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ABSTRACT

An evaluation of the developmental first grade, or pre-first grade, program of the Irving Independent School District (Texas) was conducted through four studies. Students are placed in the pre-first grade as a transition between kindergarten and first grade, typically on the basis of some assessment of maturity. The first study examined the relationship between students' age, gender, ethnicity, and pre-first placement in samples for 4 years that ranged from 1,495 to 1,697 students. Young age, being male, and being Hispanic American were associated with pre-first placement. The second study compared older elementary school students (grades 5, 6, and 7) who attended pre-first grade with 107 students for whom pre-first was recommended but who did not attend. In the third study, recommended pre-first students and those who were recommended and did not attend (samples of 42 to 157 each year) were compared in relation to promotion and special education placement with peers who were never recommended. The fourth study compared pre-first refusers with students promoted directly to the first grade. With or without participation in pre-first grade, recommended students did not perform as well as their promoted peers in terms of later retention, special education placement, or scores on the Texas Assessment of Academic Skills. The additional year of instruction did not help pre-first students perform better in later years, and more than the expected number of pre-first recommended students received special education placement in later years. In fact, students who were assessed as unready and accepted the pre-first placement actually performed less well than similar peers who refused the program. Why this occurred should be studied. An appendix contains three figures illustrating study data. (Contains 52 tables.) (SLD)

Evaluation of Pre-first Grade

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Paper presented at the annual meeting of American Educational Research Association, March 27, 1997, Chicago, IL.

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Executive Summary

The pre-first program evaluation consists of four studies: Study I is a profile study (i.e., age, sex, race,..etc) for the pre-first recommended students. Study II through Study IV compare the performance of the three study samples (two pre-first recommended groups and one non-recommended group) in the most recent four years (1992-95). All comparison studies investigate the retention rates, special education placement, and TAAS performance of students. The two pre-first recommended groups are: kindergarten students who accepted the pre-first placement (P1) and those who refused the program (P1-NP) in the subsequent year. The non-recommended students were promoted directly to first grade after kindergarten (PRO).

The research hypothesis is that the pre-first program is effective when P1 students (unready-to-learn but with program intervention) perform equally well as their PRO peers (ready-to-learn) and do better than their P1-NP counterparts (unready-to-learn but with no program intervention) after the program. Four corresponding research questions are:

- Who is identified as unready? Who needs the program?
- Does the program help unready kindergartners (P1) perform better than the similar students from the same kindergarten who refused to participate in the program?
- After the transitional program, did P1 students become competitive with their same grade peers who were never recommended for the pre-first (PRO-SG)?
- Do differences between P1 refusers (P1-NP) and their same age promoted peers (PRO-SA) become wider over time without the program intervention?

Study I: A Profile Study of Pre-first Students

This section examines the relationship between students' age, gender, ethnicity and the pre-first selection process. What related services are the pre-first students involved in by school year 1994-95? The major findings from this analysis are:

- Most Pre-first students are born in the summer (e.g., 40.7% born in June, July and August for 1994 kindergartners) in comparison to 19% of the promoted and placed to the first grade students. The significant association between age and pre-first selection are consistently shown for students in three other year cohorts (41.5%, 42%, & 42.7% for the P1 group versus 20.5%, 20% & 22.8% for promoted group). This finding implies that the standards used for the pre-first selection are highly correlated with the students' birthdays.
- Two consistent demographic characteristics of students who accepted the pre-first program are: being male and Hispanic. Both groups show a higher than expected percentage of students in the program (e.g., 52.4% observed versus 48.7% expected male; 31.7% observed vs. 16.8% expected Hispanics in the 1986-87 kindergarten cohort). There were 8.2% of male Hispanics and 33.8% male white students in this kindergarten group, in comparison with 16.6% of male Hispanics and 29.5% of male white students in the corresponding pre-first grade. When white students were recommended, they tended to refuse P1 in the first two cohorts (e.g., 80% observed vs. 69.5% expected in 8687 cohort). However, increasing numbers of white students who were recommended accepted the program in the later cohorts.
- A higher than district average percentage (11.3%) of the pre-first recommended students (either participated (24.7%) or refused (20%)) are placed in the special education program in 1994-95 school year.
- After school year 1989-90, when the number of the pre-first students expanded by more than a hundred, a slightly higher than district percentage were placed in the G/T program.

Study II: Comparison between Recommended/Participated with Recommended/Refused Students

Two recommended groups of students from the same kindergarten year who either accepted or refused the pre-first placement were compared. Because the accepted students were held up a year for the transitional grade, results of the participating students in one year are compared with the results of refuseing in the previous year. With similar level of ability at the first place, participating students should perform better than their non-participating peers if the program is effective. Overall the results show that the pre-first program may not be effective in reducing retention, reducing special education placement or improving TAAS performance because of the findings below:

- When again eligible for retention, more P1 students than the P1-NP students were retained. Results, however, need to be interpreted very carefully because of the small sample size problem.
- More P1 students were eventually placed in the special education than the P1-NP students.
- Fewer P1 students than the P1-NP students, later passed either reading or math on the TAAS.

Study III: Comparison Between the Participated and the Non-recommended Students

In this section, we compare students who were recommended and accepted the pre-first placement with their first grade classmates who were not recommended to the program. The program is effective when the participated students perform equally well as their peers. A supplementary study compares two groups of students who are similar in age so that age effects can be assessed. Our major findings from this analysis are:

- More P1 students than PRO students are later retained.
- More P1 students were eventually placed in the special education than the PRO students.
- Fewer P1 students than the PRO students, later passed either reading or math on the TAAS.
- Similar age PRO students did better on both reading and math TAAS than the P1 students.

Study IV: Comparison Between Recommended Refusers with promoted Students

Can P1 refusers compete with their promoted peers over time? Students who were recommended but refused the pre-first placement were compared with their promoted peers. A measure of the pre-first program is whether the former group perform equally well as the later one. We found that the "unready" students do need some help to be competitive with their promoted peers according to the following findings:

- More P1-NP students than the PRO students were retained in elementary school. Most P1-NP students were retained, if they were retained, in the early elementary grade (first and second grade).
- A higher percentage of P1-NP students were placed in the special education program than their PRO counterparts.
- PRO students did better than P1-NP students on TAAS, but the differences in some cohorts are small. In fact, P1-NP students in 1991-92 cohort did better than the PRO students on TAAS reading.

Conclusion

- With or without the program, recommended pre-first students did NOT perform as well as their promoted peers did in terms of later retention, special education placement, or TAAS scores.
- Receiving an additional year of instruction in pre-first not help student perform better, in later years, than their peers who refused the pre-first program.
- More than the expected number of the pre-first recommended students received special education services in later years.

Discussion

To validly compare the retention rates between pre-first students with the other two study samples is extremely difficult. The state policy restricts schools to retain an individual once between K to 4th and between 5th to 8th grade. Comparing retention of the pre-first students with other two groups in early elementary grade become invalid because no pre-first students are eligible to be retained in this period. Investigating the retention after students went to the fourth grade involves another challenge which most longitudinal studies have faced -- losing data. Many students moved out of the school district years later, which results in an even smaller size of the target group. The percentage used to demonstrate the retention rate is not a stable index when the sample size is small. Therefore, all results in this study should be interpreted carefully.

Many unexpected findings like: many pre-first students were placed to the special education, some have been placed in the gifted and talented indicate that there is a need for reviewing the pre-first selection process. Through out this study, we consistently found that a higher than district average number of pre-first recommended students were placed in the special education. Do those students need the special education or some other type of services in the first place, rather than the pre-first? Did the schools recommend students to pre-first because of difficulty in special education referral of the kindergartners and the first graders?

After school year 1989-90, when the number of the pre-first students expanded by more than a hundred, a slightly higher than district percentage were placed in the G/T program. Can the one-year transitional instruction transform students from "unready" to "talented", or might some bright youngsters be inappropriately identified perhaps because of their "atypical" behavior?

This study finds that students who were assessed as "unready" (or whatever the label is) and accepted the pre-first placement perform less well than their similar peers who refused the program. In other words, the program actually shows some negative effects on student performance. Does this indicate that holding up the youngsters one year makes little or no positive impact on academic growth? Can it also indicate that for those pre-first students who may need special education service, the delay is inappropriate?

In the absence of any significant positive findings for pre-first participation, and in light of the costs of providing the additional year of school, we encourage the District to study and implement effective alternatives to pre-first, and early elementary grade retention, in general. Current research suggests a number of possible alternatives to retention and pre-first grade, such as full-day kindergarten and pre-kindergarten, multi-grade primary school classrooms, teacher nesting (or looping), and extended-year programs.

Evaluation of Pre-first Grade

Introduction

A transitional program variously called "developmental first grade" or "pre-first grade" (current usage) has been in place in the Irving ISD since the early 1980's. Kindergarten transition programs generally involve placing a student in a kindergarten-like classroom for an extra year prior to first grade. The "transition" can be the one between pre-kindergarten and kindergarten, or, like Irving ISD's program, between kindergarten and first grade. Typically, some assessment of student maturity is the basis of placement. According to information gathered in the spring of 1990, the pre-first concept was initially developed and applied in the District around 1982 at Townley and Keyes Elementary Schools. At that time the program was called "developmental first grade." The pre-first program has since expanded to every elementary campus in the District, and includes both regular and bilingual program students.

Since its inception, the Irving ISD pre-first program has been perceived as successful in meeting the needs of students, parents and teachers. Nationally, however, kindergarten transition programs have become associated with the practice of grade retenetion. No formal evaluation of Irving ISD's pre-first program has been done before now. The major purpose of the pre-first program is to identify kindergarten students who are unready to advance to the first grade at the end of the kindergarten year, and then to provide them another year of transitional instruction that is designed to increase their readiness. It is believed that an effective transitional program helps the students avoid future failures in their school learning.

Four targeted sets of students were investigated and compared with each other. At the end of the kindergarten year, every student is assessed by her/his teacher to determine whether he/she is cognitively and socially "ready" to advance to the first-grade. A student who demonstrates a high cognitive ability and limited problem behaviors is usually recommend to be promoted directly to the first grade. This group of students is coded as 'PRO'. The transitional grade (i.e., pre-first) is recommended if the student either lacks the cognitive knowledge to digest the curriculum in the first grade, or demonstrates lack of maturity. Students who were recommended for the pre-first grade and participated for the program are coded as 'P1'. A pre-first eligible student who refuses the program and advances directly to the first grade is coded as 'P1-NP'. Students in the PRO group may be a year younger, for example, in comparison to the P1 group, or they may be about the same age, as in comparison with the P1-NP group. In the former the group is designated PRO-SG and in the later, PRO-SA.

This evaluation consists of four studies. Study I profiles the pre-first participants. Study II to Study IV compares the performance of the above three study samples with each other. All studies investigate retention rates and special education placement, for students from five different cohort years, for either three or four consecutive years (i.e., 1991-92 to 1994-95 school year). To investigate the program effect on students' academic achievement, the passing rates of the spring 95 TAAS were examined for all groups. Because the interest of this study is to explore as many years of information as we have, this evaluation study adapts the qualitative approach of research design.

Our hypothesis is that the pre-first program is effective when P1 students (unready-to-learn but with program intervention) perform equally well as their 'higher-ability' PRO peers (ready-to-learn) and do better than their P1-NP counterparts (unready-to-learn and without program intervention) after the program. Four corresponding research questions are:

- Who is identified as unready?
- Does the program help identified students who enter pre-first to perform better than the similar students from the same age cohort who refuse the program?
- Do P1 students become competitive after the transitional program with their same grade peers who never-been recommended to the pre-first (PRO-SG)?
- Do the differences between pre-first refusers (P1-NP) and their same age directly promoted peers (PRO-SA) grow wider without the program intervention?

Study I

A Profile of Pre-first Students

In the profile analysis of the pre-first program, the primary research question is: how does the student population of the pre-fiirst group compare to the first grade? Is there any relationship between pre-first membership and age, gender or ethnicity? What related services are they involved in as of school year 1994-95?

Age Distribution and Pre-first participation

This section compares the distribution of chronological age of the pre-first students with their peers who have been promoted. To study the relationship between age and grade placement, all students in kindergarten in one year were tracked in the subsequent year and found in two major categories--promoted or retained. Promoted students are advanced to the first grade the next year while the retained students are either go to pre-first (majority) or are retained in kindergarten (less than five students per year). In this profile study, students who were retained in the kindergarten were embraced to the pre-first group because the major purpose here is to investigate the relationship between age and grade promotion. The distributions of their birth month across groups are displayed on the following tables.

Table 1.1 displays the numbers and the corresponding percentages of the 1994 kindergarten students born in each month. The similar distributions are displayed below for the pre-first (retained) and first graders (promoted) in year 1995. The result shows that kindergartners in 1994 were born fairly evenly across the twelve months. Because the pre-first and 1st graders were the subpopulation of kindergarten, the students distribution on age of these two subgroups should not differ significantly from the kindergarten if the criterion of selecting the pre-first students is independent from age. That is, the within-group percentage of students born in each month should remain similar to the kindergarten profile.

Results show that the percentages of the pre-first students born in September through December (3.9%, 1.0%, 5.4% and 4.8%) are lower than the percentage of the kindergarten group (8.8%, 7.0% 9.4% and 9.3%). Oppositely, the percentages of P1 students born in June through August (11.0, 12.7 and 17.0) are higher than expected (6.8, 9.2 and 9.7) (see Table 1.1). The result of the chi-square statistic shows that this association between age and grade is highly significant (p=.000). This significant association between age and grade is consistently present for students in three other school year cohorts.

Table 1.1. Relationship Between "Birth Month" of the 1994 Kindergartners and Their Grade Promotion

			Birth Year/ Month											
			1987					1988						
Sch.Yr	Grade		Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	July	Aug
1994	K	N	150	118	160	157	137	146	133	127	134	115	156	164
		%	8.8	7.0	9.4	9.3	8.1	8.6	7.8	7.5	7.9	6.8	9.2	9.7
1995	Pre-1	N	20	5	28	25	38	48	45	49	50	57	66	88
		%	3.9	1.0	5.4	4.8	7.3	9.2	8.7	9.4	9.6	11.0	12.7	17.0
1995	1st	N	130	113	132	132	99	98	88	78	84	58	90	76
		%	11.0	9.6	11.2	11.2	8.4	8.3	7.5	6.6	7.1	4.9	7.6	6.5

Table 1.2 through Table 1.4 display the results of a similar age-grade analysis from school year 1993 back to 1991, respectively. Results from all three cohorts show that the age distribution of the pre-first group does not reflect the age distribution of the corresponding kindergarten group. Again, the percentages of pre-first students born in late spring and summer were higher than expected. Also, the chi-square statistics are highly significant with p=.000 for all three years. This finding implies that the standard(s) used to determine whether or not a student is ready for the first grade is (are) highly correlated with the month in which the students was born.

Table 1.2. Relationship Between "Birth Month" of the 1993 Kindergartners and Their Grade Promotion

			Birth Year/ Month											
			1986							1987				
Sch.Yr	Grade		Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	July	Aug
1993	K	N	124	126	130	149	134	128	137	134	146	120	159	152
		%	7.6	7.7	7.9	9.1	8.2	7.8	8.4	8.2	8.9	7.3	9.7	9.3
1994	Pre-1	N	14	12	24	24	22	30	39	37	63	42	74	72
		%	3.1	2.6	5.3	5.3	4.9	6.6	8.6	8.2	13.9	9.3	16.3	15.9
1994	1st	N	110	114	106	125	112	98	98	97	83	78	85	80
		%	9.3	9.6	8.9	10.5	9.4	8.3	8.3	8.2	7.0	6.6	7.2	6.7

Table 1.3. Relationship Between "Birth Month" of the 1992 Kindergartners and Their Grade Promotion

			Birth Year/ Month											
			1985							1986				
Sch.Yr	Grade		Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	July	Aug
1992	K	N	142	129	132	152	131	113	130	129	134	126	145	132
		%	8.9	8.1	8.3	9.5	8.2	7.1	8.2	8.1	8.4	7.9	9.1	8.3
1993	Pre-1	N	7	14	18	21	23	22	29	33	54	40	66	54
		%	1.8	3.7	4.7	5.5	6.0	5.8	7.6	8.7	14.2	10.5	17.3	14.2
1993	1st	N	135	115	114	131	108	91	101	96	80	86	79	78
		%	11.1	9.5	9.4	10.8	8.9	7.5	8.3	7.9	6.6	7.1	6.5	6.4

Table 1.4. Relationship Between "Birth Month" of the 1991 Kindergartners and Their Grade Promotion

			Birth Year/ Month											
			1984							1985				
Sch.Yr	Grade		Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	July	Aug
1991	K	N	126	125	123	150	130	123	108	118	120	121	147	165
		%	8.1	8.0	7.9	9.6	8.4	7.9	6.9	7.6	7.7	7.8	9.4	10.6
1992	Pre-1	N	4	14	16	17	28	31	35	33	46	47	58	62
		%	1.0	3.6	4.1	4.3	7.2	7.9	9.0	8.4	11.8	12.0	14.8	15.9
1992	1st	N	122	111	107	133	102	92	73	85	74	74	89	103
		%	10.5	9.5	9.2	11.4	8.8	7.9	6.3	7.3	6.4	6.4	7.6	8.8

Demographic Statistics

In this section, we investigate the demographic background of the kindergartners, pre-first students and the students who were qualified for pre-first but skiped to first grade (if available). There are two major research questions of this section of study. First, who participates in the pre-first program? Are there more boys than girls; and which ethnic group has more students participating the pre-first program? Secondly, who skipped the pre-first program? This study is conducted for these exploratory purposes.

Table 1.5 displays the demographic statistics of 1987 kindergartners and 1988 pre-first qualifiers (both participants and refusers). According to the result on Table 1.5, the percentage of male (52.4%) in pre-first is higher than expected (comparing with the previous year kindergarten sample, 48.7%). In terms of ethnicity, more than the expected number of black (observed 9.5% vs. expected 7.2%) and Hispanic (31.7% against 16.8%) students were placed in the pre-first program. More than the expected number of the white students (80.0% against 69.5%) refused to participate. Again, all numbers are compared with their corresponding kindergarten groups.

Table 1.5. Demographic Statistics and Program Participation of 1986-87 Kindergartners

School Year	Grade	Female	Male	Am.Ind	Asian	Afr.Am	Hisp.	White	Total
1986-87	K	409	388	5	47	57	134	554	797
		51.3%	48.7%	0.6%	5.9%	7.2%	16.8%	69.5%	
1987-88	P1	60	66	0	3	12	40	71	126
		47.6%	52.4%	0	2.4%	9.5%	31.7%	56.3%	
1987-88	P1-NP	15	15	0	0	2	4	24	30
		50.0%	50.0%	0	0	6.7%	13.3%	80.0%	

Tables 1.6 through 1.8 display the results of the same analysis for the kindergartners in school year 1988 through 1991 respectively, except 1990 (due to the missing data). The results consistently show that more than the expected number of male and Hispanic students are referred to the pre-first program. All other relationships between demographics and program participation do not show any kind of consistency. This, however, does not reflect that we should ignore those unique cases. In fact, some extreme numbers deserve attention. For example, in Table 1.8, a very large percentage of African American students (24.5%) refused the pre-first program.

Table 1.6. Demographic Statistics and Program Participation of 1987-88 Kindergartners

Year in KG	Grade	Female	Male	Am.Ind	Asian	Afr.Am	Hisp.	White	Total
1987-88	K	503	501	9	64	69	223	639	1004
		50.1%	49.9%	0.9%	6.4%	6.9%	22.2%	63.6%	
1988-89	P1	90	119	4	3	12	63	127	209
		43.1%	56.9%	1.9%	1.4%	5.7%	30.1%	60.8%	
1988-89	P1-NP	33	27	1	3	8	10	38	60
		55.0%	45.0%	1.7%	5.0%	13.3%	16.7%	63.3%	

Table 1.7. Demographic Statistics and Program Participation of 1988-89 Kindergartners

Year in KG	Grade	Female	Male	Am.Ind.	Asian	Afr.Am	Hisp.	White	Total
1988-89	K	587	605	8	59	88	259	778	1192
		49.2%	50.8%	0.7%	4.9%	7.4%	21.7%	65.3%	
1989-90	P1	138	164	2	6	20	74	200	302
		45.7%	54.3%	0.7%	2.0%	6.6%	24.5%	66.2%	
1989-90	P1-NP	50	57	1	3	11	27	65	107
		46.7%	53.3%	0.9%	2.8%	10.3%	25.2%	60.7%	

Table 1.8. Demographic Statistics and Program Participation of 1990-91 Kindergartners

Year in KG		Female	Male	Am.Ind.	Asian	Afr.Am	Hisp.	White	Total
1990-91	K	935	1006	12	87	238	527	1077	1941
		48.2%	51.8%	0.6%	4.5%	12.3%	27.2%	55.5%	
1991-92	P1	171	214	1	3	31	121	229	385
		44.4%	55.6%	0.3%	0.8%	8.1%	31.4%	59.5%	
1991-92	P1-NP	59	51	1	7	27	20	55	110
		53.6%	46.4%	0.9%	6.4%	24.5%	18.2%	50.0%	

Note. 1989-90 school year was skipped because of incompleteness of archival data

Tables 1.9 through 1.11 display similar results for the subsequent three years (1992 to 1994) excluding the skip-to-first grade group because of missing data. In these three years, the only consistent relationship is that a high percentage of male students were referred to and participated in the pre-first program.

Table 1.9. Demographic Statistics and Program Participation of 1991-92 Kindergartners

Year in KG	Grade	Female	Male	Am.Ind.	Asian	Afr.Am	Hisp.	White	Total
1991-92	K	1003	1021	14	107	226	599	1078	2024
		49.6%	50.4%	0.7%	5.3%	11.2%	29.6%	53.3%	
1992-93	P1	150	223	1	3	30	119	220	373
		40.2%	59.8%	0.3%	0.8%	8.0%	31.9%	59.0%	
1992-93	P1-NP	NA							

Note. no records available for this group of students from this year on.

Table 1.10. Demographic Statistics and Program Participation of 1992-93 Kindergartners

Year in KG		Female	Male	Am.Ind.	Asian	Afr.Am	Hisp.	White	Total
1992-93	K	1012	1106	17	116	283	665	1037	2118
		47.8%	52.2%	0.8%	5.5%	13.4%	31.4%	49.0%	
1993-94	Pre-1st	143	222	1	3	28	115	218	365
		39.2%	60.8%	0.3%	0.8%	7.7%	31.5%	59.7%	

Table 1.11. Demographic Statistics and Program Participation of 1993-94 Kindergartners

Year in KG		Female	Male	Am.Ind.	Asian	Afr.Am	Hisp.	White	Total
1993-94	K	995	1117	11	139	270	732	960	2112
		47.1%	52.9%	0.5%	6.6%	12.8%	34.7%	45.5%	
1994-95	Pre-1st	215	301	4	15	45	211	241	516
		41.7%	58.3%	0.8%	2.9%	8.7%	40.9%	46.7%	

Related Services in 1994-95

In this section, we investigated the related instructional services (special education, bilingual/ESL, GT) two study samples received in school year 1994-95. Both samples were selected from the kindergarten cohorts 1986-87 to 1990-91 who were still in the District in school year 1994-95 (the latest year of data available). The district number for each category which was taken from Fall 1994 PEIMS submission is displayed on the bottom of each table and used as the base indicator for comparison.

The results for special education show that both study samples (i.e., P1 and P1-NP) demonstrate a higher percentage of being placed in special education than the district average in year 1994-95. This relationship between being recommended for pre-first and placement in special education is stronger for the P1 group than the P1-NP group. For the participating group, the percentage of P1 students from five different kindergarten cohorts are consistently higher than the district average (24.7, 19.1, 16.0, 18.4 and 16.6% for cohort 1986-87 to 1990-91, vs. 11.3% district average). This result also shows that the longer P1 students are in school, the more likely he/she will be placed in special education.

The relationship between age and the needs for special education services is also found for the skipped-to-first grade group. Though there is only one group of the P1-NP students, it shows a higher than district average of special education placement (20 vs 11.3% district average), and the increasing trend across years was found (6.1, 8.2, 11.4 and 20% for cohort 1990-91 back to 1986-87 (excludes 1989-90)).

This finding indicates that both P1 and P1-NP students who are identified as "unready" in the pre-first selection process may need special education service or some other intervention program rather than the pre-first program. A higher percentage of the P1 group than the P1-NP group were placed in special education. These results suggest there may be a need for reviewing the policy of discouraging special education referral of kindergarten and first grade students or for developing less drastic, more focused interventions than either special education or pre-first.

The study of the bilingual/ESL program suggests that very few of pre-first qualified students in both groups (attend and skipped) were Hispanics, at least for the 1986-87 cohort. The participation of BIL/ESL students in the pre-first program increased dramatically from average of 7% to 14% in school year 1994-95, that mirrors the increasing availability of the bilingual pre-first program. The percentage of pre-first students who are economically disadvantaged is close to the district average, and the number of the skip-to-first group is lower than the district value. This result indicates that economically disadvantaged students who are refered to the pre-first are more likely to participate in the program than skip to the first grade. In conjunction with the finding that white students tended to refuse the program, these results may imply that people with different racial or social economic status have different perspectives on pre-first. The average percentage (4.5%) of the pre-first students who attended the G/T program later on is slightly lower than the district number (5.9%). This number declines significantly to 0.78% in year 1994-95 for some reason.

Table 1.12. Distribution of Both Pre-first Qualified Students (Participated & Skipped) Who Enrolled in the District in 1994-95

Year in KG	Group	Regular	Sp.Ed.	Bil/ESL	Fr/Rduc	GT	Total
1986-87	P1	64	21	0/0	35/7	1	85
		75.3%	24.7%	0%	49.4%	1.2%	100%
	P1-NP	20	5	0/0	1/2	1	25
		80%	20%	0%	12.0%	4%	100%
	District	88.7%	11.3%	14.4%	45.3%	5.9%	

Year in KG	Group	Regular	Sp.Ed.	Bil/ESL	Fr/Rduc	GT	Total
1987-88	P1	106	25	0/2	43/11	3	131
		80.9%	19.1%	0%/1.5%	41.2%	2.3%	100%
	P1-NP	31	4	0/0	4/2	3	35
		88.6%	11.4%	0%	17.1%	8.6%	100%
	District	88.7%	11.3%	14.4%	45.3%	5.9%	

Year in KG	Group	Regular	Sp.Ed.	Bil/ESL	Fr/Rduc	GT	Total
1988-89	P1	136	26	8/4	69/15	10	162
		84.0%	16.0%	4.9%/ 2.5%	51.9%	6.2%	100%
	P1-NP	56	5	1/2	18/6	3	61
		91.8%	8.2%	1.6%/ 3.3%	39.3%	4.9%	100%
	District	88.7%	11.3%	14.4%	45.3%	5.9%	

Year in KG	Group	Regular	Sp.Ed.	Bil/ESL	Fr/Rduc	GT	Total
1990-91*	P1	231	52	7/7	97/20	18	283
		81.6%	18.4%	2.5/2.5%	41.4%	6.4%	100%
	P1-NP	NA					
	District	88.7%	11.3%	14.4%	45.3%	5.9%	

Year in KG	Group	Regular	Sp.Ed.	Bil/ESL	Fr/Rduc	GT	Total
1991-92	P1	216	43	19/8	99/20	17	259
		83.4%	16.6%	7.3%/ 3.1%	45.9%	6.6%	100%
	P1-NP	62	4	0/0	17/6	3	66
		93.9%	6.1%	0%	34.9%	4.5%	100%
	District	88.7%	11.3%	14.4%	45.3%	5.9%	

Note. 1989-90 school year was skipped because of incompleteness of archival data.

The following three studies compare three study samples of students (i.e., students recommended and placed in pre-first, students recommended but not placed, and students not recommended and not placed in the pre-first). Because the interest of this study is to utalize all available data, this evaluation study adapts the qualitative approach of research design. All results are reported in terms of numbers of successful students in each group. Three criteria under investigation are: retention, placement to special education, and performance on TAAS.

Study II

Comparison Between Pre-First Recommended/Participated and Recommended/Refused Pre-first Students from the Same Age Cohort

The purpose of this study is to compare the two experimental samples representing those students recommended for the pre-first placement and placed (P1) and those recommended but not placed (P1-NP). Since both groups of students were in Kindergarten the same year and were split into different grade levels after the kindergarten, P1 students' performance in one year are compared with P1-NP students' performance in the previous year, so that the grade level will be aligned. For example, kindergarten students in school year 1985-86 enrolled in P1 in year 1986-87 went to the first grade in year 1987-88 are compared with P1-NP who were at kindergarten in year 1985-86 and at the first grade in year 1986-87. Therefore, all P1 students are, in average, one year older than their P1-NP peers. Please refer to Figure 1 through Figure 3 displayed in Appendix I for detailed information about each comparison group.

Method

Subjects

P1 Kindergarten students who were assessed as unready for the first grade in the spring of their kindergarten year, subsequently being placed in the pre-first grade the next year.

P1-NP (From the Same-Age Cohort) These students went to kindergarten with their P1 comparison peers and were identified and recommended for placement to the pre-first program. However, they were not placed to P1 due to parental wishes.

Results

Retention Rates

Table 2.1 displays the results of the retention analysis in the most recent three consecutive years for P1 and P1-NP students who went to the kindergarten in 1986-87. The first column indicates the grade level to which they should have been promoted in that particular year. A specific retention rate for a particular year was calculated and displayed in the designated area. The results of the P1 group in a year are always compared with P1-NP's score one year earlier so that both groups will be in the same grade. The results of this study are limited both by the availability of the data and by the state policy limiting retention.

The state policy allows schools to retain a specific student only once between first grade and 4th grade, and between 5th and 8th grade. Ideally, a student who has been retained once in the early elementary period or middle school period may not be retained again within the same period. The placement in pre-first is treated as a retention by the state, therefore, none of the pre-first students were eligible for retention until they went to the fifth grade. In other words, the state policy excludes the P1 students from being retained between 1st to 4th grade, resulting in a spuriously low retention rates for the P1 group in the early elementary grade.

Because of the state law described earlier, retention rates between P1 and P1-NP students were compared only after they were in the fourth grade (i.e., the first grade level that pre-first students are again eligible).

The result shows that one out of 89 P1 students (1.1%) was retained in the fourth grade. The retention rate of the P1-NP group was not reported in the Table because of a lack of data for this group.

When the retentions were analyzed for the second year, only students who were promoted to the next grade were included, so that the student retention in the first year will not be double counted. For example, in school year 1992-93, 88 P1 students who were promoted to the 6th grade in 1993-94 were investigated. The result shows that 2.3% of the P1 students were retained in the 5th grade in comparison of 0% for the P1-NP students were (see Table 2.2). The result for the third year of analysis shows that 3.8% of the promoted P1 students have been retained in the end of the school year compared to 0 P1-NP students (refer to Table 2.3). This result indicates that the retention rates of the P1group increases across years.

The result of this analysis should be interpreted with caution. The retention rates of both groups are very low because we only examine students who have been promoted each year through the fourth grade. It is reasonable that very few students who have received straight promotion to the fourth grade will be retained in the following school years. Also, it is very difficult to interpret the trend of percentage change shown in this study due to different mobility rates between groups. If more students in one group move out the district than the other, the results in the table change and reflects this different mobility. Therefore, we do NOT believe these data support tracking any sort of "progress" across time.

Table 2.1. Retention Rates of P1 and P1-NP Students Who Were in Kindergarten in 1986-87

Grade	P1						P1-NP					
	School Year	Retain N[1]	%	Promote N	%	Total N	School Year	Retain N	%	Promote N	%	Total N
5	1992-93	1	1.1	88	98.9	89	1991-92	NA				
6	1993-94	2	2.3	86	97.7	88	1992-93	0	0.0	9	100	9
7	1994-95	3	3.8	75	96.2	78	1993-94	0	0.0	9	100	9

Notes: 1. Number of students whom have ever been retained in the indicated year; Only promoted students were investigated further for the next year's grade status.

Table 2.2. Retention Rates of P1 and P1-NP Students Who Were in Kindergarten in 1987-88

Grade	P1						P1-NP					
	School Year	Retain N	%	Promote N	%	Total N	School Year	Retain N	%	Promote N	%	Total N
5	1993-94	1	.6	156	99.4	157	1992-93	0	0	23	100	23
6	1994-95	0	0	146	100	146	1993-94	0	0	23	100	23

Table 2.3. Retention Rates of P1 and P1-NP Students Who Were in Kindergarten in 1988-89

Grade	P1						P1-NP					
	School Year	Retain N	%	Promote N	%	Total N	School Year	Retain N	%	Promote N	%	Total N
5	1994-95	0	0	178	100	178	1993-94	0	0	43	100	43

Special Education Placement

This section compares P1 students' special education placements in one year with P1-NP students in the previous year. The first row of the figures in Table 2.4 presents the number of students who have been placed into special education in school year 1992-93 for P1 and in year 1991-92 for P1-NP students, when they both were in the 5th grade. The results show that about thirty percent of the P1 students (30.8%) were placed into the special education program in comparison of 25% of the P1-NP students. The percentages remain consistent across two additional years. The three-year average percentage for the special education placement of the P1 group (29.0%) is very similar to the percentage for the P1-NP (27.5%).

The results of similar analysis for three other pairs of subjects from different kindergarten cohorts are displayed in Table 2.5 through 2.7. All results consistently show that, on average, more P1 students (20.8%, 16.0% and 15.7%) have been placed in the special education program than the comparison P1-NP students (12.4%, 4.4% and 1.6%, respectively) across four examining years. We also found that the percentage of the special education students is higher for students in the middle school than for students in the early elementary grades.

In summary, students who have been through the additional year of pre-first were more likely to be placed in special education than similar (P1-NP) students, who did not received any program intervention. This result indicates that the pre-first program itself may have some relationship with an individual being placed in special education in the future.

Table 2.4. Special Education Placement of P1 and P1-NP Students Who Were in Kindergarten in 1986-87

	P1						P1-NP					
Grade	School Year	N of Regular	%	N of Sp.Ed.	%	N of Total	School Year	N of Regular	%	N of Sp.Ed.	%	N of Total
5	1992-93	63	69.2	28	30.8	91	1991-92	18	75.0	6	25.0	24
6	1993-94	63	71.6	25	28.4	88	1992-93	16	69.6	7	30.4	23
7	1994-95	58	72.5	22	27.5	80	1993-94	16	72.7	6	27.3	22
	Average	184	71.0	75	29.0	259		50	72.5	19	27.5	69

Table 2.5. Special Education Placement of P1 and P1-NP Students Who Were in Kindergarten in 1987-88

	P1						P1-NP					
Grade	School Year	N of Regular	%	N of Sp.Ed.	%	N of Total	School Year	N of Regular	%	N of Sp.Ed.	%	N of Total
4	1992-93	136	78.6	37	21.4	173	1991-92	31	88.6	4	11.4	35
5	1993-94	127	79.4	33	20.6	160	1992-93	31	88.6	4	11.4	35
6	1994-95	117	79.6	30	20.4	147	1993-94	30	85.7	5	14.3	35
	Average	380	79.2	100	20.8	480		92	87.6	13	12.4	105

Table 2.6. Special Education Placement of P1 and P1-NP Students Who Were in Kindergarten in 1988-89

	P1						P1-NP					
Grade	School Year	N of Regular	%	N of Sp.Ed.	%	N of Total	School Year	N of Regular	%	N of Sp.Ed.	%	N of Total
3	1992-93	197	84.9	35	15.1	232	1991-92	59	96.7	2	3.3	61
4	1993-94	167	83.9	32	16.1	199	1992-93	58	95.1	3	4.9	61
5	1994-95	146	83.0	30	17.0	176	1993-94	57	95.0	3	5.0	60
	Average	510	84.0	97	16.0	607		174	95.6	8	4.4	182

Table 2.7. Special Education Placement of P1 and P1-NP Students Who Were in Kindergarten in 1989-90

	P1						P1-NP					
Grade	School Year	N of Regular	%	N of Sp.Ed.	%	N of Total	School Year	N of Regular	%	N of Sp.Ed.	%	N of Total
2	1992-93	294	86.2	47	13.8	341	1991-92	22	100	0	0	22
3	1993-94	258	84.6	47	15.4	305	1992-93	20	100	0	0	20
4	1994-95	224	81.5	51	18.5	275	1993-94	18	94.7	1	5.3	19
	Average	776	84.3	145	15.7	921		60	98.4	1	1.6	61

Performance on TAAS

P1 students' 1995 TAAS performance was compared with the same age cohort P1-NP students' 1994 TAAS performance so that both groups were in the same grade when their results were compared. Table 2.9 to 2.13 displays the results for 1995 TAAS performance of the P1 and the 1994 TAAS results of the same age P1-NP students. Results for both the retained and never retained groups show that the P1-NP students outperform their P1 peers on TAAS. For instance, 44.0% and 20.0% of the nonretained P1 students passed the TAAS reading and math on which 100% and 67.7% of the younger P1-NP students passed reading and math. A possible interpretation for this result is that parents of "brighter" students diagnosed as "unready" tended to refuse program, while parents of less able students accepted it.

Table 2.8. The Passing Rates on TAAS of P1 And P1-NP Students Who Were in KG in 1986-87

Group[1]	P1					P1-NP				
	Passing Reading	%	Passing Math	%	Total	Passing Reading	%	Passing Math	%	Total
Retained	1	100	0	0	1	6	46.2	5	38.5	13
Never Retained	11	44.0	5	20.0	25	9	100	6	67.7	9

Note 1. denotes how many times the students have been retained when they take the TAAS

The results in Table 2.10 through 2.13 consistently support that P1-NP students who have never been retained performed better on TAAS than their P1 counterparts. For example, in reading higher percentages of P1-NP students have passed the test across years (i.e. 63.6%, 83.7%, 71.4% and 78.7% for cohort 1987-88 to 1990-91, respectively) than the P1 Group (57.3%, 60.9%, 68.6% and 64.4%).

Table 2.9. The Passing Rates on TAAS of P1 And P1-NP Students Who Were in KG in 1987-88

Group	P1					P1-NP				
	Passing Reading	%	Passing Math	%	Total	Passing Reading	%	Passing Math	%	Total
Retained	4	66.7	3	50.0	6	7	58.3	5	41.7	12
Never Retained	43	57.3	33	44.0	75	14	63.6	11	50	22

Table 2.10. The Passing Rates on TAAS of P1 And P1-NP Students Who Were in KG in 1988-89

Group	P1					P1-NP				
	Passing Reading	%	Passing Math	%	Total	Passing Reading	%	Passing Math	%	Total
Retained	1	50.0	1	50.0	2	12	75.0	11	68.8	16
Never Retained	84	60.9	65	47.1	138	36	83.7	27	62.8	43

Table 2.11. The Passing Rates on TAAS of P1 And P1-NP Students Who Were in KG in 1989-90

Group	P1					P1-NP				
	Passing Reading	%	Passing Math	%	Total	Passing Reading	%	Passing Math	%	Total
Retained	1	50.0	0	0.0	2	1	100	1	100	1
Never Retained	118	68.6	102	59.3	172	10	71.4	7	50.0	14

Table 2.12. The Passing Rates on TAAS of P1 And P1-NP Students Who Were in KG in 1990-91

Group	P1					P1-NP				
	Passing Reading	%	Passing Math	%	Total	Passing Reading	%	Passing Math	%	Total
Retained	0	0.0	0	0.0	1	NA				
Never Retained	170	64.4	159	60.2	264	37	78.7	29	61.7	47

Study III

Comparison Between Pre-First Students with The Same Grade Students After They Leave Pre-First

This study compares the pre-first recommended and placed (P1) students to their classmates in the same-grade who have neither been recommended nor been placed in the pre-first program (PRO-SG). On average, P1 students are roughly one-year older than their PRO comparison group. Students in four different years of the first grade cohorts (school year 1987-88 to 1991-92)were investigated. The 1990-91 cohort was not include due to incomplete data.

Method

Subjects

P1 Kindergarten students who were assessed as unready for the first grade in the spring of their kindergarten year, and subsequently placed in the pre-first grade the next year.

PRO-SG (Same Grade) These students went to kindergarten one year later than their P1 counterparts and were promoted to first grade after kindergarten. They were then in the same grade with their P1 comparison group.

Results

Retention Rates

The four-year retention rates of P1 students and PRO-SG students, both of whom had been in the first grade in school year 1986-87, are displayed in Table 3.1 The results show that there were fewer PRO-SG students retained (1.0, 1.1, 1.7%) than the P1 counterparts (2.4, 3.0, 3.6%) in all three examining years. On average, 1.2% of the PRO-SG students were retained over three years while 2.9% of the P1 students were retained. It is important to note that this analysis was conducted when students were in the fifth grade because the pre-first students were not eligible to be retained again until they were in the fifth grade. Also, to avoid double counting the retentions, only students who received promotion on the end of a year were selected for the next year's retention analysis. This selection strategy enhances the validity of the comparison to a certain degree. For example, among 408 PRO-SG students who promoted to the next grade, 379 of them were in the district and were analyzed in the next year.

The same selection strategy described above for valid subjects was applied to the analyses of data in the next two years. The results (Table 3.2) show that PRO-SG students consistently demonstrate a lower percentage of retention (0.1% vs. 2.4% for the three-year average in 1988-89 cohort) than their P1 counterparts. In conclusion, when all students are eligible to be retained, the PRO-SG group has a lower percentage of retentions than their P1 counterparts. Unexpectedly, an opposite result was found for the 1989-90 first grade students (see Table 3.3). This result may imply that if the program effect is stable between cohorts, many students were falsely identified as "unready" in cohort 1989-90. Because of the influence of the many possible unknown factors described earlier, the results need to be interpreted with great caution.

Table 3.1. Retention Rates of P1 and PRO-SG Students Who Were in the First Grade in 1987-88

Year	PRO-SG					P1				
	Retain N[1]	%	Promote N	%	Total N	Retain N	%	Promote N	%	Total N
1992-93	4	1.0	408	99.0	412	1	2.4	41	97.6	42
1993-94	4	1.1	375	98.9	379	1	3.0	32	97.0	33
1994-95	6	1.7	349	98.3	355	1	3.6	27	96.4	28
Average	14	1.2	1132	98.8	1146	3	2.9	100	97.1	103

Notes: 1. Number of students whom have ever been retained in the indicated year: ~1991-92 denotes multiple years from the year in first grade to 1991-92; Only promoted students were investigated further for the next year's grade status. Average retention rates are calculated using the following formula: Sum(Retain $N_{92\ to\ 95}$) / Sum(Total $N_{92\ to\ 95}$).

Table 3.2. Retention Rates of P1 and PRO-SG Students Who Were in the First Grade in 1988-89

Year	PRO-SG					P1				
	Retain N	%	Promote N	%	Total N	Retain N	%	Promote N	%	Total N
1992-93	3	0.6	478	99.4	481	1	1.1	88	98.9	89
1993-94	1	0.2	414	99.8	415	2	2.3	86	97.7	88
1994-95	5	1.3	385	98.7	390	3	3.8	75	96.2	78
Average	9	0.1	1277	99.9	1286	6	2.4	249	97.6	255

Table 3.3. Retention Rates of P1 and PRO-SG Students Who Were in the First Grade in 1989-90

Year	PRO-SG					P1				
	Retain N	%	Promote N	%	Total N	Retain N	%	Promote N	%	Total N
1993-94	5	1	494	99	499	1	0.6	156	99.4	157
1994-95	1	0.2	446	99.8	447	0	0	146	100	146
Average	6	0.7	940	99.3	946	1	0.2	302	99.8	303

Special Education Placement

An effective pre-first program should reduce the likelihood of the "unready" students being placed in special education in the future. This section compares the percentage of the P1 students placed in special education with more ready and promoted students (PRO-SG). The difference between the two groups should be insignificant if the P1 group has become as "ready" as their PRO-SG peers. Table 3.4 displays the results for placement on special education program of PRO-SG and P1 students who were in the first grade in school year 1986-87. The results show that more P1 students were placed in special education than their PRO-SG peers across four different years. An average of 30% of the P1 students were placed in special education, compared to an average of 8% for the PRO-SG students.

The result showing a higher percentage of P1students entering special education than the PRO-SG students entering special education was consistently found in Table 3.5 through 3.8 for the paired first graders in four different school years from 1987-88 to 1991-92. For the 1987-88 first graders, on average, 28% of the P1 students, compared to around 7% of the PRO-SG students, were placed in the special education (see Table 3.6). The results indicate that there is no positive effect of the pre-first program on preventing P1 students from later placement in special education. A possible interpretation is that many students

identified as "unready" need special education services rather than the transitional instruction. The pre-first program does not appear to eliminate their needs for special education services. In fact, it may actually delay appropriate special education placement for a year or more.

Table 3.4. Special Education Placement of P1 and PRO-SG Students Who Were in the First Grade in 1987-88

Year in SpEd	PRO-SG					P1				
	N of Regular	%	N of Sp.Ed.	%	N of Total	N of Regular	%	N of Sp.Ed.	%	N of Total
1991-92	477	91.6	44	8.4	521	32	68.1	15	31.9	47
1992-93	437	92	38	8	475	30	69.8	13	30.2	43
1993-94	403	92.4	33	7.6	436	25	69.4	11	30.6	36
1994-95	387	92.6	31	7.4	418	21	72.4	8	27.6	29
Average	1704	92.1	146	7.9	1850	108	69.7	47	30.3	155

Table 3.5. Special Education Placement of P1 and PRO-SG Students Who Were in the First Grade in 1988-89

Year in SpEd	PRO-SG					P1				
	N of Regular	%	N of Sp.Ed.	%	N of Total	N of Regular	%	N of Sp.Ed.	%	N of Total
1991-92	572	93	43	7	615	74	71.8	29	28.2	103
1992-93	514	93.1	38	6.9	552	63	69.2	28	30.8	91
1993-94	446	93.1	33	6.9	479	63	71.6	25	28.4	88
1994-95	424	93.6	29	6.4	453	58	72.5	22	27.5	80
Average	1956	93.2	143	6.8	2099	258	71.3	104	28.7	362

Table 3.6. Special Education Placement of P1 and PRO-SG Students Who Were in the First Grade in 1989-90

Year in SpEd	PRO-SG					P1				
	N of Regular	%	N of Sp.Ed.	%	N of Total	N of Regular	%	N of Sp.Ed.	%	N of Total
1991-92	861	93.3	62	6.7	923	155	81.6	35	18.4	190
1992-93	757	92.0	66	8	823	136	78.6	37	21.4	173
1993-94	666	91.7	60	8.3	726	127	79.4	33	20.6	160
1994-95	598	90.9	60	9.1	658	117	79.6	30	20.4	147
Average	2882	92.1	248	7.9	3130	535	79.9	135	20.1	670

Table 3.7. Special Education Placement of P1 and PRO-SG Students Who Were in the First Grade in 1990-91

Year in SpEd	PRO-SG					P1				
	N of Regular	%	N of Sp.Ed.	%	N of Total	N of Regular	%	N of Sp.Ed.	%	N of Total
1991-92	176	91.7	16	8.3	192	242	88.3	32	11.7	274
1992-93	147	89.1	18	10.9	165	197	84.9	35	15.1	232
1993-94	133	89.3	16	10.7	149	167	83.9	32	16.1	199
1994-95	127	88.8	16	11.2	143	146	83.0	30	17.0	176
Average	583	89.8	66	10.2	649	752	84.6	129	14.6	881

Table 3.8. Special Education Placement of P1 and PRO-SG Students Who Were in the First Grade in 1991-92

Year in SpEd	PRO-SG					P1				
	N of Regular	%	N of Sp.Ed.	%	N of Total	N of Regular	%	N of Sp.Ed.	%	N of Total
1991-92	1110	95.4	54	4.6	1164	351	90.5	37	9.5	388
1992-93	944	93.7	64	6.3	1008	294	86.2	47	13.8	341
1993-94	802	92.6	64	7.4	866	258	84.6	47	15.4	305
1994-95	716	90.9	72	9.1	788	224	81.5	51	18.5	275
Average	3572	93.4	254	6.6	3826	1127	86.1	182	13.9	1309

Performance on TAAS

This section of the study compares the percent of P1 students who passed 1995 TAAS with their same-grade PRO-SG peers. Students were grouped by the status of their grade promotion, and the TAAS performance was analyzed separately. The results for promoted and non-promoted for the8788 group indicate that 88.2% and 77.8% of a total of 347 PRO-SG students who were never been retained passed the spring 1995 (8th Grade) Reading and Math TAAS, respectively. On the other hand, only 44% and 20% of a total of 25 similar P1 students passed the 8th-grade Reading and Math TAAS. These results should be interpreted carefully because of the problem of the small sample size in P1 group.

Also, Table 3.9 shows the TAAS performance of students who have been retained once for both groups (P1 and PRO-SG) of students. Among fifty-seven retained PRO-SG students 63.2% of them passed the 7th grade Reading and 42.1% passed Math. Only one P1 student was retained by 1995 who took the 1995 TAAS, and the individual passed the reading test but failed the math. The TAAS results of students who have been retained twice are also shown in the Table for information only. In conclusion, PRO-SG students perform better on both TAAS Reading and Math than the P1 students.

The results for the 1988-89 group are very similar in the way that the PRO-SG students outperform their P1 peers on both the reading and math TAAS tests (see Table 3.10). Higher passing rates were found (reading - 85.1% and math - 82.2%) for the PRO-SG non-retained students than for the matched P1 students (reading - 57.3% and math - 44.0%). This result indicates that the transitional year of instruction does not narrow differences in academic achievement between the P1 students and their year younger but promoted peers. The performance of both groups of retained students is displayed in Table 3.10, but the results should be used with caution because of the extremely small size of the P1 group.

Table 3.9. The Passing Rates for Spring 1995 TAAS of P1 and PRO-SG Students Who Were in the First Grade in 1987-88

Group	PRO-SG					P1				
	N of Passing Reading	%	N of Passing Math	%	N of Total	N of Passing Reading	%	N of Passing Math	%	N of Total
Retain 2	4	66.7	4	66.7	6	0				
Retain 1	36	63.2	24	42.1	57	1	100	0	0	1
Never Retained	306	88.2	270	77.8	347	11	44.0	5	20.0	25

Note 1. denotes how many times the students have been retained when they take the TAAS

Table 3.10. The Passing Rates for Spring 1995 TAAS of P1 and PRO-SG Students Who Were in the First Grade in 1988-89

Group	PRO-SG					P1				
	N of Passing Reading	%	N of Passing Math	%	N of Total	N of Passing Reading	%	N of Passing Math	%	N of Total
Retain 2	1	50.0	1	50.0	2	0		0		0
Retain 1	32	55.2	25	43.1	58	4	66.7	3	50.0	6
Never Retained	325	85.1	314	82.2	382	43	57.3	33	44.0	75

A similar pattern of results were found for three additional age cohorts of subjects who were in the first grade in school year 90, 91, and 92 (displayed on Table 3.11 to 3.13, respectively). Overall, PRO-SG students tend to outperform (i.e., a higher passing rate) their matched P1 counterparts on both TAAS reading and math across groups who took different levels of TAAS. Again, the small sample size problem of both retained groups limits the inference validity of the results.

Table 3.11. The Passing Rates for Spring 1995 TAAS of P1 and PRO-SG Students Who Were in the First Grade in 1989-90

Group	PRO-SG					P1				
	N of Passing Reading	%	N of Passing Math	%	N of Total	N of Passing Reading	%	N of Passing Math	%	N of Total
Retain 2	3	75.0	2	50.0	4	1	100	1	100	1
Retain 1	138	65.1	116	54.7	212	1	50.0	1	50.0	2
Never Retained	368	86.2	314	73.5	427	84	60.9	65	47.1	138

Table 3.12. The Passing Rates for Spring 1995 TAAS of P1 and PRO-SG Students Who Were in the First Grade in 1990-91

Group	PRO-SG					P1				
	N of Passing Reading	%	N of Passing Math	%	N of Total	N of Passing Reading	%	N of Passing Math	%	N of Total
Retain 1	28	52.8	27	50.9	53	1	50	0	0	2
Never Retained	78	83.9	70	75.3	93	118	68.6	102	59.3	172

Table 3.13. The Passing Rates for Spring 1995 TAAS of P1 and PRO-SG Students Who Were in the First Grade in 1991-92

Group	PRO-SG					P1				
	N of Passing Reading	%	N of Passing Math	%	N of Total	N of Passing Reading	%	N of Passing Math	%	N of Total
Retain 1	45	47.4	34	35.8	95	0	0	0	0	1
Never Retained	468	72.9	447	69.6	642	170	64.4	159	60.2	264

Unconfounding Pre-first Program Effects and Age

Receiving an additional year of instruction after kindergarten makes P1 students on average one year older than their PRO-SG peers in the same grade. Any differences between these groups on student outcomes are therefore attributable to either program or age. To partial out the variation of students outcome resulting from age differences, we selected P1 students who were born in summer (July~August) and PRO-SG students born in early fall (September~October). This sampling strategy shortens the age difference between two groups and limits the impact of age difference to a certain degree.

The TAAS performance for these two groups of students with similar age from five different cohorts are displayed in Table 3.14. It is shown that PRO-SG students performed better on 1995 TAAS than their similar-age P1 peers across all grades. For instance, for the first graders in 1992, who were in the 4th grade in 1995, the passing rates are reading-73.9%, and math-73.9% compared to reading-67.5% and math-65.8% for P1 students.

Table 3.14. The Spring 1995 TAAS Passing Rates of The P1 and PRO-SG Students with Similar Age

Cohort in the 1st G.	Grade level when tested in 95	PRO-SG(Sep~Oct)					P1(July~Aug)				
		N of Passing Reading	%	N of Passing Math	%	N of Total	N of Passing Reading	%	N of Passing Math	%	N of Total
1987-88	8th Grade	64	91.4	57	81.4	70	6	75.0	3	37.5	8
1988-89	7th Grade	32	88.9	30	83.3	36	16	69.6	12	52.2	23
1989-90	6th Grade	82	89.1	70	76.1	92	40	64.5	33	53.2	62
1990-91	5th Grade	22	95.7	20	87.0	23	56	72.7	49	63.6	77
1991-92	4th Grade	99	73.9	99	73.9	134	81	67.5	79	65.8	120

Study IV

Comparison Between Pre-first Refusers and Students Promoted Directly to the First Grade

This study compares the P1 eligible students who refused the program (P1-NP) to their same-age promoted peers (PRO-SA). The P1-NP group of students was assessed as less "ready" for the first grade at the end of their kindergarten year than their same age/same grade promoted peers. A significantly better performance of the PRO-SA group is expected which can be attributed to the initially high "readiness" with all other conditions equal. If P1-NP students perform equally well as the PRO-SA students, however, it may indicate that they may have been misidentified for pre-first.

Method

Subjects

P1-NP — These students were recommended for pre-first, but refused the P1 placement and were advanced to the first grade directly. They were in the kindergarten in the same year as their PRO-SA comparison group.

PRO-SA — (From the Same-Age Cohort) These students went to kindergarten with their respective P1-NP peers, but were not recommended for placement to the pre-first program. They advanced to the first grade with their P1-NP peers. Therefore, these two groups of students are similar in age.

Results

Retention Rates

As described in the section above, P1-NP basically represents students assessed as "unready" for the first grade. Compared to their PRO-SA peers, they are not as prepared to handle the more difficult curriculum and instruction in the first grade. The purpose of this analysis is to investigate whether the discrepancy between these two groups of students change after years without a specific program intervention.

The advantage of comparing P1-NP with PRO-SA students is that neither group has been retained, so that they are all about the same age and eligible for retention right after kindergarten. Table 4.1 shows that more P1-NP students were retained than the PRO-SA students. The average retention rate is 5.0% for the PRO-SA group compared to 25.5% for the P1-NP students. A significantly higher retention rate occured in the elementary grades than in the middle school for both PRO-SA (13.4%) and P1-NP (54.2%) students. The higher percentage of retention of P1-NP students than the PRO-SA group probably reflects the existence of initial differences between these two groups while they were in kindergarten.

A similar pattern of results have been found for three other cohort groups. P1-NP students tend to be retained more than their PRO-SA peers. Our results also show, however, that most of the P1-NP students were retained in the first grade (see Table 4.4). Once they passed the first grade, very few of them were retained. On the other hand, the retention of PRO-SA students was spread very evenly across grades. For instance, the result of the 1988-89 group shows that an average of 11.5% of the P1-NP students were retained, mostly in the first examination period (34.3%), compared with 4.7% of the PRO-SA students. None of the P1-NP students were retained in the following years, while a certain number of PRO-SA students were still retained.

Table 4.1. Retention Rates of PRO-SA and P1-NP Students Who Were in The First Grade in 1987-88

Year	PRO-SA					P1-NP				
	Retain N[1]	%	Promote N	%	Total N	Retain N	%	Promote N	%	Total N
~1991-92(5)	70	13.4	451	86.6	521	13	54.2	11	45.8	24
1992-93 (6)	4	1.0	408	99.0	412	0	0	9	100	9
1993-94 (7)	4	1.1	375	98.9	379	0	0	9	100	9
1994-95 (8)	6	1.7	349	98.3	355	0	0	9	100	9
Average	84	5.0	1583	95.0	1667	13	25.5	38	74.5	51

Notes: 1. Number of students whom have ever been retained in the indicated year; ~1991-92 denotes multiple years from the year in first grade to 1991-92; () denotes the grade level.

Table 4.2. Retention Rates of PRO-SA and P1-NP Students Who Were in The First Grade in 1988-89

Year	PRO-SA					P1-NP				
	Retain N[1]	%	Promote N	%	Total N	Retain N	%	Promote N	%	Total N
~1991-92(4)	80	13.0	535	87.0	615	12	34.3	23	65.7	35
1992-93 (5)	3	0.6	478	99.4	481	0	0	23	100	23
1993-94 (6)	1	0.2	414	99.8	415	0	0	23	100	23
1994-95 (7)	5	1.3	385	98.7	390	0	0	23	100	23
Average[2]	89	4.7	1812	95.3	1901	12	11.5	92	88.5	104

Table 4.3. Retention Rates of PRO-SA and P1-NP Students Who Were in The First Grade in 1989-90

Year	PRO-SA					P1-NP				
	Retain N[1]	%	Promote N	%	Total N	Retain N	%	Promote N	%	Total N
~1991-92 (2)						17	27.9	44	72.1	61
1992-93 (3)	5	0.9	561	99.1	566	0	0	44	100	44
1993-94 (4)	5	1	494	99	499	0	0	43	100	43
1994-95 (5)	1	0.2	446	99.8	447	0	0	43	100	43
Average	11	1	1501	99	1512	17	8.9	174	91.1	191

Table 4.4. Retention Rates of PRO-SA and P1-NP Students Who Were in The First Grade in 1991-92

Year	PRO-SA					P1-NP				
	Retain N[1]	%	Promote N	%	Total N	Retain N	%	Promote N	%	Total N
1991-92(1)	0	0.0	1164	100	1164	0	0	65	100	65
1992-93(2)	107	10.6	900	89.4	1007	16	25.0	48	75.0	64
1993-94(3)	18	2.3	750	97.7	768	1	2.1	47	97.9	48
1994-95(4)	13	1.9	671	98.1	684	0	0.0	47	100	47
Average	138	3.8	3485	96.2	3623	17	7.6	207	92.4	224

Special Education Placement

The results for the special education placement show that P1-NP students are less successful in avoiding special education placement than the PRO-SA students in some years and more successful in some other years. For instance, in 1987-88 more P1-NP students (25.5%) have been placed in special education program than their PRO-SA peers (7.9%) (see Table 4.5). This is also true for the 1988-89 students, where we found 12.1% P1-NP students selected in special education against 6.8% PRO-SA students (See Table 4.6).

In the subsequent three cohorts, however, a smaller percentage of the P1-NP students were placed in special education than the PRO-SA students. For instance, Table 4.7 shows that 7.9% of the PRO-SA students were in special education but only 5.3% of the P1-NP students were in special education program for that particular cohort of students. The result for the first graders in school year 1990-91 (Table 4.8) need to be interpreted carefully because of the extremely small number of students. In the result for the first graders in 1991-92 (Table 4.9), the percentage of the P1-NP students (3.5%) placed in special education is almost as half of the PRO-SA students (6.6%).

Table 4.5. Special Education Placement of PRO-SA and P1-NP Students Who Were in The First Grade in 1987-88

	PRO-SA					P1-NP				
Year Placed in Spec. Ed.	N of Regular	%	N of Sp.Ed.	%	N of Total	N of Regular	%	N of Sp.Ed.	%	N of Total
1991-92	477	91.6	44	8.4	521	18	75.0	6	25.0	24
1992-93	437	92.0	38	8.0	475	16	69.6	7	30.4	23
1993-94	403	92.4	33	7.6	436	16	72.7	6	27.3	22
1994-95	387	92.6	31	7.4	418	20	80.0	5	20.0	25
Average	1704	92.1	146	7.9	1850	70	74.5	24	25.5	94

Table 4.6. Special Education Placement of PRO-SA and P1-NP Students Who Were in The First Grade in 1988-89

	PRO-SA					P1-NP				
Year Placed in Spec. Ed.	N of Regular	%	N of Sp.Ed.	%	N of Total	N of Regular	%	N of Sp.Ed.	%	N of Total
1991-92	572	93.0	43	7.0	615	31	88.6	4	11.4	35
1992-93	514	93.1	38	6.9	552	31	88.6	4	11.4	35
1993-94	446	93.1	33	6.9	479	30	85.7	5	14.3	35
1994-95	424	93.6	29	6.4	453	31	88.6	4	11.4	35
Average	1956	93.2	143	6.8	2099	123	87.9	17	12.1	140

Table 4.7. Special Education Placement of PRO-SA and P1-NP Students Who Were in The First Grade in 1989-90

	PRO-SA					P1-NP				
Year Placed in Spec. Ed.	N of Regular	%	N of Sp.Ed.	%	N of Total	N of Regular	%	N of Sp.Ed.	%	N of Total
1991-92	861	93.3	62	6.7	923	59	96.7	2	3.3	61
1992-93	757	92.0	66	8.0	823	58	95.1	3	4.9	61
1993-94	666	91.7	60	8.3	726	57	95.0	3	5.0	60
1994-95	598	90.9	60	9.1	658	56	91.8	5	8.2	61
Average	2882	92.1	248	7.9	3130	230	94.7	13	5.3	243

Table 4.8. Special Education Placement of PRO-SA and P1-NP Students Who Were in The First Grade in 1990-91

	PRO-SA					P1-NP				
Year Placed in Spec. Ed.	N of Regular	%	N of Sp.Ed.	%	N of Total	N of Regular	%	N of Sp.Ed.	%	N of Total
1991-92	176	91.7	16	8.3	192	22	100	0	0.0	22
1992-93	147	89.1	18	10.9	165	20	100	0	0.0	20
1993-94	133	89.3	16	10.7	149	18	94.7	1	5.3	19
1994-95	127	88.8	16	11.2	143	18	94.7	1	5.3	19
Average	583	89.8	66	10.2	649	78	97.5	2	2.5	80

Table 4.9. Special Education Placement of PRO-SA and P1-NP Students Who Were in The First Grade in 1991-92

	PRO-SA					P1-NP				
Year Placed in Spec. Ed.	N of Regular	%	N of Sp.Ed.	%	N of Total	N of Regular	%	N of Sp.Ed.	%	N of Total
1991-92	1110	95.4	54	4.6	1164	63	96.9	2	3.1	65
1992-93	944	93.7	64	6.3	1008	62	96.9	2	3.1	64
1993-94	802	92.6	64	7.4	866	61	95.3	3	4.7	64
1994-95	716	90.9	72	9.1	788	62	96.9	2	3.1	64
Average	3572	93.4	254	6.6	3826	248	96.5	9	3.5	257

Performance on TAAS

The results for students performance on the 1995 TAAS were compared between PRO-SA and P1-NP students. Students who were in the first grade in different cohorts were in different grade level when they took the 1995 TAAS. The results show that for both PRO-SA and P1-NP students who have never been retained, PRO-SA students tend to perform better than their P1-NP counterparts across different cohorts (except the 1991-92 cohort). For example, the results in Table 4.10 show that 306 out of a total of 347 PRO-SA students who were never retained after first grade (and were in 8th grade in 1995) passed TAAS reading (i.e. 88.2% passing) compared to 10 out of a total of 12 P1-NP students. The passing rates on

TAAS math for both groups are lower than their rates for reading. PRO-SA students also did better than their P1-NP peers on the reading test. For instance, 77.8% of the PRO-SA students in Table 4.10 passed the eighth grade TAAS, compared with 58.3% of the P1-NP students.

The TAAS performance for the retained students from both groups show mixed results. PRO-SA retained students did better on some tests than the P1-NP students but not on all of the tests. For example, a higher percentage of PRO-SA retained students passed the reading test (63.2%) than the P1-NP retained students (54.5%) did. But the same group of P1-NP students did better on math (54.5% passing) than the PRO-SA students (42.1% passing).

Table 4.11 to 4.13 present similar results for TAAS performance in three other cohorts. The results for the last cohort (1991-92) shows that P1-NP never-retained students did a little better on reading (83.3%) than the PRO-SA students (72.9%). Their performance on TAAS math is similar.

Table 4.10. The Passing Rates of Spring 1995 TAAS of PRO-SA & P1-NP Who Were in The First Grade in 1987-88

	PRO-SA					P1-NP				
Group[1]	N of Passing Reading	%	N of Passing Math	%	N of Total	N of Passing Reading	%	N of Passing Math	%	N of Total
Retain 1	36	63.2	24	42.1	57	6	54.5	6	54.5	11
Never Retained	306	88.2	270	77.8	347	10	83.3	7	58.3	12

Note 1. denotes how many times the students have been retained when they take the Spring 95 TAAS

Table 4.11. The Passing Rates of Spring 95 TAAS of PRO-SA & P1-NP Who Were in The First Grade in 1988-89

	PRO-SA					P1-NP				
Group	N of Passing Reading	%	N of Passing Math	%	N of Total	N of Passing Reading	%	N of Passing Math	%	N of Total
Retain 1	32	55.2	25	43.1	58	6	50.0	6	50.0	12
Never Retained	325	85.1	314	82.2	382	17	77.3	16	72.7	22

Table 4.12. The Passing Rates of Spring 95 TAAS of PRO-SA & P1-NP Who Were in The First Grade in 1989-90

	PRO-SA					P1-NP				
Group	N of Passing Reading	%	N of Passing Math	%	N of Total	N of Passing Reading	%	N of Passing Math	%	N of Total
Retain 1	138	65.1	116	54.7	212	11	68.8	8	50.0	16
Never Retained	368	86.2	314	73.5	427	30	73.2	22	53.7	41

Table 4.13. The Passing Rates of Spring 95 TAAS of PRO-SA & P1-NP Who Were in The First Grade in 1990-91

Group	PRO-SA					P1-NP				
	N of Passing Reading	%	N of Passing Math	%	N of Total	N of Passing Reading	%	N of Passing Math	%	N of Total
Retain 1	28	52.8	27	50.9	53	3	60.0	3	60.0	5
Never Retained	78	83.9	70	75.3	93	11	78.6	9	64.3	14

Table 4.14. The Passing Rates of Spring 95 TAAS of PRO-SA & P1-NP Who Were in The First Grade in 1991-92

Group	PRO-SA					P1-NP				
	N of Passing Reading	%	N of Passing Math	%	N of Total	N of Passing Reading	%	N of Passing Math	%	N of Total
Retain 1	45	47.4	34	35.8	95	13	81.3	10	62.5	16
Never Retained	468	72.9	447	69.6	642	40	83.3	33	68.8	48

Conclusion

The findings from the pre-first evaluation studies reported here do NOT support the assumption that the program is effective because:

- With and without the program intervention, pre-first recommended students did NOT achieve as well as their non-recommended peers did in terms of retention, special education placement, and TAAS scores.
- Receiving the additional year of instruction did not help students perform any better than their peers who were assessed as having similar readiness but did not enter the pre-first program.
- More pre-first recommended students than expected received special education services in later years. This finding indicates either the criteria in the pre-first selection process select similar students, possibly delaying delivery of appropriate special education services.

Discussion

To validly compare the retention between pre-first students with the other two study samples is extremely difficult because of the intervention of the state policy which restricts schools from retaining an individual more than once between K to 4th and between 5th to 8th grade. Comparing retention of the pre-first students with other two groups in early elementary grade become invalid because no pre-first students will be retained in this period. Investigating the retention after students went to the fourth grade involves another challenge -- many students have moved out of the school district which makes the small target group become even smaller. The percentage used to demonstrate the retention rates is not a stable index when the sample size is small. For example, Table 3.1 shows that there is one new special education student in the pre-first participated group each year from 1993 to 1995. However, the corresponding percentage increases from 3.0% to 3.6% because the total sample shrinks from 42 to 28 students. In this

case, a higher percentage of retention does not necessary reflect a program effect, but higher mobility across years. Therefore, all results in this study should be interpreted carefully.

Some findings indicate that there is a need for reviewing the pre-first selection process. Throughout this study, we consistently found that a higher than district average number of pre-first recommended students were eventually placed in special education. We must ask whether these students need special education services in the first place, rather than pre-first. Do the schools recommend students to pre-first because of the district practices discouraging special education referral of kindergartners and first graders? Is there an alternative short of the extra-year transition/retention in pre-first or the long-term intervention of special education that would more effectively address the needs of these children? Can the one-year transitional instruction transform students from "unready" to "talented", or are some bright youngsters misidentified in the first place because of their "atypical behaviors"?

This study finds that students who were assessed as "unready" and accepted the pre-first placement perform less well later on in school than their similar peers who refused the program. In other words, the pre-first program may actually have some negative effects. In the absence of significant positive findings for pre-first, we encourage the District to study and implement more effective strategies for meeting the needs of these students. Current research suggests a number of possible alternatives to pre-first, and early elementary grade retention, in general, such as full-day kindergarten, which the Board has already adopted on a pilot basis, full-day pre-kindergarten, extended-day and extended-year programs, teacher nesting (or looping), and multi-grade/multi-age primary classrooms. This list is not exhaustive, and it is offered as merely illustrative of possible alternative.

Appendix I

Figure 1. How Do The P1 Students Compare With The P1-NP Students (Study II)

Cohort	Group	8788	8889	8990	9091	9192	9293	9394	949
	PRO	1	2	3	4	5	6	7	8
8687	P1-NP	1	2	3	4	5			8
	P1	P1	1	2	3	4	5		
	PRO		1	2	3	4	5	6	7
8788	P1-NP		1	2	3		5	6	7
	P1		P1	1	2	3		5	
	PRO			1	2	3	4	5	6
8889	P1-NP			1	2		4	5	6
	P1			P1	1	2		4	5
	PRO				1	2	3	4	5
8990	P1-NP				1		3	4	5
	P1				P1	1		3	
	PRO					1	2	3	4
9091	P1-NP								4
	P1					P1			

Figure 2. How Do The P1 Students Compare With The PRO Students (Study III)

Cohort	Group	8788	8889	8990	9091	9192	9293	9394	9495
	PRO	1	2	3	4	5	6	7	8
8687	P1-NP	1	2	3	4	5	6	7	8
	P1	P1	1	2	3		5	6	7
	PRO		1	2	3		5	6	7
8788	P1-NP		1	2	3	4	5	6	7
	P1		P1	1	2				
	PRO			1	2				6
8889	P1-NP			1	2	3	4	5	6
	P1			P1	1			4	5
	PRO				1			4	5
88990	P1-NP				1	2	3	4	5
	P1				P1	1		3	
	PRO					1		3	
9091	P1-NP					1	2	3	4
	P1					P1	1	2	3

Figure 3. How Do The PRO Students Compare With The P1-NP Students (Study IV)

Cohort	Group	8788	8889	8990	9091	9192	9293	9394	9495
	PRO	1	2	3	4	5	6	7	8
8687	P1-NP	1	2	3	4	5	6	7	8
	P1	P1	1	2	3	4	5	6	7
	PRO		1	2	3		5	6	
8788	P1-NP		1	2	3		5	6	
	P1		P1	1	2	3	4	5	6
	PRO			1	2		4		
8889	P1-NP			1	2		4		
	P1			P1	1	2	3	4	5
	PRO				1	2	3		5
8990	P1-NP				1	2	3		5
	P1				P1	1	2	3	4
	PRO					1		3	4
9091	P1-NP					1		3	4
	P1					P1	1	2	3

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