2.8	75.2	22.1	2.7	74.3	22.0	3.7	76.9	21.1	2.0
Follows Directions	68.9	27.5	3.6	67.6	28.5	4.2	70.1	23.8	6.1	66.9	30.8	2.3
Completes work on time	79.3	17.1	3.6	73.3	20.6	6.1	73.8	19.2	7.0	77.9	18.7	3.3
Takes care of personal and classroom materials	87.6	9.6	2.8	82.8	16.0	1.1	79.4	17.3	3.3	89.3	9.7	1.0
Takes pride in work	80.5	17.9	1.6	76.6	20.7	2.7	75.6	20.6	3.8	80.6	18.4	1.0
Works independently	67.3	29.9	2.8	66.7	26.8	6.5	66.7	25.4	8.0	67.2	30.4	2.3
<u>Personal/Social Growth</u>	70.6	26.5	2.9	70.1	26.1	3.8	65.7	28.2	6.1	71.2	28.4	0.4
Works and plays well with others	69.6	26.5	3.9	66.7	28.0	5.4	66.2	27.2	6.6	75.4	22.2	2.4
Follows classroom and school rules	64.2	29.9	5.9	66.7	28.0	5.4	59.6	31.5	8.9	70.6	26.6	2.8
Shows self confidence	79.4	19.6	1.0	71.6	25.3	3.1	72.8	23.5	3.8	77.0	22.2	0.8

Note: 1 = Successful, 2 = Partially successful, 3 = Not yet successful

Table 14

Percents of Fourth Period Grades
By Cell Groups

Grade Card Skills	Percents of Fourth Period Grades											
	FDKWTR			FDKREG			HDKWTR			HDKREG		
	1	2	3	1	2	3	1	2	3	1	2	3
<u>Work Habits</u>	79.5	15.9	4.5	72.9	23.1	3.5	75.8	21.7	2.4	79.3	19.6	1.1
Follows Directions	79.5	13.6	6.8	67.6	26.5	5.9	66.7	30.4	2.9	67.4	31.5	1.1
Completes work on time	79.5	13.6	6.8	72.4	20.6	2.1	79.2	17.2	2.9	75.0	20.7	4.3
Takes care of personal and classroom materials	88.6	2.3	9.1	77.1	21.6	1.8	87.4	11.1	1.4	93.5	6.5	0.0
Takes pride in work	75.0	20.5	4.5	75.7	20.7	3.6	81.4	17.4	1.0	78.3	20.7	1.1
Works independently	70.5	22.7	6.8	63.3	27.8	8.9	64.7	32.9	2.9	72.8	28.0	2.2
<u>Personal/Social Growth</u>	71.5	22.7	6.8	64.5	29.6	5.9	70.6	27.5	1.9	80.4	19.6	0.0
Works and plays well with others	68.2	27.2	4.5	65.7	27.2	7.1	70.0	26.2	3.7	84.8	15.2	0.0
Follows classroom and school rules	63.6	25.0	11.4	58.6	33.1	8.3	64.4	31.3	4.4	81.5	18.5	0.0
Shows self confidence	77.3	18.2	4.5	71.6	24.9	3.6	80.0	20.0	0.0	71.7	26.1	2.2

Note: 1 = Successful, 2 = Partially successful, 3 = Not yet successful

Percents of fourth period grades in personal/social growth indicate that teachers of WTR classes gave 70.6% successful grades; teachers of REG classes gave 70.1% successful. Teachers of FDK classes graded 65.7% of their students successful in personal/social growth; teachers of HDK classes graded 71.2% successful.

Among cell groups, HDKREG students received the highest percent, 80.4%, of successful grades, in personal/social growth. Students in HDKWTR classes received 70.6% successful grades. FDKWTR students were more successful, 71.5%, than FDKREG students with 64.5% successful final grades in personal/social growth.

Specific skills associated with personal/social growth (Tables 13 and 14) indicate higher percents of successful grades for works and plays well with others and shows self-confidence for WTR students. REG students were considered more successful at follows classroom and school rules. Students in HDK classes were more successful in acquiring three skills associated with personal/social growth than students in FDK classrooms: 1) works and plays well with others, 2) follows classroom and school rules, and 3) shows self-confidence.

Among cell groups HDKREG classes were the most successful in personal/social growth skills of works and plays well with others and follows classroom and school rules. Students in FDKWTR classes showed the most self-confidence.

The Krushall-Wallis one-way analysis of variance was utilized to test the null hypothesis that the four cell groups are from the same population. Average ranks of grades in the personal/social skill of follows classroom and school rules are summarized in Table 15.

Table 15

Average Ranks Of Fourth Period Grades
In Follows Classroom And School Rules
For Cell Groups

Group	n	Average Rank
FDKWTR	44	241.91
FDKREG	169	250.54
HDKWTR	160	244.70
HDKREG	92	193.56

CHI-Square = 7.62 p<.01

The null hypothesis is rejected ($p<.01$). Average ranks in Table 15 indicate that students in the HDKREG group generally were considered more successful by their teachers than other groups in follows classroom and school rules.

Data analyzed in response to the evaluation questions about patterns of grades and social adjustment for kindergarten program groups is summarized as follows:

- o Students in REG classes received higher percents of successful final grades in general achievement and adjustment areas of the Progress Report than students in WTR classes. However, WTR students received higher percents of successful fourth-period grades in the adjustment areas. WTR students also were more successful than REG students in seven of eight specific skills defining adjustment.

- o Students in FDK classes received higher percents of successful final grades in general achievement areas than HDK students. However, HDK students received higher percents of successful fourth period grades in adjustment areas and in seven of eight specific skills defining these.
- o Of cell groups students in FDKWTR classes received more successful grades in reading, language, mathematics, and work habits than other student groups. Students in HDKREG classes received more successful grades in personal/social growth than other student groups.
- o Students in HDKWTR classes received the lowest percents of successful final grades in reading from their teachers. They received highest percents of partially successful final grades in all general areas of the grade card; reading, language, mathematics, work habits, and personal/social growth.
- o Students attending HDKREG classes received the highest percent of successful final and fourth period grades in personal/social growth from their teachers. They received highest percents of successful fourth period grades in two of three skills associated with personal/social growth. Overall grades in work habits and personal/social growth indicate the most successful adjustment for students in HDKREG classes.

Summary/Recommendations

Approximately 500 kindergarten students participated during the 1986-1987 school year in programs that represent a change from the traditional half day kindergarten (HDK) . One program extended half day sessions to full day classes for kindergarten students. The purpose of the full day kindergarten (FDK) was to provide opportunity for adjustment to the schedule of activities experienced during the school day by most elementary aged children. Other intents of full day class sessions were to increase opportunities for personal social development and for instruction in all curriculum areas, but especially in art, music and physical education.

A second program provided for interactive experiences with IBM personal computers centered on beginning reading and writing skills. This program known as Writing to Read (WTR) was intended to stimulate and motivate student learning in a technologically updated environment.

The combination of FDK, HDK and WTR resulted in four distinct treatments; FDK with WTR HDK with WTR, FDK with regular instruction (REG), and HDK with REG. The evaluation considered all four treatment groups.

Evaluation activities were planned to answer eight questions regarding achievement in reading, language, writing, and social adjustment of students in FDK and WTR classrooms. Question 1.1: Do students in WTR classrooms show more growth in reading than students in other classes? Question 1.2: Do students in WTR classrooms show more growth in language than students in other classes? Question 1.3: Do students in WTR classrooms score higher on a measure of written product than students in other classes? Question 1.4: Do students in WTR classrooms exhibit different patterns of grades and social development as reported on grade cards? Question 2.1: Do students in FDK classrooms show more growth in reading than students in other classes? Question 2.2: Do students in FDK classrooms show more growth in language than students in other classes? 2.3: Do students in FDK classrooms score higher on a measure of written product than students in other classes? Question 2.4: Do students in FDK classrooms exhibit different patterns of grades and social adjustment as reported on grade cards?

Evaluation outcomes were reported for the two program groups FDK and WTR and for two control groups of students in half day classes and in classes with regular instruction (without WTR). Outcomes were reported, also, for students in treatment groups resulting from combinations of FDK, HDK, and WTR: FDKWTR, HDKWTR, FDKREG and HDKREG.

Achievement in the curriculum areas of reading, language, and writing was greater for students in FDK classrooms and in WTR classrooms than in other classes. Greater achievement in reading and language was indicated by pre-post changes in standardized test scores. Scores on a measure of written product indicated greater achievement in writing for FDK and WTR students. Final grades given by program teachers indicated more successful achievement in reading and language for students in FDK classrooms.

Among treatment groups, students in FDKWTR classes consistently showed the greatest achievement in reading, language, and writing. Substantial differences were noted for the FDKWTR group in MAT6 language performances, written product scores and final reading grades from teachers. Students in HDKWTR classes received highest percents of partially successful grades from teachers in reading. Teachers of all treatment groups gave higher percents of partially successful grades in language than in other achievement areas.

Social adjustment of students was determined by grades in two general areas on the kindergarten report card called Work Habits and Personal/Social Growth. Grades in eight specific skills defining the general areas provided further indication of social adjustment.

Grade card data indicated similar success for program groups of students in acquiring five skills defining Work Habits. Students in WTR classrooms were somewhat more successful in acquiring work habits in kindergarten than students in REG classes. Students in HDK classes were more successful than FDK students in acquiring three work habits, completes work on time, takes care of personal and classroom materials, and takes pride in work.

In the area of personal/social growth students in WTR classrooms received more successful grades than students in REG classes. HDK students generally were more successful in personal/social skills than FDK students. Among treatment groups kindergarten students in traditional half day classes were most successful in achieving the skills of personal/social growth.

Recommendations based on the major findings are as follows:

1. Continue Full Day Kindergarten and Writing to Read as appropriate and effective programs for students in Columbus Schools.
2. Expand the FDK and WTR programs to operate in combination based on the greater achievement gains of students in the combined FDKWTR treatment group.
3. Evaluate the programs further to determine the effects of more instructional time and computer aided instruction on teacher attitudes and expectations for kindergarten students.
4. Review program goals for Full Day Kindergarten to provide more specific guidelines for teachers and for evaluation.

SCRIPT FOR ADMINISTERING THE WRITING ASSESSMENT

1. FOLLOW THE INSTRUCTIONS CAREFULLY. IT IS IMPORTANT THAT ALL STUDENTS BE GIVEN THE SAME DIRECTIONS. YOU SHOULD READ ALL UPPER-CASE PRINTING ON THE SCRIPT TO YOUR STUDENTS AT THE APPROPRIATE TIMES.

2. The story you will be reading aloud to your class is contained in the book FROG AND TOAD ARE FRIENDS. You will only be reading the last story in this book entitled THE LETTER pages 53-64

PREWRITING: (approximately 15 minutes)

Reading aloud - Introduce the book by discussing friendship or a special friend. The story can be read to the entire class with the children seated close by on the floor where they can easily see the illustrations.

Discussing - Ask the following questions and have one or two children answer each.

SAY : HOW MANY OF YOU HAVE A SPECIAL FRIEND?
WHAT ARE SOME THINGS YOU ENJOY DOING WITH YOUR FRIEND?

Tell the class that each of them will be able to tell about their special friend.

WRITING (10-15 minutes)

Introducing writing - Tell the class, "WE HAVE USED OUR TALKING VOICES TO TELL ABOUT OUR FRIENDS. NOW LET'S DRAW AND WRITE ABOUT OUR FRIEND. DON'T WORRY ABOUT HOW TO SPELL THE WORDS, JUST TELL ABOUT YOUR FRIEND. REMEMBER YOU CAN DRAW OR WRITE ABOUT YOUR FRIEND."

Getting it down - Allow children "Think time". When they have an idea in mind, have them raise their hands. Hand them paper and let them choose to use pencil or crayons or a combination of both. Encourage them to go to a comfortable place in the room and draw/write.

While the children are writing, move around the room and talk with children about what they are writing. For example: "Tell me about our picture/writing. Put that on paper."

Allow the children to use invented spelling. Provide encouragement instead of direct help. If a child asks how to spell a word, tell him/her to do his/her best or to put down what he/she thinks.

Pattern 1 (Rating of 1)

The writer uses his drawing to tell his/her story.

He makes an attempt at written symbol. He will begin by making circle shapes, squiggles and makes straighter, more controlled lines that are meant to be his written story.

Pattern 2 (Rating of 2)

He draws a picture.

He is beginning to make the connection that we use written symbols to tell stories.

He copies words from the environment and may use high frequency words.

He may use numbers and letters, especially letters in his own name.

Pattern 3 (Rating of 3)

He may draw an elaborate picture, writing down the names of parts of the picture. Labeling is in direct relationship to the picture.

This child has made the sound letter connection. He may use beginning consonants and final consonants as well as some vowel sounds. (be for bee, Sn for sun).

He shows that letters make words by stringing letters together in an attempt to tell his story.

Pattern 4 (Rating of 4)

He knows the direction in which print usually goes.

He writes down his main idea, applying sentence sense to his story.

The child represents most sounds in a word with a letter.

The child shows fluent use of some high frequency words.

Pattern 5 (Rating of 5)

His story may have a beginning, middle and/or end.

He uses lots of word and phrase repetition.

He spells conventionally words from reading and language experience.

He may begin to use capitalization and punctuation. (I am playn in the snow. I am troin snowbols at AMANdA. And AMANdA iz troin snowbols at Me.)

This child applies sentence sense to his story, applying phonics with greater ease.

Appendix C

**COLUMBUS PUBLIC SCHOOLS
KINDERGARTEN STUDENT PROGRESS REPORT**

19 ____ - 19 ____

Student _____

Teacher _____

School _____

EXPLANATION OF GRADES

- S Successful
- P Partially successful
- N Not at this time
- ✓ Used only in readiness area when a skill is mastered
- FG - Final grade for the year

WHEN A SKILL HAS NOT BEEN INTRODUCED THAT PARTICULAR SUBHEADING WILL NOT BE GRADED

	1	2	3	4
READINESS SKILLS				
Recites first and last name				
Recites address				
Recites telephone number				
Recites birthdate (month and date)				
Names the eight basic colors				
Shows skill using crayons				
Shows skill using scissors				
Manages own clothing				

	1	2	3	4	FG
READING					
Understands what is read					
Identifies the circled letters	A B C D E F G H I J K L M N O P Q R S T U V W X Y Z a b c d e f g h i j k l m n o p q r s t u v w x y z				
Associates letters and sounds					
Develops a sight vocabulary					
Grade level at which your child is being instructed in reading					

- PK = Prekindergarten
- K = Kindergarten
- 1 = 1st Grade
- 2 = 2nd Grade
- 3 = 3rd Grade

Please Refer to the Reverse Side for Additional Information

	1	2	3	4	FG
LANGUAGE ARTS					
Expresses ideas orally					
Responds to stories and poems					
Develops skill in handwriting					
Expresses ideas through writing					

	1	2	3	4	FG
MATHEMATICS					
Counts objects at least to 20					
Recognizes numerals through 12	0 1 2 3 4 5 6 7 8 9 10 11 12				
Develops skill in solving problems					
Understands math concepts					

SOCIAL STUDIES	1	2	3	4	FG

SCIENCE	1	2	3	4	FG

HEALTH	1	2	3	4	FG

ART	1	2	3	4	FG

MUSIC	1	2	3	4	FG

PHYSICAL EDUCATION	1	2	3	4	FG

	1	2	3	4	FG
WORK HABITS					
Follows directions					
Completes work on time					
Takes care of personal and classroom materials					
Takes pride in work					
Works independently					

LEGEND White Copy 1st Grading Period Pink Copy 2nd Grading Period Green Copy 3rd Grading Period Gold Copy Record Copy White Card Copy Parents Final Copy
Catalog 20134 (Rev. 5/86)

	1	2	3	4	FG
PERSONAL/SOCIAL GROWTH					
Works and plays well with others					
Follows classroom and school rules					
Shows self-confidence					

RECORD OF ATTENDANCE	1	2	3	4	TOTAL
Times Tardy					
Days Present					
Days Absent					

Parents Please Note if the Following Items Are Checked

	1	2	3	4
Letter enclosed				
Conference requested				

COMMENTS: _____

YOUR CHILD IS ASSIGNED TO:

Grade _____ School _____ Room _____

Date _____ Principal _____