
Saint Paul Public Schools Excel Program

**Evaluation Report
2002**

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Overview of the Project

Superintendent Patricia Harvey and the Board of Education have set Saint Paul Public Schools on a course to provide a world-class education for all students. A major district policy initiative to support this goal was the bold step of ending social promotion, the practice of passing students on to the next grade regardless of whether they've mastered their work. In fall 2001, the Saint Paul Public Schools launched the Excel program – currently a one-of-a-kind initiative in Minnesota schools – as an alternative to merely retaining students in the same classroom and program in which they did not succeed the first time.

The Saint Paul Public Schools' promotion policy and the Excel program are based on the best expertise and research available in their community and across the nation. The district carefully considered the lessons learned by other districts that have ended social promotion. Unlike those districts, Saint Paul:

- Makes decisions about promotion using multiple measures rather than a single test score,
- Is focusing during the first years of implementation on a limited number of key grades – three, five, and eight, and, most important, and
- Offers alternative learning opportunities to students who are not promoted rather than merely retaining them in the same grade.

According to Superintendent Harvey, “This is much more than a remedial program. It’s really an enrichment program to get these children on the fast track to catch up with their peers.” The Excel program is an intensive 15-month experience for students who have completed grades 3, 5, and 8 but have not met the requirements for promotion to the next grade. Excel is designed to provide these students with specific help to enable them to rejoin their peers the next fall.

Starting in 2001, students who completed the requirement of at least 80 hours of the 2001 summer school started the 2001-02 school year as “3.5, 5.5, or 8.5” students instead of fourth-, sixth-, and ninth-graders. As Excel students, they were also required to attend the 2002 summer school. Out of approximately 800 students identified as not having met requirements for promotion in spring 2001, nearly 550 students joined the Excel Program and were in “half grades” during the 2001-02 school year.

Key features of the districtwide Excel program include:

- A written plan for students identifying specific ways to help them improve academically based on their strengths and interests;
- Specially trained Excel teachers who work closely with students and families to ensure success; and
- Specific instructional strategies in reading, writing, and math that have been proven successful with other students around the country.

At the school level, Excel has been handled differently, depending on the number of students. Regardless of school assignment, however, Excel students spent at least 3 ½ hours a day in smaller classes for accelerated reading, writing, and math programs.

In the sections that follow, we summarize the current implementation status of the Excel program, the characteristics of students who participated in 2001-02, and present findings regarding the effects of the Excel experience on student performance. The final section summarizes what has been learned based on one year of Excel program implementation.

Implementation Status of Key Components

The Excel program reflects the Saint Paul School District's deep commitment to provide a strong education for all students. Saint Paul understands that if students do not master the basic skills for success while they are in school, they will be doomed to a life of low wages and limited opportunities. Saint Paul believes that every child in this city can achieve high standards regardless of the challenges they face. The district set out to provide Excel students with a high-quality education by providing a strong framework of instructional strategies and curriculum with clear student outcomes as well as staff development and support.

A central element of Saint Paul's Excel program is its adoption of standards-based curriculum and instruction. The program begins with the adoption of high standards for all students; it attempts to frame a rich, complex curriculum; it requires a strong commitment on the part of both parents and community; it acknowledges the role of effort on the part of students – in fact, it is fundamentally predicated on the notion of effort paying off for students; it defines the role of assessment; and it builds on content-based staff development.

Key elements of the standards-based system adopted by the Excel program during the 2001-02 school year include:

- ◆ *A written plan for students identifying specific ways to help them improve academically based on their strengths and interests*

In fall 2000, teachers began working with families to create written Academic Improvement Plans for all students not on track to meet grade-level expectations. Before being recommended for Excel, a student would have had an Academic Improvement Plan.

Status August 2002: The Academic Improvement Plans (AIP) were refined and continued during students' time in Excel in partnership with their families. Students exiting Excel will also be monitored by an AIP.

- ◆ *Standards for promotion*

In spring 2001, students were identified for the Excel program and were required to attend summer session. Before promoting a student to the next grade level, teachers must have evidence that the students will succeed at that grade level. "Evidence" specifically means:

- Academic progress (both student work and test scores),
- Attendance,
- School success skills such as listening and work habits,
- Teacher observation, and
- Parent input.

Status August 2002: The district used these criteria in spring 2001 and 2002, and will continue to use them for the coming year.

◆ ***Rewarding student effort***

One basic premise of high student performance is that effort will pay off. Students who make an effort should expect to be successful. In the Excel program, students who study hard should achieve academic success.

Status August 2002: Effort is considered participation, effort, and attendance. When teachers observed students having problems with discipline and effort, the student's family and the Excel director or building principal met to determine whether the student would remain in the Excel program or go back to the grade they were in the previous year. Two students at grade 8.5 were placed back in eighth grade and between three and five students at grades 3.5 and 5.5 were placed back in third or fifth grades.

◆ ***Standards-based curriculum and instruction as the foundation***

The value of standards is that they provide a concrete vision of what students are expected to know and be able to do. Excel teachers implementing standards in reading, math, and writing have a vehicle for shaping a clear vision of student learning and for informing students, parents, and the larger school community of what will be required for student success.

Approach to reading and writing. A Balanced Literacy program is built on interaction between reading and writing, and should be 120-140 minutes per day. Reading standards spell out that students read 25 books a year and learn to produce four to six distinct types of writing, depending on the grade level.

A balanced reading program includes components from the teacher reading aloud, to teacher and students sharing reading aloud, to reading in small groups, to independent reading. The reading model used by Excel teachers is the Reader's Workshop. The daily Reader's Workshop begins with a mini-lesson, is followed by students' work time, and ends with a closing sharing time. Mini-lessons may present a specific reading strategy, skill, literary issues, or classroom procedure.

The model used by the Excel program for the daily hour of writing is the Writer's Workshop. The program is built on interaction between reading and writing. During the Writer's Workshop, students must learn about the techniques authors use to make writing effective. Each workshop session opens with a mini-lesson on the craft of writing, includes independent and group work, spirited discussions, and individual student-teacher conferences. Students read extensively in a given literary genre and follow through on the entire process of writing within that genre – jotting down ideas, brainstorming, planning, drafting, revising, editing, and publishing.

Focus on math. Saint Paul uses the Integrated Math approach. The instructional design of Connected Mathematics Project (CMP), used with the grade 3.5 and grade 5.5 Excel students, is devoted to developing student knowledge and understanding of mathematics that is rich in connections – connections among core ideas in mathematics, connections between mathematics and applications in other school subjects, and connections between the planned teaching/learning activities and the special aptitudes and interests of students. The integrated math approach for the grade 8.5 Excel students is the Core Plus curriculum.

Status August 2002: All 2001-02 Excel teachers have been trained in the Reader's Workshop and full implementation is required for fall 2002.

District training in Writer's Workshop is being done in three phases called Levels I, II, and III. Seventy percent of identified Excel teachers attended summer 2002 Level I training for Writer's Workshop and full implementation is expected fall 2002. Level I Writer's Workshop training will be provided during 2002-2003 for the remaining Excel teachers.

Training in Integrated Math is ongoing across the district. Excel teachers have all had some or all of the professional development provided for implementing the Excel math curriculum.

◆ ***Classrooms support the time requirements identified for the Excel program***

The Excel program sets high standards for teachers and students by requiring extensive daily work in the core academic areas:

- At least 80-100 minutes of reading and responding to literature every day,
- At least one hour of Writer's Workshop, and
- At least 90 minutes of math instruction every day.

In addition, students are strongly encouraged to participate in extended learning activities during the school year. The activities could be their school's after school program, community-based programs, or the completion of homework.

Status August 2002: Twenty-five (70%) of 36 Excel teachers reported that they “always” spent 120 minutes each day on reading; another eight (22%) reported they “sometimes” spent 120 minutes.

Seventeen (49%) of the 35 Excel teachers reported that they “always” spent 60 minutes on Writer's Workshop each day; 16 (48%) reported they “sometimes” spent 60 minutes on writing.

Twenty-two (60%) of 36 Excel teachers reported they “always” spent 90 minutes on math each day; 12 (30%) reported they “sometimes” spent 90 minutes.

Beginning fall 2002, the time requirements for reading, writing, and math for Excel students will be mandatory for Excel teachers.

◆ **Professional development**

To help students achieve competence in the core subject of writing as measured by district, state, and national standards, the district provides teachers and staff with the skills and knowledge needed to meet students’ instructional needs. Administration encourages teachers to build on their professional strengths and supports their efforts to do so.

Status August 2002: Extensive professional development was provided Excel teachers starting in summer 2001. Most Excel teachers participated in 18 hours of training in balanced literacy concepts during the summer 2001. All Excel teachers began the school year with a two-day retreat that included training in classroom management strategies. During the school year, all Excel teachers attended an additional 18 hours of training and ongoing support for implementation of Reader’s Workshop.

All Excel teachers were trained in the Edu-test ongoing assessment program, beginning in summer 2001, with continuing support and training during the school year. Edu-test program training will continue through 2003.

◆ **School-level Excel Program design**

Each school chose the design for their Excel program for 2001-02. Design options include:

- Pullout (one or more teachers pull students out of their regular classes for instruction in reading, writing, and mathematics);
- Small group homogeneous;
- Larger group homogeneous with 18-20 in self-contained classrooms; and
- Heterogeneous (inclusion) classroom (e.g. 3-4 Excel and other regular students – pullout could be part of it).

Status August 2002: During school year 2001-02, the senior highs and middle schools used the homogeneous model – small group or larger group, depending on the size of

their program. Six elementary schools (involving about 50 students) used the pullout model, 22 elementary schools (about 164 students) used the heterogeneous (inclusion) model, and nine elementary (about 100 students) used the homogeneous model – small or large group depending on the size of their program.

For fall 2002, schools still have a choice of how to implement the Excel program in their school. They must meet time and curricular requirements. More buildings are shifting to implementation through heterogeneous classrooms, however. Excel staff members are finding that this design helps advance the goal of all students benefiting from the approaches to balanced literacy adopted by the Excel program.

◆ ***Home (or site) visits during summer school by the Excel teacher***

During their first summer in the Excel program, each Excel student has contact with the teacher with whom he/she will be working during the coming school year. These visits by the Excel teachers to the summer school site or to the student's home are designed to encourage the student to make the effort necessary to be successful.

Status August 2002: During summer 2001, Excel teachers were encouraged to have three visits with the students they were assigned for the coming year. Students who were visited by teachers were more likely to attend summer school and be prepared to move into the Excel program fall of 2001. During summer 2002, visits by teachers were reduced to two with each student during the summer.

◆ ***Team meetings with colleagues***

Excel teachers are organized into "clusters" across the city for purposes of coming together several times during the year to share experiences and support one another. One of the teachers in the cluster is designated the team leader and serves as a liaison to the Excel project director.

Status August 2002: Only two team meetings were held during the year 2001-02. Program staff members are currently reviewing whether this component of the Excel program was valuable to teachers and will determine whether to continue team meetings during 2002-03.

◆ ***Assessment***

Teachers provide instruction that meets students' individual needs and provide meaningful feedback. Teachers work to develop and refine effective feedback strategies so that the work which students produce will improve. The following assessment tools are available to teachers:

- EduTest, an assessment program designed for teachers to regularly assess student progress. This assessment program is described by its developer as a comprehensive, on-line, accountability and assessment solution that allows educators to adapt instruction by quickly identifying school, class, and student strengths and needs

relating to state and national standards. By providing tools and reports that are tailored to the needs of teachers and administrators in the school community, this assessment program gives schools and districts the power to implement effective instructional strategies throughout the year.

- Metropolitan Achievement Test (MAT7). The MAT7 is given to students in second grade and higher; results allow comparisons in reading, math, and language performance to that of students across the nation.¹ As a second measure, during the 2001-02 school year, the Excel program administered the MAT8 test to grades 3.5 and 5.5.
- The Minnesota Comprehensive Assessment (MCA) is completed by students in grade 8.5 who have not passed the eighth grade state reading or math tests. The MCAs are administered during spring 2002, but results will not be available from the state until fall 2002.

¹ In this report we focus on the reading and math portions of the MAT7 using NCE (Normal Curve Equivalent) scores. The Normal Curve Equivalent, or NCE, is a way of measuring where a student falls along the normal curve. The numbers on the NCE line run from 1 to 99, similar to percentile ranks, which indicate an individual student's rank, or how many students out of a hundred had a lower score. NCE scores have a major advantage over percentiles in that they can be averaged. That is an important characteristic when studying overall school performance, and in particular, in measuring school-wide gains and losses in student achievement.

In a normally distributed population, if all students were to make exactly one year of progress after one year of instruction, then their NCE scores would remain exactly the same and their NCE gain would be zero, even though their raw scores (i.e. the number of questions they answered correctly) increased. Some students will make more than a year's progress in that time and will have a net gain in the NCE score, which means that those students have learned more, or at least have made more progress in the areas tested, than the general population. Other students, while making progress in their skills, may progress more slowly than the general population and will show a net loss in their NCE ranks. As with many other scales related to the normal curve, the average NCE, by definition, is 50. If all students improve in their performance, the mean, or NCE 50, will represent a higher raw score.

Characteristics of Excel Students

The Excel program is for students who have completed grades 3, 5, and 8 but have not met the requirements for promotion to the next grade. In spring 2002, students were identified by classroom teachers for the Excel program and were required to attend summer session. Before promoting a student to the next grade level, teachers must have evidence that the students will succeed at that grade level. “Evidence” included academic progress (both student work and test scores), attendance, and school success skills such as listening and work habits.

Out of approximately 800 students identified as not having met requirements for promotion, 526 students joined the Excel program and were in “half grades” during 2001-02. Approximately 200 students who did not attend the 2001 summer school were retained in grades 3, 5, or 8. The remaining students withdrew from the Saint Paul schools. During the school year 2001-02, an additional 60 Excel students withdrew; 467 Excel students completed the school year.

Grade Level and Gender

The 467 Excel students were distributed among the three grades with 40% at grade 3.5, 42% at grade 5.5, and 18% at grade 8.5 (Figure 1a). Sixty (60) percent of the Excel students were males with just under 60% at grades 3.5 and 5.5 and just over 70% at grade 8.5 (Figure 1b).

Figure 1a. Grade Level, 2001-02

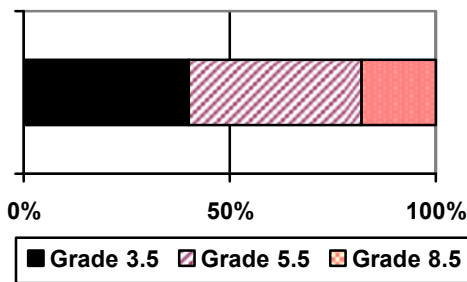
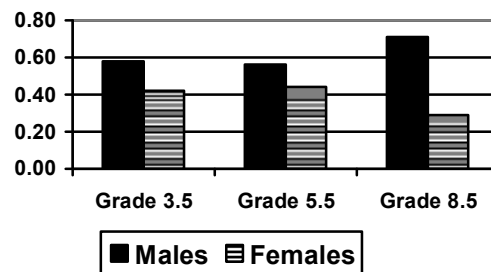


Figure 1b. Gender, 2001-02



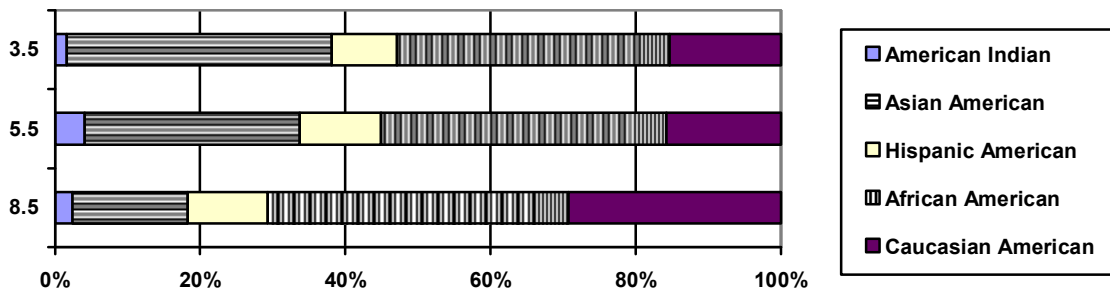
Ethnicity and Race

The ethnic / racial characteristics of Excel students were different from the district as a whole (Table 1). African American students represented a higher proportion of Excel program participants (38% to 42%) as compared to the district population as a whole (25%). Caucasian Americans were under-represented in the Excel program at grades 3.5 and 5.5 (15-16%), but were near equivalent by grade 8.5 (30% of the Excel students compared to 31% of all district students) (Figure 2). Asian American students were slightly over-represented in the Excel program at grade 3.5, but their proportionate representation declined in grades 5.5 and 8.5.

Table 1. Race / Ethnicity of Excel Students, 2001-02

<i>Ethnic group</i>	<i>All district students</i>	<i>All Excel students</i>	<i>Grade 3.5</i>		<i>Grade 5.5</i>		<i>Grade 8.5</i>	
	%	%	N	%	N	%	N	%
American Indian	1.9	2.8	3	1.6	8	4.1	2	2.4
Asian American	33.2	30.0	69	36.5	58	29.6	13	15.9
Hispanic American	8.9	10.3	17	9.0	22	11.2	9	11.0
African American	24.7	39.0	71	37.6	77	39.3	34	41.5
Caucasian American	31.3	18.0	29	15.3	31	15.8	24	29.3

Figure 2. Racial / Ethnic Group Distribution by Excel Grade, 2001-02



English Language Learners

English language learners made up over 40% of the Excel student population in grades 3.5 and 5.5 compared to 31% in the districtwide population (Table 2). At grade 8.5, however, a smaller proportion of the Excel students were English language learners.

Table 2. Excel Students Who Were English Language Learners, 2001-02

	<i>All district students</i>	<i>All Excel students</i>	<i>Grade 3.5</i>		<i>Grade 5.5</i>		<i>Grade 8.5</i>	
	%	%	N	%	N	%	N	%
English Language Learners	31.4	40.0	81	42.9	83	42.3	23	28.0

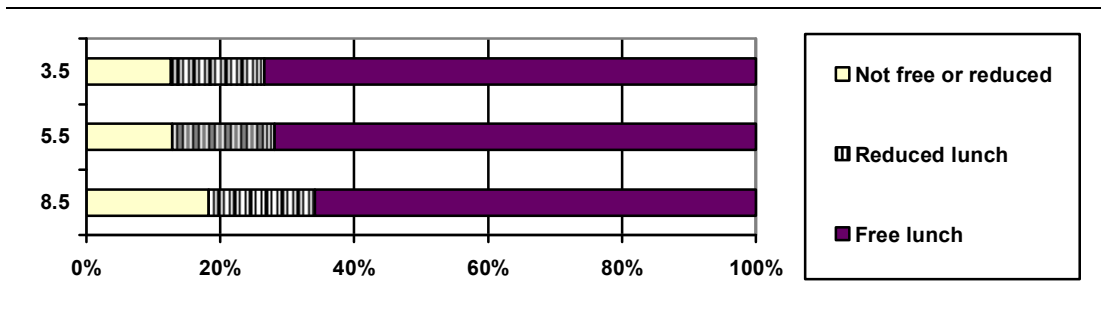
Family Income

Income level of students is measured by whether they qualify for free or reduced-price lunches. Significantly more Excel students qualified for free lunches and reduced-price lunches than the district population in 2001-02 (Table 3 and Figure 3).

Table 3. Excel Student Free or Reduced Price Lunch Eligibility, 2001-02

	<i>All district students</i>	<i>All Excel students</i>	<i>Grade 3.5</i>		<i>Grade 5.5</i>		<i>Grade 8.5</i>	
	%	%	N	%	N	%	N	%
Not free or reduced	31.8	13.7	24	12.7	25	12.8	15	18.3
Reduced lunch	11.5	14.8	26	13.9	30	15.3	13	15.9
Free lunch	56.7	71.5	139	73.5	141	71.9	54	65.9

Figure 3. Excel Student Socio-Economic Status, 2001-02



Achievement of Excel Students

The Excel program represents a bold step by the Saint Paul Public Schools to provide an alternative to students returning to the grade where they had just been unsuccessful. The goal was to provide a fifteen-month enrichment experience to give Excel students the opportunity to rejoin their peers at the end of the program. In spring 2002, students were identified for the Excel program and were required to attend 2001 summer session, participate in the Excel program throughout 2001-02, and attend the 2002 summer session.

Before promoting a student to the next grade level, teachers must have evidence that the students will succeed at that grade level. "Evidence" means:

- Academic progress (both student work and test scores),
- Attendance, and
- School success skills such as listening and work habits.

In this section, we present the results of two standardized tests taken by Excel students to assess how they are doing in meeting their goal of rejoining their peers. These are the Metropolitan Achievement Test 7 (MAT7) and the Metropolitan Achievement Test 8 (MAT8).

The MAT7 is given to students in second grade and higher and compares reading, math, and language performance to that of students across the nation. This report will focus on the reading and math portions of the MAT7. Scores examined for this report are NCE (Normal Curve Equivalent) scores. The Normal Curve Equivalent is a number ranging from 1 to 99.²

Part I compares the performance of Excel students to their grade counterparts in the district as a whole. Part II focuses on changes in performance of Excel students.

² Included in this analysis are those MAT7 test results for Excel students who took the reading tests in both spring 2001 and spring 2002 and / or took the math tests in both spring 2001 and spring 2002. All students in this analysis took the third, fifth, or eighth grade MAT7 reading test, and in 2002, they all took the fourth, sixth, or ninth grade reading test. Included in the MAT8 analysis are those students who completed the tests in September 2001 and July 2002 in grades 3.5 and 5.5. Students in Grade 8.5 completed the Minnesota Comprehensive Assessments; those results will be available in October 2002.

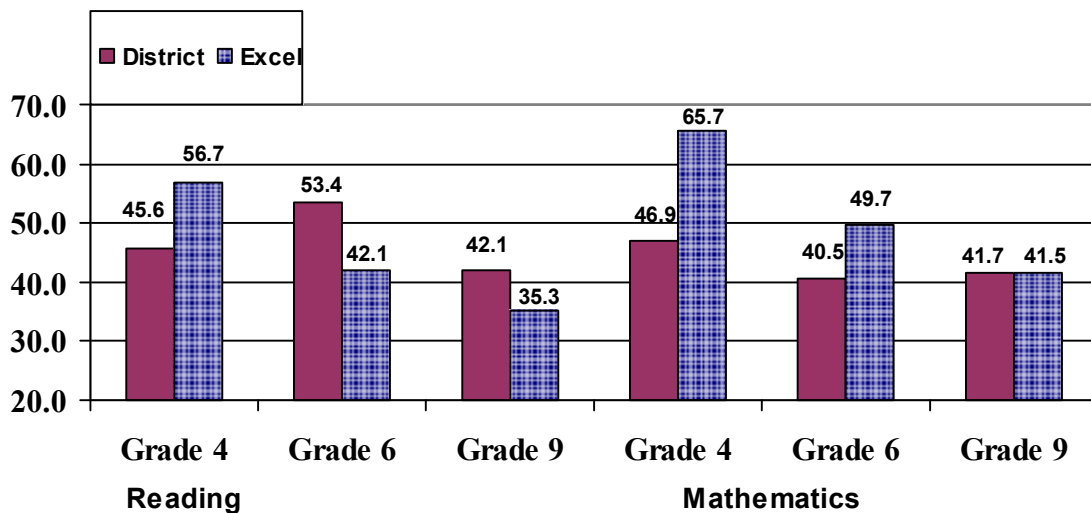
Part I. Excel Students Compared to Grade Counterparts in the District

Normal Curve Equivalent scores represent students' standing compared to their peers nationally. The district's goal for Excel students is that they will make sufficient gains in their performance to rejoin their peers. This analysis compares the proportion of Excel students who made academic gains in reading and math as compared to their grade level peers.

◆ *Gains in reading and math by student grade-level (Figure 4):*

- Excel students in grade 3.5 had a higher percentage making gains in both reading and math than students in grade 4 from across the district.
- Excel students in grade 5.5 had a higher percentage making gains in math but not in reading than students in grade 6 from across the district.
- Excel students in grade 8.5 had the same percentage making gains in math but a lower percentage making gains in reading than students in grade 9 from across the district.

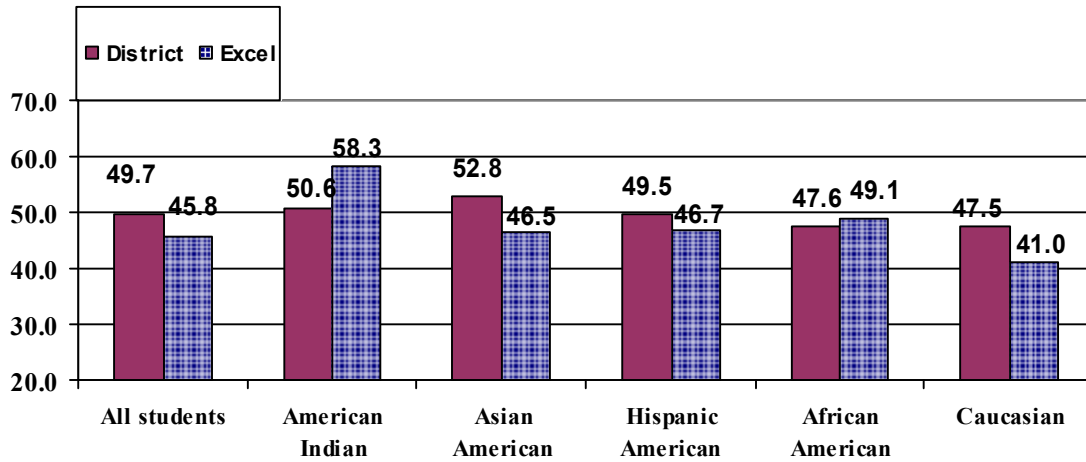
Figure 4. Percent of Students Making Gains in Reading and Math, 2001-02



◆ *Gains in reading overall and by racial / ethnic status of students (Figure 5):*

- Overall, Excel students did not do as well as the district as a whole in terms of gains in reading.
- Looking more closely at the performance of students by race / ethnicity, we see that a higher percentage of American Indian and African American Excel students made gains in reading as compared to the same groups in the district as a whole.

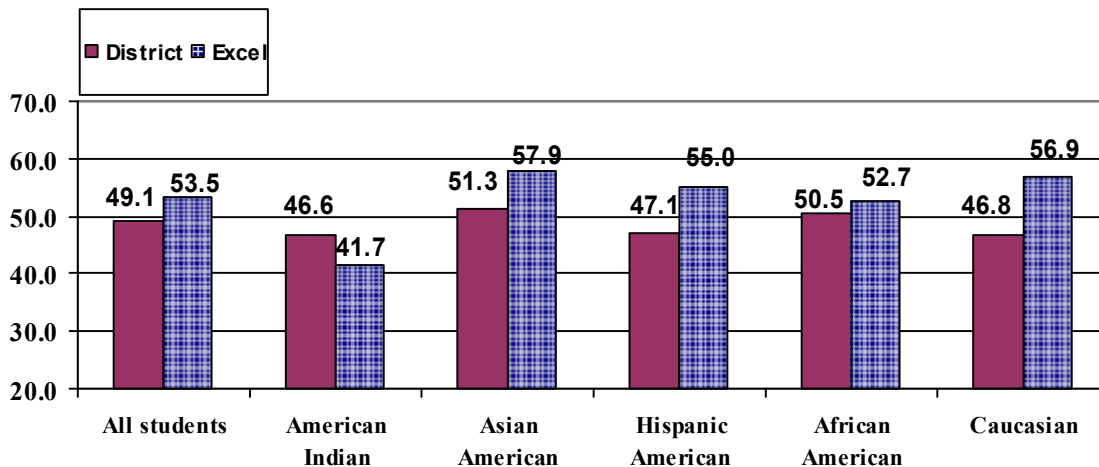
Figure 5. Percent of Students Making Gains in Reading by Racial / Ethnic Group, 2001-02



◆ **Gains in math overall and by racial / ethnic status of students (Figure 6):**

- Excel students did better than the district as a whole in terms of gains in math.
- When comparing the percent of students making gains in math by their ethnic group, all Excel groups but one (American Indian with only 12 students tested) had a higher percentage making gains than the district as a whole.

Figure 6. Percent of Students Making Gains in Math by Racial / Ethnic Group, 2001-02



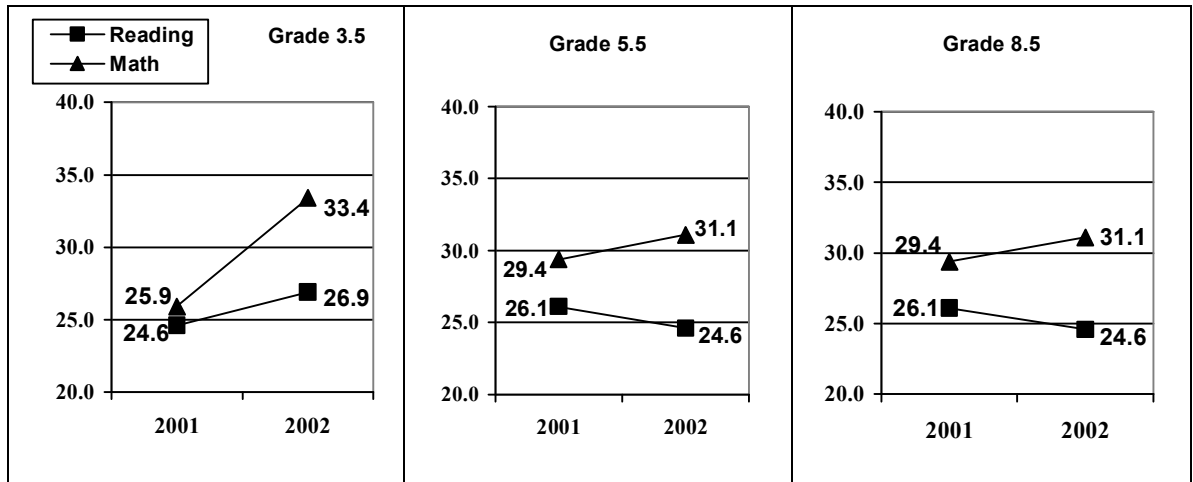
Part II. Findings among Excel Students for 2001-02

These analyses compare the MAT7 NCE scores of Excel students for 2001 and 2002. Students who make more than a year’s progress, compared to their peers nationally, will have a net gain in their NCE scores. Likewise, if they do not progress as fast as their peers, they will show a loss in their NCE ranks. Results from the MAT8 are referred to for corroboration of MAT7 findings. See Appendix A for MAT8 results.

◆ **Gains in reading and math among Excel students on the MAT7 (Figure 7):**

- At grades 3.5, 5.5, and 8.5, Excel students made gains in math. MAT8 results corroborated this finding for grade 3.5, but grade 5.5 MAT8 results show not significant gain or loss.
- Excel students in grade 3.5 made gains in reading, but students in grades 5.5 and 8.5 did not. MAT8 results show gains for grade 3.5 and also grade 5.5 in reading.

Figure 7. Reading and Math Scores (NCE) By Grade Level, 2001-02



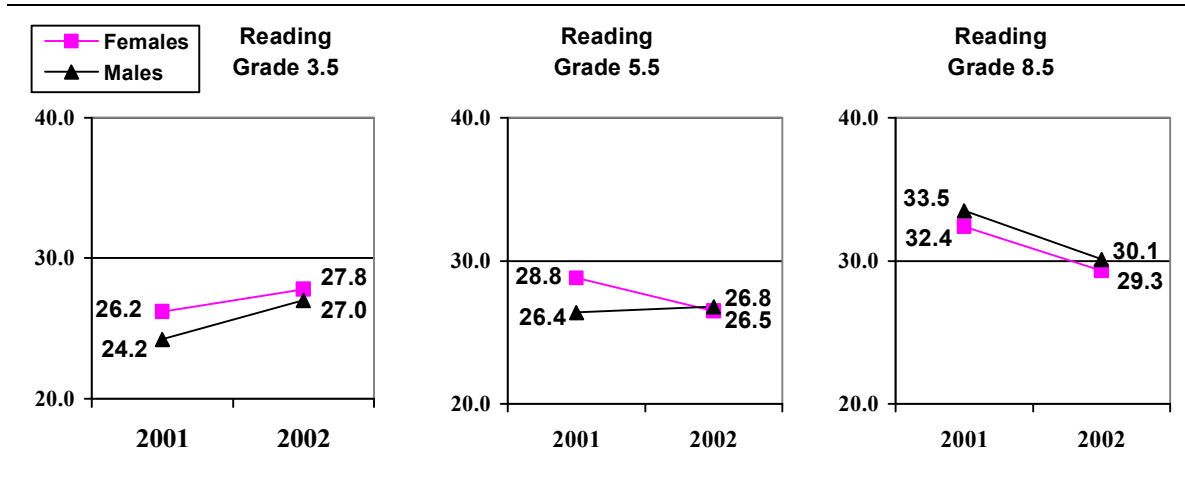
◆ **Gains in reading by females versus males (Figure 8):³**

- At grade 3.5, males made greater gains in reading (2.8 NCEs compared to 1.6 for females).
- At grade 5.5, males scores were stable in reading while the scores of females declined (.1 NCE compared to -2.2).

³ Sixty (60) percent of the Excel students were males with just under 60% at grades 3.5 and 5.5 and just over 70% at grade 8.5. For this analysis, all students took the third, fifth, or eighth grade MAT7 reading test in 2001 and the fourth, sixth, and ninth grade MAT7 reading test in 2002.

- At grade 8.5, the reading scores of both females and males declined (4.1 and 3.4 NCEs, respectively).

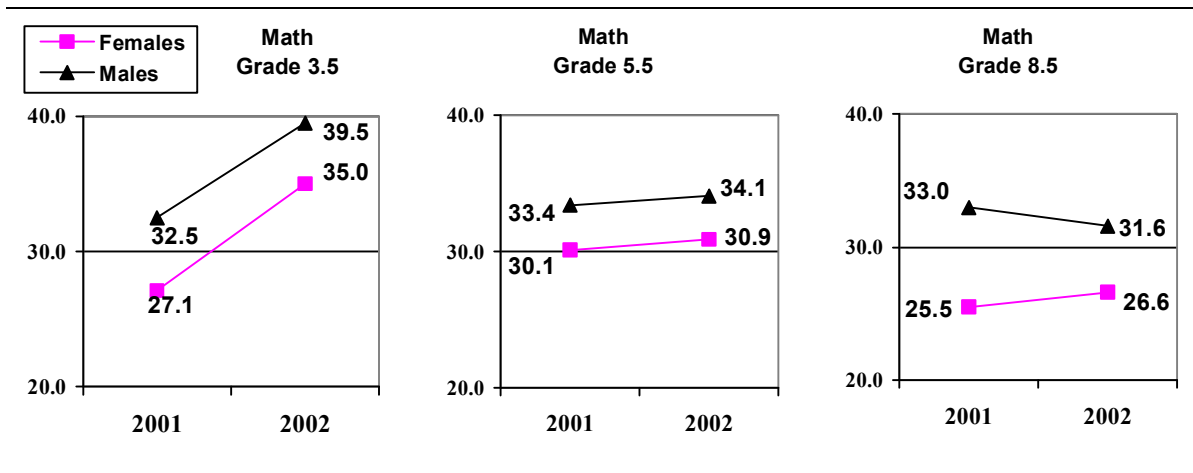
Figure 8. Reading Scores (NCE) by Gender, 2001-02



◆ **Gains in math by females versus males (Figure 9):**⁴

- At grade 3.5, both males and females made large gains in math (7.0 and 7.9 NCEs, respectively).
- Grade 5.5 males and females made gains as well (.7 and .8 NCEs, respectively).
- At grade 8.5, females made gains (1.1 NCE) but the scores of males declined (1.4 NCE).

Figure 9. Math Scores (NCE) by Gender, 2001-02

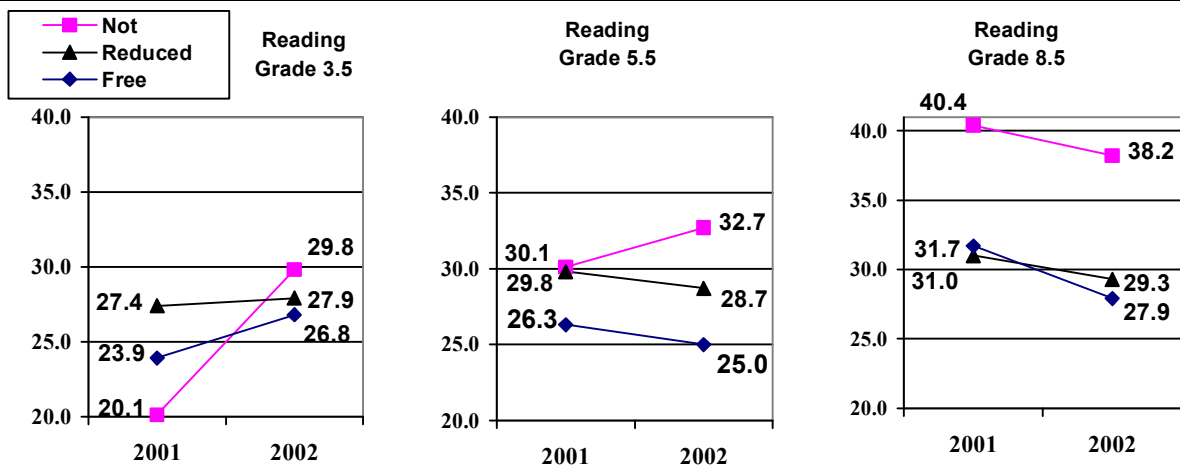


⁴ For this analysis, all students took the third, fifth, or eighth grade MAT7 math test in 2001 and the fourth, sixth, and ninth grade MAT7 math test in 2002.

Gains in reading by family income of Excel students:⁵

- All Excel groups in grade 3.5 made gains, but especially those not qualifying for free or reduced-price lunches.
- In grade 5.5, scores of Excel students who qualify for free or reduced-price lunches declined while those not qualifying gained.
- In grade 8.5, scores for all groups declined, but those not qualifying were considerably higher.

Figure 10. Gains in Reading Scores (NCE) of Excel Students by Family Income, 2001-02



Note: Not = not free or reduced eligible, Reduced = reduced-price lunch, and Free = free lunch.

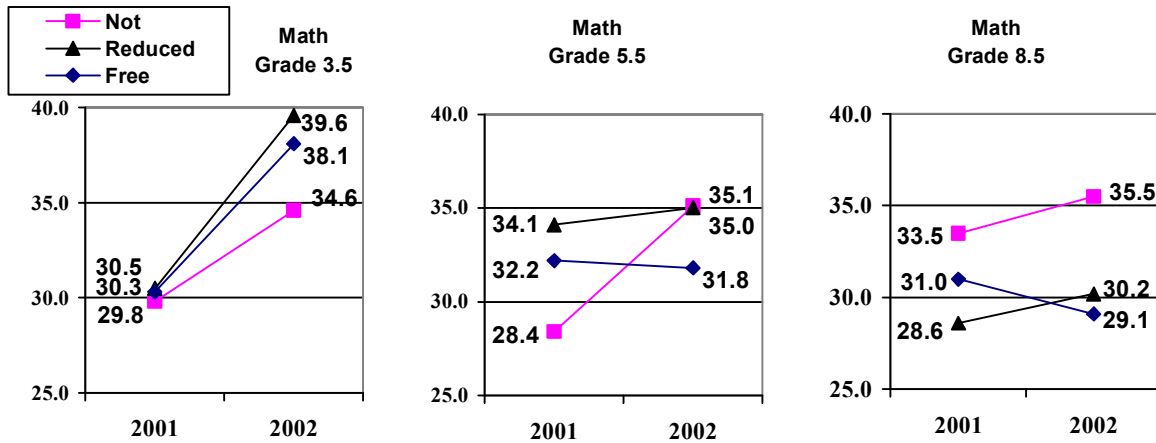
◆ **Gains in math by the family income of Excel students:**

The pattern of achievement by family income is different in mathematics (Figure 11).

- At grade 3.5, the three groups began at somewhat the same place, but those Excel students qualifying for free and reduced-price lunches gained more than those not qualifying.
- At grade 5.5, those Excel students not qualifying started below the other two groups but by the end of the program had gained to the level of those eligible for reduced-price lunches.
- At grade 8.5, both Excel students not qualifying and those qualifying for reduced-price lunches made gains while those qualifying for free lunches declined, and those not qualifying completed the program with the highest scores.

⁵ For this analysis student eligibility for free- or reduced-price lunch was used as the measure of family income.

Figure 11. Gains in Math Scores (NCE) of Excel Students by Family Income, 2001-02

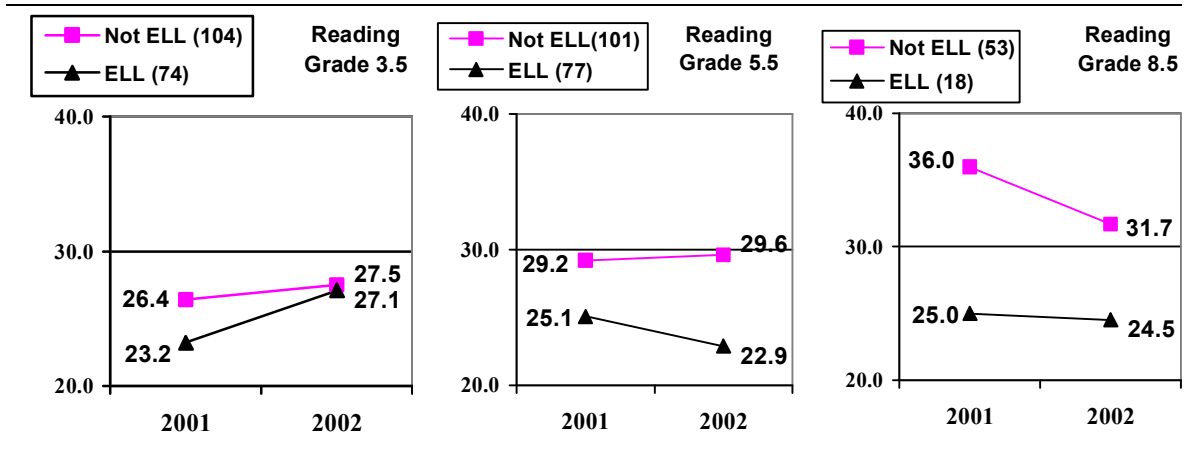


◆ **Gains in reading by ELL status (Figure 12):**⁶

- In grade 3.5, the reading scores of ELL students were slightly lower than other grade 3.5 students by the end of the program; the non-ELL students' scores increased, but the ELL students increased more (1.1 compared to 3.9 NCE's respectively).
- In grade 5.5, ELL students' scores in reading declined while the non-ELL students increased slightly (-2.2 compared to .4 respectively).
- In grade 8.5, ELL students' scores in reading stayed about the same while non-ELL students' scores declined significantly.

⁶ English Language Learners made up over 40% of the Excel student population in grades 3.5 and 5.5 compared to 31% in the districtwide population, but were only 28% of grade 8.5 students.

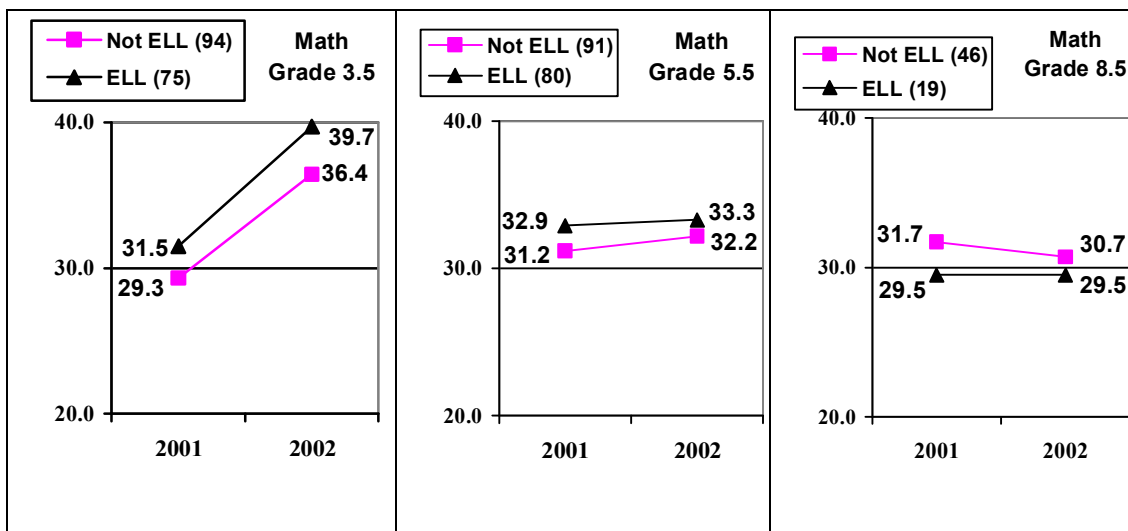
Figure 12. Gains in Reading (NCE) by ELL Status, 2001-02



◆ *Gains in math by ELL status (Figure 13):*

- In grade 3.5, ELL students had math gains at a higher rate than non-ELL students, although the gains of both groups were significant (8.2 and 7.1 NCE's respectively).
- In grade 5.5, ELL students scored higher than non-ELL, although both groups of students made gains.
- At grade 8.5, non-ELL students' scores declined from 2001-2002, while ELL students stayed the same.

Figure 13. Gains in Math (NCE) by ELL Status, 2001-02



◆ **Gains by type of Excel program:** ⁷

During 2001-02, most Excel students experienced an inclusion or homogeneous program (Table 4).

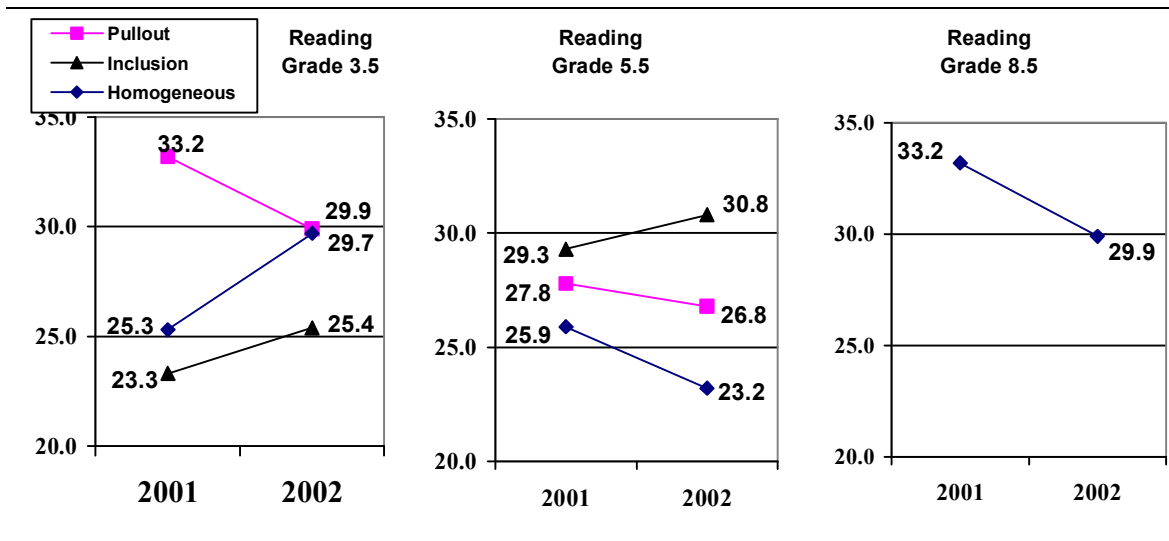
Table 4. Number of Excel Students by Grade Level and Program Type, 2001-02

Type of Program	Grade 3.5	Grade 5.5	Grade 8.5
<i>Pullout</i>	23	23	0
<i>Inclusion</i>	87	64	0
<i>Homogeneous</i>	64	85	71

Reading (Figure 14):

- Excel students in inclusion programs in grades 3.5 and 5.5 showed positive gains in reading.
- Excel students in grades 3.5 and 5.5 who experienced a pullout program showed declines in their reading scores.
- Students in grade 3.5 who experienced a homogenous program showed positive gains in reading, but students in grades 5.5 and 8.5 who experienced a homogenous program showed declines in their reading scores.

Figure 14. Gains in Reading (NCE) by Type of Excel Program, 2001-02

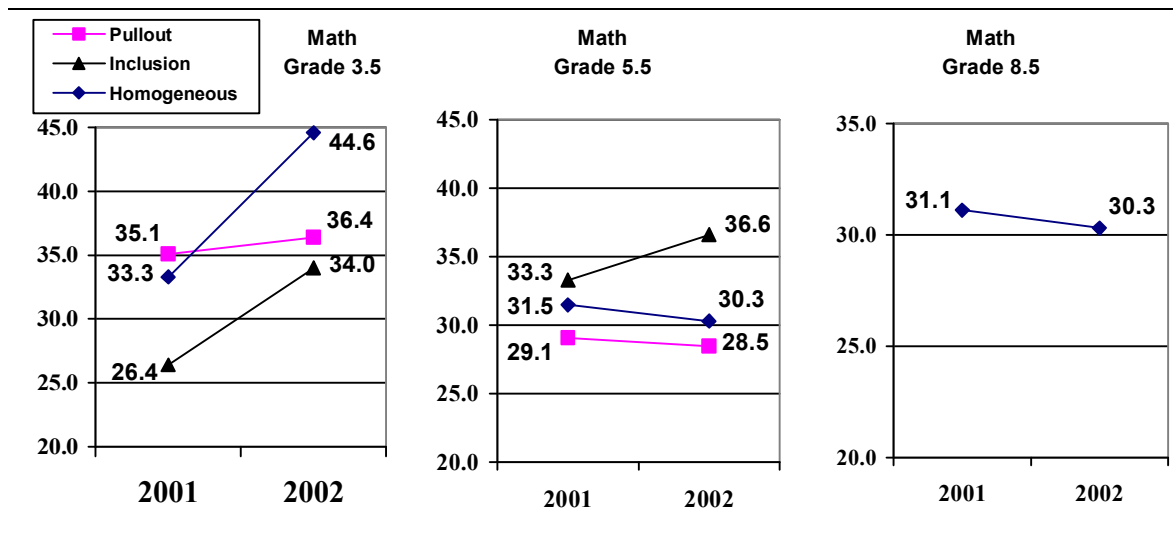


⁷ Each school chose the design for their Excel program for 2001-02. The types of programs included: pullout, small group homogeneous, larger group homogeneous with 18-20 in self-contained classrooms, and heterogeneous classroom (e.g. 3-4 Excel and other regular students - pullout could be part of it).

Math (Figure 15):

- Students in grades 3.5 and 5.5 who experienced an inclusion program showed positive gains in math.
- Students in grades 3.5 who experienced homogenous program showed significant gains in math while students in grades 5.5 and 8.5 had math scores that declined.
- Students in grade 3.5 who experienced a pullout program showed gains in their math scores, though not as much as other types of program, while pullout students in grade 5.5 showed a decline in math.

Figure 15. Gains in Math Scores by Type of Excel Program, 2001-02



The Relationship Between Excel Teacher Participation in Professional Development and Student Performance

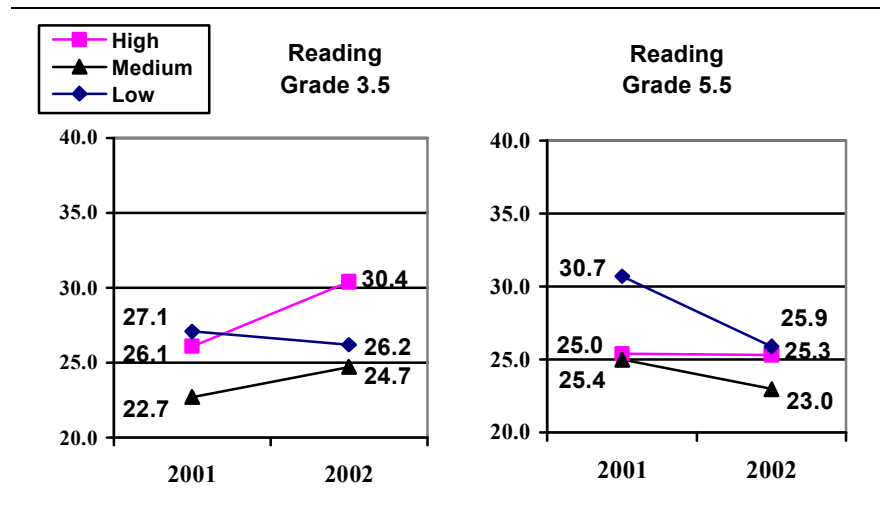
Given that Excel is an enrichment program, Excel teachers were asked to implement a number of features within their classrooms, such as time specification for reading, writing, and math; home visits; and surveying students' perceptions of the program. Consequently, a key component of the Excel program during its first year of implementation involved a variety of opportunities for professional development and support for Excel teachers, such as training in Balanced Literacy and team meetings. The Excel program documented teachers' participation in these opportunities

and observed their level of implementation of the program features.⁸ The analyses that follow focus on assessing Excel student performance as a function of Excel teacher participation.

Levels of participation and reading (Figure 16):

- At grade 3.5, the greatest gains in NCE scores were made by students with high participation teachers.
- At grade 3.5, students with low participation teachers were the only group that did not make gains in their NCE scores.
- Grade 5.5 reading scores declined for students with low and medium participation teachers, while students with high participation teachers did not gain or lose.

Figure 16. Reading Scores by Teachers' Levels of Participation, 2001-02



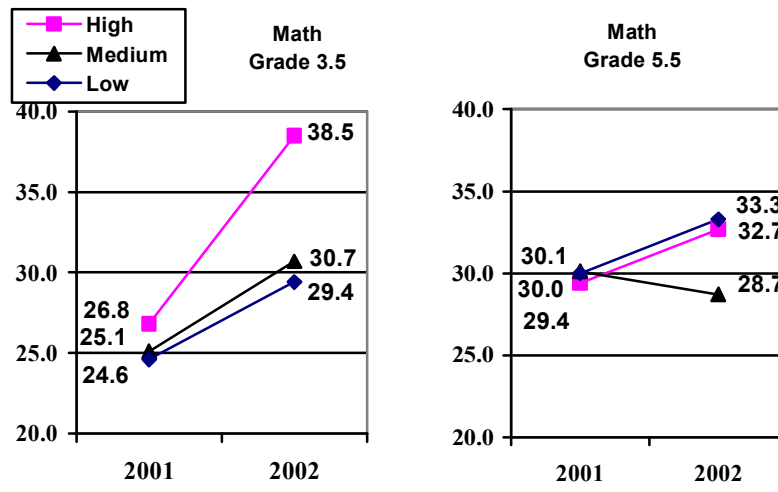
Levels of participation and math (Figure 17):

There was no Excel sponsored math-related professional development during 2001-2002. Based on level of classroom implementation we see that:

- Students in grade 3.5 with high participation teachers show the highest gains in math scores.
- At grade 5.5, there is no meaningful pattern by teachers' level of participation. Students with high and low participation teachers show gains in math scores, while students of medium participation teachers show decline in scores.

⁸ Level of Excel teacher participation was categorized as high, medium, or low based on program records; there were too few teachers at the senior high level to meaningfully categorize level of participation in this manner.

Figure 17. Math Scores by Teachers' Levels of Participation, 2001-02



Conclusions

The end of social promotion in the Saint Paul Public Schools required immediate action to assure that students who had not mastered their work would not end up merely retained in the same classroom and program in which they did not succeed the first time. In this concluding section we highlight a number of key findings related to the Excel program as it ends its first year of implementation.

Key Implementation Findings

- ◆ Out of approximately 800 students identified as not having met requirements for promotion as of spring 2001, nearly 550 students joined the Excel Program and 467 completed the school year in this program. Approximately 200 students who did not attend summer school in 2001 were retained in grades 3, 5, or 8. The remaining students withdrew from the Saint Paul schools sometime during the year.
- ◆ During school year 2001-02, the participating senior high and middle schools used a homogeneous model involving either small group or larger group instruction depending on the size of the program. The participating elementary schools varied in the models used: six used the pullout model, 22 used the heterogeneous (inclusion) model, and nine used the homogeneous model involving small or larger group instruction depending on the size of their program;
- ◆ Excel teachers received extensive, focused, professional development as the program started in summer 2001 and during the 2001-02 school year;
- ◆ The Excel program was predicated on the assumption that students would complete extensive work in the core academic areas on a daily basis; the majority of the Excel teachers reported they “always” spent 120 minutes per day in reading (70% of the teachers reporting) and 90 minutes on math (60% of the teachers reporting); about half of the Excel teachers (49%) reported they “always” spent 60 minutes on Writer’s Workshop each day; the remaining Excel teachers reported they were less consistent in spending the targeted time in these academic areas.

Excel Student Characteristics

Distinguishing characteristics of Excel students include:

- ◆ Most of the Excel students were in grades 3.5 or 5.5, with only 18% in grade 8.5;

- ◆ Slightly more than half of the Excel students were males, although the proportion of male Excel students increased to 70% in grade 8.5;
- ◆ African American students represented a higher proportion of Excel program participants as compared to the district population as a whole, while Caucasian American students were under-represented in grades 3.5 and 5.5 and Asian American students were under-represented in grade 8.5;
- ◆ English language learners and students who qualified for free- or reduced-price lunch based on the income level of their family were significantly over-represented in the Excel program.

Excel Student Achievement Gains as Compared to their Grade Counterparts in the District

The overall goal of Excel is to accelerate the performance of identified students so that they are able to rejoin their peers at the end of the 15-month program. After one-year of implementation we see progress toward this goal, although there was variation across academic areas, grade-levels, and the background characteristics of students.

- ◆ As a group, a slightly larger proportion of Excel students made gains in math as compared to their district peers. At the same time, compared to their peers, a slightly smaller proportion of Excel students made gains in reading;
- ◆ Excel had the greatest effect at the 3.5 grade level: a larger proportion of students in 3.5 made gains in both reading and math than students in grade 4 from across the district;
- ◆ The effects of Excel were mixed for students at grades 5.5, that is, a higher proportion of grade 5.5 students made gains in math than their peers, but this pattern did not hold up for reading;
- ◆ The effects of Excel were neutral to weak at grade 8.5, meaning the proportions of Excel students and their peers making gains in math were about equal while a smaller proportion of Excel students made gains in reading as compared to their peers;
- ◆ The effects of Excel varied for students with different racial / ethnic backgrounds. In terms of math, larger proportions of Asian American, Hispanic American, African American, and Caucasian Excel students made gains as compared to their racial / ethnic peers (although this pattern did not hold up for American Indian Excel students). In terms of reading, higher proportions of American Indian and African American Excel students made gains as compared to their racial / ethnic peers in the district while this pattern of reading gains did not hold up for Asian American, Hispanic American, or Caucasian Excel student groups as compared to their racial / ethnic peers in the district.

Findings among Excel Students

In this report we also focused on the reading and math portions of the MAT7 using NCE (Normal Curve Equivalent) scores in order to assess the degree to which Excel students accelerated their learning in reading and math. The NCE is a way of measuring where a student falls along the normal curve. The numbers on the NCE line run from 1 to 99, similar to percentile ranks, which indicate an individual student's rank, or how many students out of a hundred had a lower score. In a normally distributed population, if all students were to make exactly one year of progress after one year of instruction, then their NCE scores would remain exactly the same and their NCE gain would be zero, even though their raw scores (i.e. the number of questions they answered correctly) increased. Some students will make more than a year's progress in that time and will have a net gain in the NCE score, which means that those students have learned more, or at least have made more progress in the areas tested, than the general population. Other students, while making progress in their skills, may progress more slowly than the general population and will show a net loss in their NCE ranks.

Key findings for Excel students from 2001 to 2002 include:

- ◆ As would be expected, the NCE scores of Excel students in 2001 were low in reading and math. After one year of instruction, we saw that Excel students gained more than one year of instruction in math (although they remained below an NCE of 50 or the midpoint of a normal curve). Similarly, Excel students in grade 3.5 made gains in reading, but students in grades 5.5 and 8.5 lost ground in reading as compared to their national peers;
- ◆ Excel students, by grade level, showed differential gains in reading and math based on their gender, family income level, and status as an English language learner. Key trends that deserve highlighting:

Gender

- Males in grades 3.5 and 5.5 made greater gains in reading than did females, while the NCE scores for both males and females in grade 8.5 indicated they lost further ground as compared to their peers nationally;
- Both males and females in grades 3.5 and 5.5 made gains in math, although the gains in 3.5 were larger; females in grade 8.5 showed gains in math while the NCE score for males declined, meaning males in grade 8.5 did not accelerate their math achievement;

Family income status

- At grades 3.5, Excel students showed accelerated gains in reading and math regardless of the income status of their families (defined as eligibility for free-or reduced-price lunch) with the gains in reading and math being fairly dramatic for students from the lowest income families; the pattern of gains by income status in grades 5.5 and 8.5 were mixed, but overall, there tended to be a positive relationship between accelerated gains in reading or math and income status, with two notable exceptions: grade 5.5 and 8.5 students eligible for reduced-price lunch showed accelerated gains in math and grade 8.5 students not eligible for free- or reduced-price lunch lost ground in terms of math achievement;

English language learner status

- Excel students in grade 3.5 who were English language learners showed accelerated gains in both reading and math while the achievement gains of ELL learners at grades 5.5 and 8.5 were mixed (e.g., slight accelerated gain in math at grade 5.5, further loss of ground in reading as compared to peers nationally at grades 5.5 and 8.5).

Findings by Type of Excel Program and Level of Implementation

Schools implementing the Excel program varied in terms of their program design. Approaches included a pullout model in which one or more teachers pulled students out of their regular classes for instruction in reading, writing, and mathematics, homogeneous grouping of small groups of students for instruction in these areas; homogenous grouping of 18-20 students in self-contained classrooms; and placement in heterogeneous (inclusion) classrooms (e.g. 3-4 Excel and other regular students) in which pullout could be part. Regardless of model, Excel teachers were offered a variety of opportunities for professional development and support and were expected to devote 3 ½ hours of instruction each day to the core academic subjects using a standard-based approach.

Key findings regarding the accelerated gains achieved by Excel students by program design and level of teacher implementation include:⁹

- ◆ Excel students in grades 3.5 and 5.5 who experienced the inclusion model, available at the elementary level, showed accelerated gains in reading and math;

⁹ The reader should interpret these findings with caution because students were not randomly assigned to program models or teachers. As a result, differences in student gains cannot be fully attributable to differences in their program experience.

- ◆ Excel students in grades 3.5 who experienced the homogeneous model showed accelerated gains in reading and math while students in grades 5.5 and 8.5 who experienced this model did not;
- ◆ Students in grades 3.5 and 5.5 who experienced the pullout model of Excel tended not to show accelerated performance in reading or math (with the exception of students in 3.5 who showed slightly accelerated gains in math);
- ◆ Students in grade 3.5 whose Excel teacher was categorized as having a high level of participation showed the greatest accelerated learning in reading and math; the participation levels of Excel teacher at grade 5.5 showed less of a consistent effect on the accelerated achievement of these students, although students who had teachers with medium to low participation did show a pattern of losing ground.

We believe that these findings demonstrate that during its first, inaugural year, of implementation, the Excel program is showing clear signs that the approach can accelerate the learning of students in reading and math. A continued focus on strengthening the model and the implementation by Excel teachers should translate into greater gains by participating students.

Appendix A. MAT8 Results

Figure 7. MAT8 NCE Scores in Reading, Language Math by Grade Level, 2001-2002

