

DOCUMENT RESUME

ED 466 479

TM 034 218

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 TITLE Can Extended Learning Opportunities Improve Student Achievement? E&R Report.
 INSTITUTION Wake County Public School System, Raleigh, NC. Dept. of Evaluation and Research.
 REPORT NO WCPSS-E&R-02.17
 PUB DATE 2002-04-00
 NOTE 33p.; Paper presented at the Annual Meeting of the American Educational Research Association (New Orleans, LA, April 1-5, 2002). Based on a report, "The Accelerated Learning Program (ALP) 2000-01: Student Participation and Effectiveness," Wake County Public School System. Based on a larger E&R Report, "The Accelerated Learning Program (ALP) 2000-01: Student Participation and Effectiveness." Some charts may not reproduce adequately.
 AVAILABLE FROM For full text: <http://www.wcpss.net>.
 PUB TYPE Numerical/Quantitative Data (110) -- Reports - Research (143) -- Speeches/Meeting Papers (150)
 EDRS PRICE MF01/PC02 Plus Postage.
 DESCRIPTORS *Academic Achievement; Achievement Gains; Compensatory Education; Elementary Education; *Elementary School Students; *Extended School Year; Student Evaluation; *Supplementary Education
 IDENTIFIERS *Wake County Public School System NC

ABSTRACT

The Accelerated Learning Program (ALP) is the major initiative that the Wake County Public School System (WCPSS) is using to help all students reach grade level performance in reading and mathematics. In 2000-2001, ALP's second year of implementation, the program expanded from grades 3-8 to grades K-12. The focus of this report is on the program in grades 3 through 8. Overall, 10,000 students were eligible for ALP in those grades, with 7,325 participating. The program provided up to 22 days of extra instruction to students during the school year, with most services provided outside the regular school day. The evaluation, which drew on several data sources, found changes in both growth and performance that supported the effectiveness of ALP and other assistance at grades 3 through 8. The number of students able to reach grade level achievement increased over 1999-2000, and fewer students dropped from grade-level to below grade-level achievement. Both students served in the ALP and those who were not made strong achievement gains in most grades in the Wake County schools, and findings suggest that extended learning opportunities can make a positive difference, but cannot replace other forms of assistance. Some details about the time of day ALP services were offered are included. (Contains 26 figures and 2 references.) (SLD)

CAN EXTENDED LEARNING OPPORTUNITIES IMPROVE STUDENT ACHIEVEMENT?

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Paper Prepared for
Presentation at Annual Meeting of American Educational Research Association
New Orleans, April 2002

E & R Report # 02.17

This paper is based on a larger E & R Report, "The Accelerated Learning Program (ALP) 2000-01: Student Participation and Effectiveness," available at <http://www.wcpss.net>.

SUMMARY

PROGRAM OVERVIEW

WCPSS is a large and diverse school system, with over 100,000 students and about 30% minority and low income students. We also have urban, suburban, and rural areas within the large county system, including 11 municipalities. Because of this diversity, our findings may prove useful to other school systems as they struggle to meet the educational needs of all students.

The Accelerated Learning Program (ALP) is the major initiative that the Wake County Public School System (WCPSS) is using to help all students reach grade level performance in reading and math. In 2000-01, ALP's second year of implementation, the program expanded from grades 3-8 to K-12. The focus of this report will be on the program at grades 3-8.

Overall, 10,099 students were eligible for ALP in grades 3-8, with most participating (7,325 or 73%). The program provided up to 22 days of extra instruction to students during the school year. Most services were provided outside of the regular school day, with less than one third of the hours provided during the school day. Most of those who chose not to participate in ALP received other forms of assistance, e.g., Special Education, Title I, Language Arts Resource Teachers, English as a Second Language (ESL), Project SOAR, Support Our Students (SOS), Communities in Schools (CIS) or private tutoring.

KEY FINDINGS

Changes in both growth and performance support the effectiveness of ALP and other assistance at grades 3-8:

- Students in grades 3-8 scoring below grade initially (Level I and II) have shown improved growth since ALP began. Level I and II students showed exemplary growth based on the ABC state

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regression formulas at both the elementary and middle school levels in spring of 2001. (Elementary students initially scoring at Level I or II also showed exemplary progress in 2000.) Exemplary growth will be necessary for these students to reach grade level.

- In 2000-01, the percentage of Level I and II students that were able to reach grade level achievement was 45% in reading and 48% in math. This was a considerable improvement over 1999-00 and previous years in both subjects (when 39% improved in reading and 41% in math).
- Fewer students also dropped from grade-level to below-grade-level achievement, from about 6% to 4.5%. These improved patterns brought a net increase of 1,465 students scoring at grade level or above in reading and 850 in math, double the net increase in 1998-99.

ALP has expanded the system's capacity for service so that all students at grade level 3-8 scoring below grade level can be offered assistance. (In 1998-99, grants and locally funded programs were only able to serve 54% of the low achieving students.)

Both students served in ALP and those students not served made strong gains, exceeding state ABC exemplary standards in most grades. At grades 7 and 8, gains for students served through ALP were significantly greater than for students served in other ways. Gains were similar for the two groups at most other grades, with the exception of grade 3, where students served through ALP gained less than those not served. The lower reliability of the third grade pretest may have contributed to these results, along with instructional practices such as curriculum pacing, coordination across teachers, lack of sufficient grouping, etc. Thus, extended learning opportunities can make a positive difference, but not replace other forms of assistance.

An analysis of system-wide student gains does not suggest any changes in current practices for instructors used, group sizes, and hours provided. Findings do suggest that elementary students' reading gains are lower if schools try to provide extra help through ALP both during and outside of the school day. At the middle school level, providing ALP during the school day *in math* seemed to promote the strongest achievement growth.

Comparisons of practices in schools with the highest and lowest gains for low achieving students do suggest some optimal practices. The strongest Elementary and middle schools tended to:

- Use more instructional strategies (especially curriculum mapping),
- Have steady attendance in ALP throughout the year, and
- Report fewer problems in recruiting staff than schools with lower growth.

"High growth" elementary schools had a lower concentration of Level I and II students on their campus, and staff mentioned frequent assessment of students as characteristic of their programs. Strong middle schools, in comparison with lower growth middle schools, offered ALP at more than one time of day, offered ALP throughout the year, teamed across grade levels, and had extended advisories or team time more often.

Extended learning experiences during the school year can make a positive difference, but will require the commitment of additional resources and a concerted effort over time.

PERSPECTIVES AND FRAMEWORK

The gap between low and high performing students stands as one of the oldest, most intractable problems of education. As standards for student achievement increase, the task of closing the gaps becomes even more daunting. To help improve the performance of students who show low achievement, states, districts, and individual schools have tried a wide variety of approaches. Some efforts have incorporated special instructional programs, while others have focused more on overall school reform. State-level approaches currently seek greater accountability by defining school progress in terms of absolute performance targets, relative growth, and narrowing the achievement gap (Goertz and Duffy, 2001). Myriad approaches have been tried at the school level, including formal programs and efforts of schools' own design (Educational Research Service, 1998).

Cawelti and Protheroe (2001) searched nationwide for school systems that have successfully closed achievement gaps between minority and majority students. They found only a few who had succeeded, all of which were smaller school systems. The Wake County Public School System (WCPSS) is attempting to meet this challenge in a large school system (over 95,000 students). Improved student achievement is driven by both state accountability standards (which include both absolute performance and growth goals for each school) as well as an ambitious school system goal, that 95% of students will show grade level performance by 2003 at grades 3 and 8 (as measured by state tests). The Accelerated Learning Program (ALP) was created to provide schools with the necessary resources to give students extended learning opportunities.

ALP guidelines were established based on research and input from school and central staff. Research suggests academic performance is affected by the amount of overall time students for instruction, tutoring focused on reading and math, individualized student goals, and frequent assessment of student progress (American School Board Journal, 1998; Accelerated Learning Program, 1999). Parameters specified that students who scored below grade level were to be provided up to 22 days of *additional* instruction (occurring outside of the regular school day) through trained instructors (preferably teachers) in small groups (of 15 students or less). Within these parameters, schools were given latitude in their implementation approaches. Schools were allotted funds for each student in grades 3-8 scoring in Level I or II (considered below grade level on EOG). Schools with the highest percentage of low-income students received extra funds. The ALP Program was funded through local and state funds.

Assistance to students continued to be available through programs such as Special Education, Title I, Language Arts Resource Teachers, English as a Second Language, and Communities in Schools.

OBJECTIVES

In this paper, we will describe:

- How extended day opportunities were provided to students.
- The achievement effects of providing extended learning opportunities to students who initially show below grade level achievement.

- Program features at the school and system level that led to greater success for students.

METHODS

The emphasis of this evaluation was on ALP. However, the Evaluation and Research Department (E&R) also collected and analyzed data on all assistance programs available to students considered to be below grade level—those who scored below grade level on the End-of-Grade (EOG) state assessments or the district’s literacy and math assessments at the end of grade 2. This allowed us to study the potential differential impact of various services for students, as well as the potential overlap in services. The basic questions guiding our evaluation efforts were:

- What services were available to students considered below grade level?
- How was ALP designed and implemented?
- How many students participated in ALP and other programs?
- What was the impact of ALP and other services on the achievement of students who were low achieving in general?
- What was the impact of ALP compared to other services for these students?
- What program-related factors led to the greatest gains for these students system-wide?
- What school-related factors led to the greatest gains for these students?

We utilized both quantitative and qualitative analyses in this study. Descriptive analyses were used extensively to summarize school and system overall approaches to implementation, and staff impressions of effectiveness. Analyses of state test results included both descriptive statistics on scale score and level score changes over two years as well as regression analyses of two types. State regression formulas were used to assess schools’ and subgroups effectiveness relative to state expectations for expected and exemplary growth. In addition, we carried out additional regression analyses to explore whether various program facets impacted student achievement results. The spring 2000 EOG scores were regressed on the hours of help provided, instructional group size, type of instructor, timing of help, and instructional approaches. The spring 1999 EOG scores were used as a control variable. After deleting missing data across all variables, 6,195 students were in the reading analysis and 5,452 in the math analysis.

DATA SOURCES

The primary data sources for this evaluation included the following.

- Surveys to collect ALP program descriptions from each school and feedback on its effectiveness for them,
- Data sheets for each of approximately 10,000 students eligible for ALP, detailing services provided, when, and by whom,
- Scale scores and level scores on the state’s End of Grade (EOG) multiple-choice tests in reading and math for spring 1999 and 2000 (pre and post), and
- District central computer files listing important demographic information on students such as days of enrollment and other program services received within WCPSS.

ALP PROGRAM

Implementation: All schools implemented ALP. Nearly all students scoring in Levels I and II (about 90%) received additional assistance from ALP or another program.

- Most traditional-calendar schools offered ALP on Saturdays and after school. Year-round schools served students during intersessions primarily, with some after-school and Saturday sessions.
- Schools offered an average of 100 hours for ALP students. The number of hours offered per school varied widely, from 35-505 hours.
- Overall ALP attendance was higher for elementary (72%) than middle schools (63%). At traditional-calendar schools, attendance rates were higher for sessions held on school days than for sessions on non-school days. Intersession attendance was high at year-round schools.
- All schools used teachers from their own school to deliver ALP instruction. In addition, schools utilized volunteers, teacher assistants, other school professionals, retired teachers, and teachers from other schools.

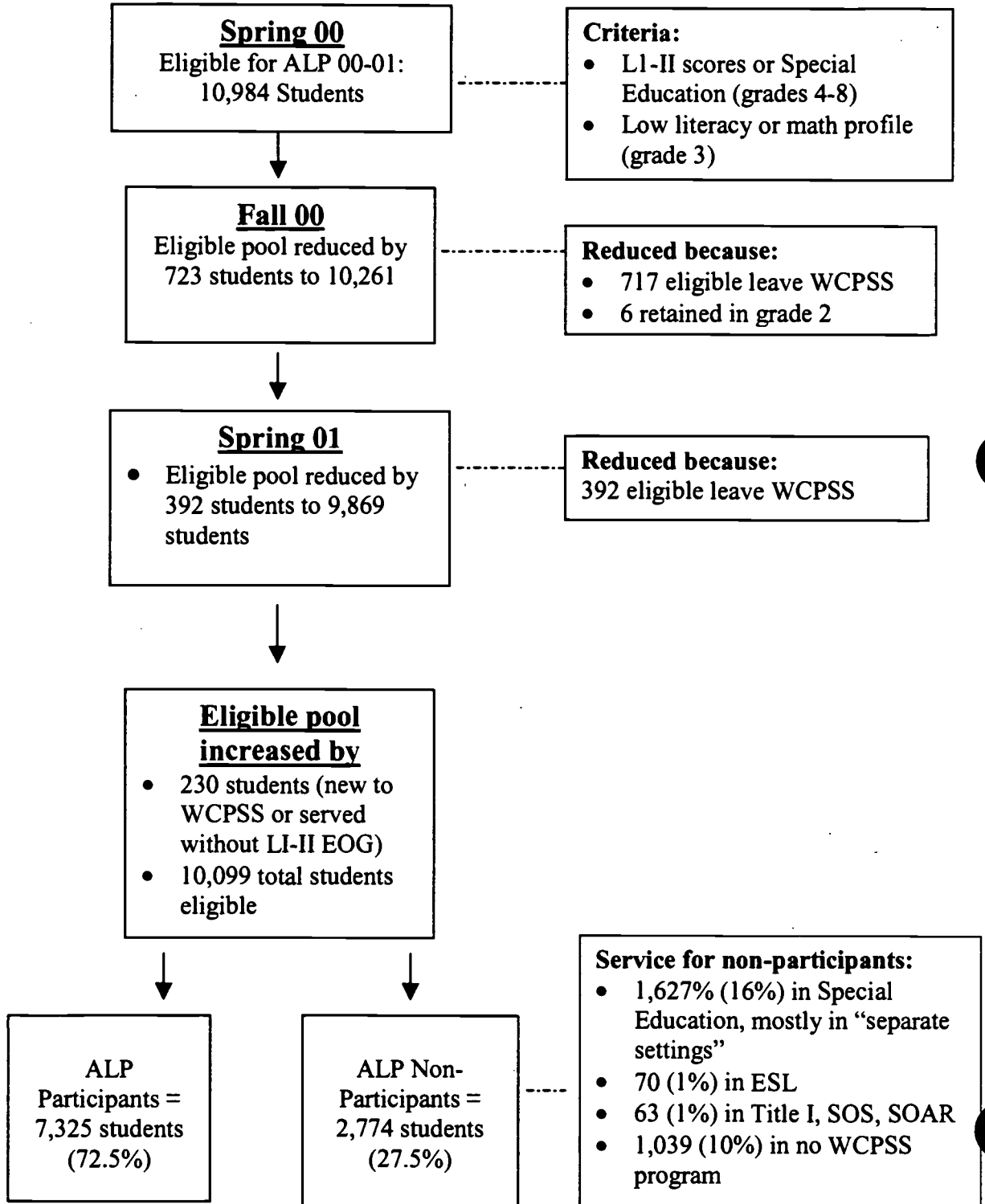
ALP PARTICIPATION 3-8

As the following figure illustrates, 10,984 students initially were eligible as of spring 2000 (compared to 10,464 in spring 1999). More students were technically eligible compared to spring 1999 because eligibility rules were adjusted to include all special education students not tested on the EOG. This was done in response to a change in state rules, which required testing with some form of the EOG for all special education students (standard test, computer adaptive test, checklist, or portfolio). Students assessed with some alternate form of the EOG test were less likely to be instructed on the standard course of study at grade level, and therefore less likely to want to participate in ALP. However, there was no way to predict which students to exclude, so all were therefore counted in eligibility counts.

Some students (231) were added to the original eligibility count because they were new to the system or in need based on school assessments. (Schools were allowed to serve students that did not score below grade level on the EOG if there was room in their program once eligible students were invited to attend.) On the other hand, 621 students left WCPSS during the school year. As of spring, 2001, 10,099 students were enrolled and eligible to participate in the Accelerated Learning Program. Of these, 7,325 (72.5%) participated in ALP; 2,744 (27.5%) did not. Most of those who opted not to participate in ALP were served through another WCPSS program (only 10%, or about 1,000 students, were not). About 45% of those eligible were actually served through ALP and another form of assistance.

The overall allocation for the ALP program at grades 3-8, including the challenged schools, school grant, and community components, was \$6,805,211. With service to 7,325 students, the cost per student was \$929.

Figure 1
ALP 3-8 Eligibility and Participation 2000-01



Compared to WCPSS overall, Black and low-income students were over-represented in those eligible for the program, a trend that has been found for assistance programs over time. Of those eligible based on test performance:

- 58% were Black, with 46% of other ethnic backgrounds,
- 2.3% were in English as a Second Language (ESL) programs,
- 54% were male and 46% were female,
- 43% received special education services, and
- 50% were low income (based on free- or reduced-price lunch eligibility).

Figure 2
ALP 3-8 Percentage of Students Eligible and Participating,
with Comparative Characteristics to WCPSS Overall

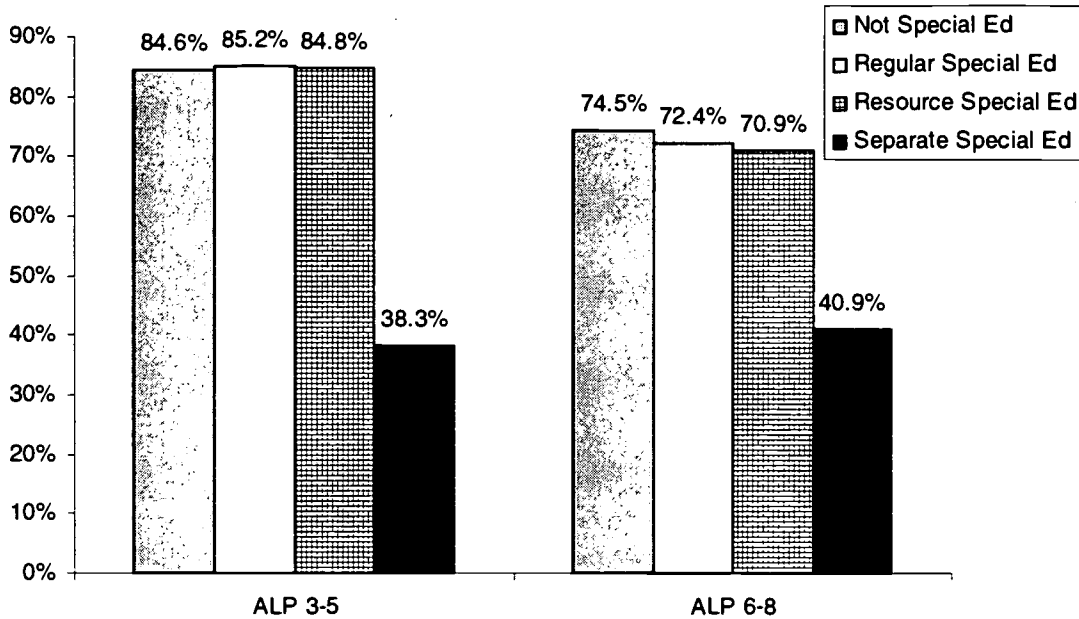
Ethnicity	ALP 3-5		ALP 6-8		ALP 3-8		% of K-12 Population
	Eligible	Participating	Eligible	Participating	Eligible	Participating	
White	33.1	30.8	31.1	29.5	32.2	30.5	63.2
Black	55.7	58.0	60.0	61.6	57.6	57.5	26.2
Hispanic	7.5	7.5	5.9	5.4	6.8	6.7	4.6
Asian	1.6	1.4	1.6	1.8	1.6	1.6	3.9
Native American	0.2	0.3	0.2	0.1	0.2	0.2	.2
Multi/Other	2.0	2.0	1.1	1.1	1.6	1.6	1.8
ESL	3.0	2.7	1.5	1.5	2.3	2.2	3.4
Male	54.2	53.0	56.9	55.9	55.4	54.2	51.0
Female	45.8	46.0	43.1	44.1	44.6	45.8	49.0
FRL	51.8	52.0	50.2	47.6	51.0	50.2	20.0
Non-FRL	48.2	48.0	49.9	52.5	49.0	49.8	80.0
Special Education	41.6	36.0	45.4	39.3	43.3	37.3	13.5
Total Counts	5,634	4,342	4,465	2,983	10,099	7,325	97,728

Note: Participation as of spring 2001. Percentage of population is from 20th-day counts, fall 2000.

Participation rates mirrored eligibility rates closely for ethnicity, ESL, gender, and income. For example, about half of the students eligible and participating in ALP were low income and about half were not. Special education participation (37% of those served) was slightly lower than the percentage eligible for service (43%). On closer examination, the lower participation rate was

for students receiving special education in separate settings. These students also generally have the greatest special learning needs.

Figure 3
Percentage of Special Education Students Participating in ALP



The figure below shows that participation rates were generally higher at elementary than middle schools, with the highest participation at grade 4 and the lowest at grade 8.

Figure 4
ALP 3-8 Eligibility and Participation by Grade

GRADE	# Eligible	# Participating	% Participating
3	2,062	1,538	74.6
4	1,894	1,521	80.3
5	1,678	1,283	76.5
3-5	5,634	4,342	77.1%
6	1,515	1,036	68.4
7	1,732	1,173	67.7
8	1,218	774	63.6
6-8	4,465	2,983	66.8%
TOTAL 3-8	10,099	7,325	72.5%

Of the 7,325 participants, most participated in programs in both reading (6,634 or 91%) and math (6,006 or 82%). (Some students did not score low in both subjects.)

ALP 3-8 ACHIEVEMENT TRENDS FOR LEVEL I AND II STUDENTS

Since ALP was such a large intervention effort and participation rates were high, examining student growth for all students who scored in Levels I or II in spring of 2000 provides useful information on overall program impact.

Overall, results showed quite positive achievement trends:

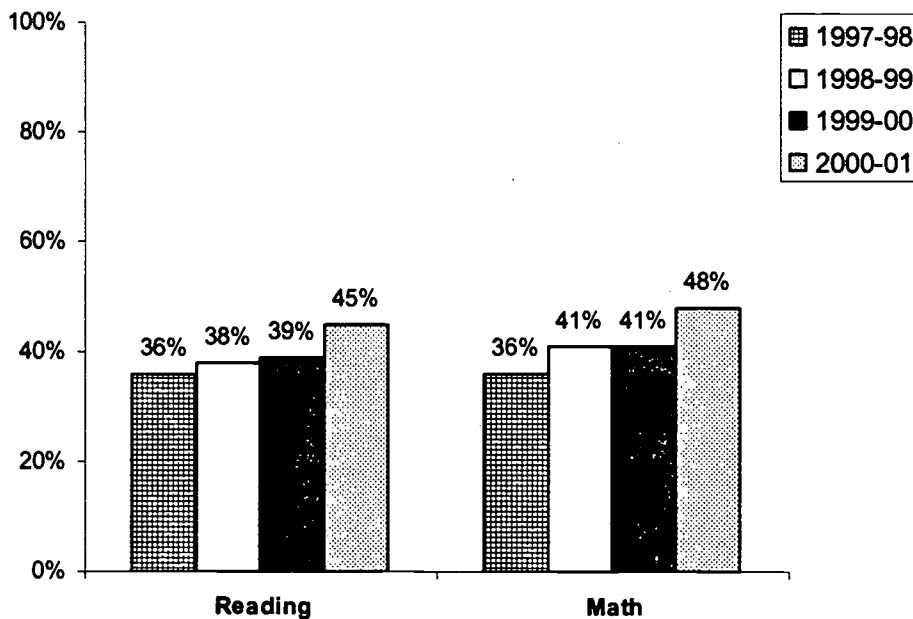
- The percentage of students moving up to grade level on EOG (from Level I-II to III-IV) increased.
- The percentage of students moving down from Level III-IV to Level I-II decreased (from 6% to 4.5%).
- The net increase in students in Level III-IV (1,465 in reading and 850 in math) was double that of 1999-2000.

Percentage of Students Able to Move Up to Grade Level 2000-01

WCPSS showed improvement in the percentage of students able to improve their performance from below grade level on EOG (Levels I-II) to at or above grade level (Levels III-IV) than was true in past years.

Figure 5

Percentage of Students Who Moved Up to Grade Level



Reading

More students were able to move up from Level I-II to Level III-IV between spring of 2000 and 2001 than with previous cohorts. Of those who scored Level I or Level II in spring 2000, 45% moved up to Level III or Level IV in reading, compared to 39% the previous year.

- The greatest improvements were seen in grades 3 and 5 in reading.
- *Grade 6 in reading stands out as an area for improvement* in moving students up across the year. Only 22% of students scoring below grade level in spring of 2000 were able to move to on grade level scores in spring of 2001, compared to 41-57% in the other grades.

The increase seen in 2000-01 represents a jump from previous years, and likely reflects the more extensive program provided in 2000-01, schools' greater experience with the program, and the cumulative impact of more than one year of help for many students.

A check of improvement among special education students revealed that 34% of those served were able to improve from Level I-II between spring of 2000 in reading and 38% in math. Although these percentages are about 10% lower in each subject than the overall rates, they do represent substantial improvement for a group with special learning needs.

Figure 6
WCPSS Achievement Level Status on EOG Reading between Spring 2000 and 2001

EOG READING	Grade	Spring 2001 Status (Posttest)			
		2000-01	LI-II #	LI-II %	LIII-IV #
Level I-II Spring 2000 (Pretest)	3	683	48.79	717	51.21
	4	613	58.33	438	41.67
	5	499	43.09	659	56.91
	6	755	78.16	211	21.84
	7	774	57.12	581	42.88
	8	419	48.95	437	51.05
	All	3,743	55.16	3,043	44.84
	Level III-IV Spring 2000 (Pretest)	3	357	6.02	5,572
4		305	5.15	5,623	94.85
5		108	1.86	5,701	98.14
6		506	8.43	5,499	91.57
7		179	3.26	5,309	96.74
8		123	2.17	5,556	97.71
All		1,578	4.53	33,260	95.47
Net Increase in Students in Levels III-IV		2000 to 2001: 3,043-1,578= 1,465		1999 to 2000: 2,646-1,972= 674	

Fewer students also dropped from Levels III or IV to Levels I or II between spring 2000 and spring 2001 than with previous cohorts. Of those scoring on grade level in spring 2000 in reading, 4.5% moved down to below-grade-level scores in spring 2001, compared to 6% the previous year.

- The smallest declines were evident in grades 5 and 8 (about 2%).
- *The greatest decline was evident at grade 6 (over 8%).*

The more positive patterns in results led to a net increase of 1,465 students showing grade-level achievement in reading—more than double the 67- student net improvement obtained last year.

Math

As in reading, more students were able to move up from Level I-II to Level III-IV between spring of 2000 and 2001 than with previous cohort. Of those who scored Level I or II in spring 2000, 48% moved up to Level III or IV in reading, compared to 41% the previous year.

- The greatest improvement was seen in grade 4.
- The least improvement was evident in grades 3, 7, and 8. At grade 3, the reliability of the pretest is lower than at other grades. However, greater relative difficulty in improving students' scores may also relate to the fact that additional assistance is not provided in math until grade 3 (unlike reading, which starts in the earlier grades).

Figure 7

WCPSS Achievement Level Status on EOG Math: Spring 2000 and 2001

EOG Math	Grade	Spring 2001 Status (Posttest)			
		LI-II #	LI-II %	LIII-IV #	LIII-IV %
Level I-II Spring 2000 (Pretest)	2000-01				
	3	581	66.55	292	33.45
	4	416	32.58	861	67.42
	5	337	51.61	316	48.39
	6	468	55.91	369	44.09
	7	505	58.25	362	41.75
	8	428	58.55	303	41.45
	All	2,735	52.21	2,503	47.79
Level III-IV Spring 2000 (Pretest)	2000-01				
	3	539	8.32	5,937	91.68
	4	52	0.91	5,687	99.09
	5	184	2.90	6,171	97.10
	6	285	4.63	5,866	95.37
	7	255	4.27	5,721	95.73
	8	338	5.83	5,462	94.17
	All	1,653	4.53	34,844	95.47
Net Increase in Students in Levels III-IV		2000 to 2001: 2,503-1,653= 850		1999 to 2000: 2,363-1,940=423	

Fewer students also dropped from Levels III or IV to Levels I or II between spring 2000 and spring 2001 than with previous cohorts. Of those scoring on grade level in spring 2000 in reading, 4.5% moved down to below grade level scores in spring 2001, compared to 6% the previous year.

- The smallest declines were evident in grades 4 and 5.
- The greatest decline was evident at grade 3.

The more positive patterns in results led to a net increase of 850 students showing grade level achievement in math, double the net improvement of 423 students obtained the previous year.

Student Score Declines Spring 2000 to 2001

In spring of 2000, the vast majority of WCPSS scored in Levels III or IV; most scored well above the score that divides students into Level II or III (“cut point for below and above grade level”). The standard error on the EOG at most grade levels is two points. (The percentage of students who scored five or more points above the Level II-III cut point was 84% in reading and 90% in math.) The next chart illustrates that:

- Most students were able to score at Levels III or IV again in 2001 regardless of their initial closeness to the cut points.
- Those closest to the cut were most likely to decline to Level I or II.
- Of those who declined, over half (62% in reading and 59% in math) initially scored within four points of the scale score cuts.

Figure 8

Level III-IV Students from Spring 2000 Declining to Level I or II as of Spring 2001 in Relation to Level II-III Scale Score Cut Points

Points Above Level II-III Cut	Spring 2000 Status	Spring 2001 Declines to Level I-II	
	# Students	#	%
Reading			
Level III 1-2 points above cut	2,086	536	25.7%
Level III 3-4 points above cut	2,490	443	17.8%
Level III or IV 5 or more points above cut	30,404	599	1.9%
Total	34,980	1,578	4.5%
Math			
Level III 1-2 points above cut	1,569	487	31.04%
Level III 3-4 points above cut	2,027	489	24.12%
Level III or IV 5 or more points above cut	33,069	677	2.05%
Total	36,665	1,653	4.5%

Overall Results Relative to ABC Standards

The state’s ABC regression formulas provide one yardstick by which we can assess the adequacy of growth for our students from one year to the next. Expected growth represents scale-score growth expected of students over one year; exemplary growth is approximately 110% of expected growth. Overall, the WCPSS school system showed exemplary growth at the elementary level and expected growth at the middle school level.

ABC results can also be broken down by initial achievement level. Strong exemplary growth is needed with our Level I and II students if we hope to achieve the 95% achievement goal over time. Although all students who score in Levels I or II do not move up to Levels III or IV performance in one year, consistently strong scale-score growth over time should lead most students to grade-level performance.

The following figure shows the actual scale-score growth shown for WCPSS students who scored in Levels I or II between the spring 2000 and spring 2001, along with the expectations for these students based on the state's ABCs of Accountability regression formulas. Expected and Exemplary Growth of 0 or above means the standard for each was met.

- *At the elementary level, WCPSS showed exemplary growth for students who initially scored in Levels I or II and Level III for the second year in a row. WCPSS showed expected growth for those initially scoring in Level IV. This is a positive pattern, in that all students are growing, but those with the greatest need for improvement are growing the most.*
- *At the middle school level, WCPSS showed exemplary growth for students who initially scored in Levels I or II and expected growth for those initially scoring in Levels III or IV. This is a more positive pattern than was found last year and again reflects strongest growth for those with the greatest need for improvement (Level I and II students).*
- *At both the elementary and middle school grades, growth was stronger for students in Levels I and II than for the students receiving free or reduced-price lunches and Black students. Our students in Level I or II who are low income and/or Black represent the greatest challenge for WCPSS educators.*

Figure 9

ABC Exemplary Growth for Key Subgroups in 2001

Group	Grades 3-5	Grades 6-8
Systemwide	.10	-.04
Levels I and II	.77	.24
Level III	.10	-.19
Level IV	-.22	-.03
Low Income	-.20	-.66
Not Low Income	.19	.08
Black Males	-.26	-.57
Black Females	-.16	-.48
White Males	.20	.05
White Females	.21	.16

Bold indicates ABC Exemplary Growth Standard was met.

■ signifies best results by level.

Breaking down the results for students who initially scored at Levels I or II by grade shows that:

- The strongest growth in reading was evident at grades 5, 7, and 8. Grades 3 and 6 showed the greatest need for improvement relative to ABC exemplary standards.
- The strongest growth in math was evident at grades 4, 5, and 7, with grades 3, 6, and 8 showing need for improvement to reach exemplary growth standards.

Thus, grades 3 and 6 showed the most need for improvement. A Sixth-Grade Task Force has been formed to explore possible reasons and solutions for grade 6 (lower gains reflect a state-wide trend in recent years). At grade 3, possible reasons could be related to instruction or assessment issues. The fall test at 3rd grade is much shorter and less reliable than at the other grades.

ALP 3-5 PROGRAMS

STUDENT ELIGIBILITY AND PARTICIPATION

Data sheets returned for individual students in grades 3-5 indicated that 77.1% of the eligible students actually participated in the program. Most of those who did not participate were served in other ways. The next figure summarizes enrollment breakdown by grade.

Figure 10

Enrollment in ALP 3-5, 2000-01

Grade	# Students Eligible for ALP	# Students Who Participated in ALP	% Students Who Participated in ALP
3	2,060	1,537	74.6%
4	1,896	1,522	80.3%
5	1,677	1,283	76.5%
Total	5,633	4,342	77.1%

Source: Instructional Assistance Data Sheets

Participation rates varied by school from 39.2% to 100% of those eligible. Other services available to students in grades 3-5 included:

- Title I
- Special Education
- English as a Second Language
- Communities in Schools
- Project SOAR
- Parent and other volunteer tutors
- Small group and individual instruction provided by special area teachers, the LART, the IRT, the lead literacy teacher, and/or teacher assistants.

ATTENDANCE

Overall attendance rates for ALP varied depending upon the days and times the program was offered and the school level (elementary and middle school).

- For elementary schools, sessions offered during the day were most heavily attended (95% mean attendance), followed closely by after-school sessions (90% mean attendance).
- Sessions on intersession days at year-round schools reported attendance of 84%.
- At traditional schools, sessions held on days when school was not in session had lower attendance (60-63%).

Figure 11

2000-01 Attendance Trends for ALP 3-5

Student Attendance	Saturday (N = 41 of 76 schools)	Before/ After School (N = 46 of 76 schools)	During the Day (N = 19 of 76 schools)	Intersession (N = 9 of 9 schools)
	% of schools reporting this attendance rate	% of schools reporting this attendance rate	% of schools reporting this attendance rate	% of schools reporting this attendance rate
Under 60%	31.7%	10.9%	10.5%	33.3%
60 – 69%	31.7%	2.2%	0	0
70 – 79%	14.6%	6.5%	5.3%	11.1%
80 – 89%	12.2%	17.4%	5.3%	22.2%
90% and Above	9.8%	58.7%	78.9%	33.3%

Source: ALP Feedback Forms (76 of 78 schools reporting)

Figure 12

ALP 3-5 Attendance Across Schools: Mean Percentages

	On School Days			Not on School Days		
	During the Day	Before School	After School	Teacher Workday	Saturday	Inter-session Days
2000-01	95%	80%	90%	60%	63%	84%
1999-2000	--	82%	85%	56%	63%	88%

Source: ALP Feedback Forms

Individual students' attendance averaged about 70% based on our sample of 1,555 students. More information on hours of service can be found in the Student Achievement Outcomes section of this report.

SUCSESSES AND CHALLENGES

Based on the ALP Feedback Forms, elementary schools considered the greatest success of ALP to be staff commitment (65.4%), followed by student enthusiasm and students' learning (56.4% each). Schools found that recruiting staff (41%) and staff burnout (35%) were the most challenging aspects of their ALP program.

Russonello and Stewart (2001) recently surveyed pre-K-8 principals nationwide about after-school efforts. The biggest challenges principals noted were obtaining sufficient funds, finding and retaining good staff members, and securing transportation for students. Other than funding, WCPSS school staff mentioned similar issues. (Our school staff may have considered funding to be a system challenge rather than one for their school.)

STUDENT ACHIEVEMENT OUTCOMES

Growth for Students Based on ALP Participation

As presented earlier, Level I and II students made strong growth between spring 2000 and spring 2001. The issue addressed here is whether students who participated in ALP showed stronger growth than those who did not. We analyzed this question in two ways. First, we compared growth for students served in ALP (or ALP and another program) to those not served in ALP (most of whom were likely served in another way, e.g., exclusively through Title I, Special Education, ESL, SOAR, SOS, or a private tutor). Analyses were subject specific, with only students who scored in Levels I or II in reading as of spring 2000 (fall 2000 for grade 3) included in the reading analyses, and only those who scored low in math initially included in the math analyses. We utilized ABC expectations for exemplary growth for Level I and II students as an external standard for effectiveness. The ABC state regression model was designed to show the kind of progress students who are low achievers need to demonstrate in order to reach grade level between grades 3 and 8). ABC analyses include students with Level I or II in either reading or math in analysis of both subjects. Our analysis was more accurate in tracking improvement for those who truly had deficits, but results must be interpreted with more caution because of this difference in inclusion rules.

We then checked the characteristics of eligible students who chose to participate in ALP and those who did not choose to participate. Compared to students not in ALP, those in ALP were about as likely to be low income (52% of those in ALP were low income, compared to 51% of those not in ALP), but much less likely to be participating in special education programs (36% vs. 60%). We therefore conducted a second set of analyses using regression, and controlled for pretest scores, free-lunch status, and special education status. One caution is that the two groups may have varied in other ways as well. Based on the student sample for whom we collected more information, another service was considered more appropriate to student needs in many

cases (mostly special education, though a few mentioned services such as ESL or tutors). Late school enrollment, lack of test scores, and scheduling conflicts were mentioned in a few other cases.

As the following figure shows, mean scale-score gains for elementary students in ALP and/or other programs met ABC exemplary standards in all grades in math and grades 4 and 5 in reading (missing the benchmark only at grade 3). These overall results are positive and point out the benefit of making assistance available to all those in need (which was not possible before ALP).

On the other hand, ALP did not appear to result in stronger gains than other support available to students at the elementary level. Student growth appeared similar for those in ALP and those not in ALP at grades 4 and 5 and significantly lower for third graders in ALP than not in ALP. Similar gains for the two groups are not a concern when both groups showed strong growth. Similarly strong growth suggests that students are receiving appropriate support. However, third-grade results deserve some follow-up. The shorter, less reliable pretest at grade 3 contributes to results that must be interpreted cautiously. However, it is also worth considering ways to improve the overall instructional program and ALP specifically at grade 3, especially since it is a grade targeted in the system's achievement goal.

Figure 13

**EOG Scale Score Gains Based on ALP 3-5 Participation
Relative to ABC Exemplary Standards for Level I-II Students in 2000-01**

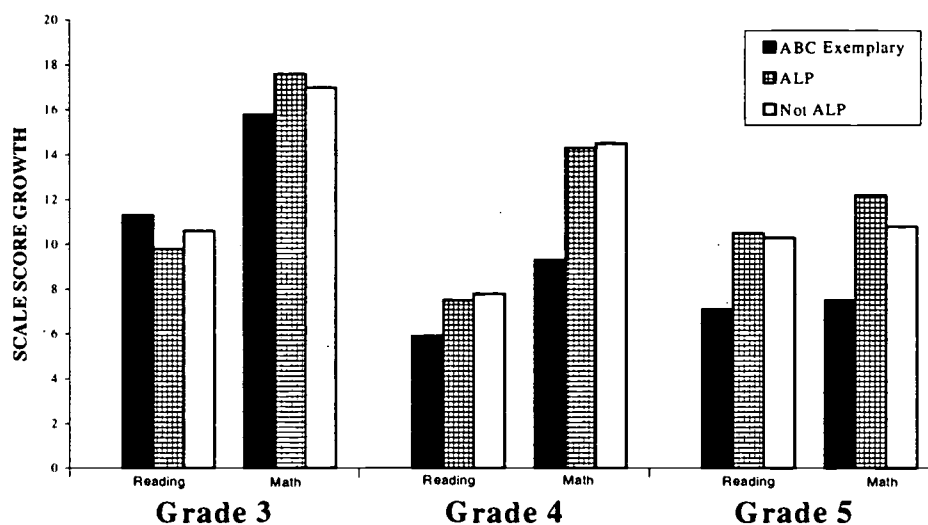


Figure 14

ALP 3-5 EOG Reading and Math Gains for Students in Level I-II in ALP or Not Served in ALP (Most of Whom Were Served Through Another WCPSS Program)

EOG Reading	Grade 3		Grade 4		Grade 5	
	# Students	Gain in SS*	# Students	Gain in SS*	# Students	Gain in SS*
ABC Exemplary	1,350	11.3	1,503	5.9	1,248	7.1
ALP	711	9.8	856	7.5	958	10.5
Not ALP	119	10.6	128	7.8	136	10.3
All Level I-II	830	9.9	984	7.6	1,094	10.5
EOG Math	Grade 3		Grade 4		Grade 5	
	# Students	Gain in SS*	# Students	Gain in SS*	# Students	Gain in SS*
ABC Exemplary	1,350	15.8	1,503	9.3	1,248	7.5
ALP	516	17.6	991	14.3	506	12.2
Not ALP	85	17.0	199	14.5	101	10.8
All Level I-II	601	17.5	1,190	14.3	607	12.0

*Gains in SS = Average Scale Score Gain 00 to 01

Note 1: **Shading** Means Group Met ABC Exemplary Growth Standard

Most students not served through ALP were served in other WCPSS programs.

FACTORS LEADING TO GREATEST ACHIEVEMENT GAINS

Schools had a great deal of flexibility in implementing ALP (within broad guidelines), and student gains varied considerably across school programs. We therefore examined whether student gains differed based on program characteristics. One regression analysis analyzed the impact of the time of service on student achievement outcomes, while a second explored the impact of other program characteristics. Specifically, we addressed two questions:

- Did the time of day of instruction (during, outside the school day, or both) impact student scale score achievement gains?
- Did factors related to other program characteristics (type of instructor, hours of service, and group size) impact the size of the achievement gains made by students?

Across grades 3-8, the analyses were based on the sample of 1,855 students, of which 1,551 responded (84%). Overall, 945 students were included in the reading analysis and 843 in the math analysis. To be eligible for the analysis, students had to have pre- and posttest scores and a Level I or II score in the subject in spring of 2000 and 2001. Students also had to have data on all variables in the analysis. Due to small sample sizes at some grades, analyses were done by level (grades 3-5 and grades 6-8). Because expectations for scale score gains and sample sizes vary by grade on the EOG, we decided to use residual scores from the effectiveness index for these analyses. These residual scale scores reflected the difference between students' actual gains between spring of 2000 and 2001 and what was expected of them (based on a regression formula which controlled for special education and free lunch status). The residual scores were first standardized for analysis through conversion to z scores.

Timing of ALP Service

Schools were given more flexibility in 2000-01 to provide ALP services at least partially during the day. Most students continued to receive ALP help primarily outside of the regular school day in 2000-01 (about 70%), with 15% served both during the day and outside for ALP another 15% served only during the day. The regression model tested whether students were more likely to show higher standardized residual scores if they were served only outside of the school day, during the school day, or both during and outside of the school day. Overall for the elementary analysis, 632 students were included for reading and 583 for math. As the next chart illustrates, time of service did not impact elementary math gains, but reading residuals were lower if students were served both during and outside of the school day (compared to outside only).

Figure 15

Importance of Help Outside the School Day: Elementary

	Time of Day	N	Significance
Reading	Outside Only	442	Significantly higher than Both (p=.027)
	During Only	88	Ns
	Both	103	Significantly lower than Outside Only (p=.027)
Math	Outside Only	483	ns
	During Only	73	ns
	Both	72	ns

These results suggest that math ALP programs can be successful regardless of the time of day students are served. However, with elementary students, it is better not to serve students in reading through ALP both during and outside of the school day. This may reflect schedule and/or planning coordination issues or differences in instructional approaches across teachers.

Other Factors Related to ALP 3-5 Service: Attendance, Group Size, & Instructor

In addition to examining the timing of ALP, the analysis also considered attendance, group size, and instructor. After deleting missing data across variables within subject, 551 elementary school students were included in the reading analysis, 498 in the math analysis, and 235 in the writing analysis. Descriptive statistics for attendance, group size, and instructor are shown in the following figure.

On average, elementary students planned and attended more ALP sessions in reading (36) than in math (30) and writing (28). Rates of attendance (79%) and hours per session (1.6) were comparable in reading and math but slightly lower in writing. Total service, as derived by multiplying the number of sessions attended by the hours per session, was higher in reading than in math, and higher in math than in writing. (Less service in ALP in writing is reasonable, since it is tested less often by the state and is not part of the system's achievement goal.)

Group size averaged around 9 students in both reading (8.8) and math (9.1) and writing (9.6). Group size had a standard deviation of about 2.7 students for reading and math and 4.0 for writing.

The instructor variable consisted of three categories for ALP, reflecting service by: a) the student's teacher (often plus others), b) another teacher only, or c) other professionals, teaching assistants, and volunteers. As shown in the next figure, students were least often taught by their own teacher and most commonly taught by teachers other than their own.

- For both reading and math, only about 12% received instruction from their own teachers. About 60% of students were taught only by teachers other than their own. Other professionals, teaching assistants, and volunteers taught slightly less than 30% of the students.

- In writing, the pattern was somewhat different than in reading and math. Students were about as likely to be taught by a teacher other than their own as by “others” [other professionals, teacher assistants, or volunteers (44%)]. Students were even less likely than in reading and math to be served by their own teacher (6%).

Figure 16

Elementary Characteristics of ALP: Hours, Group Size, and Instructors

	Reading n=551	Math n=498	Writing n=235
Attendance			
# Sessions Planned	42.0	35.5	33.5
# Sessions Attended	36.1	30.1	28.3
Attendance Rate	79.9%	79.5%	77.4%
Hours Per Session	1.6	1.6	1.2
Total Service Hours	47.7	39.5	27.1
Group Size (Average)	8.8	9.1	9.6
Instructor:			
Own Teacher (or Own Teacher Plus Others)	n=63 (12%) n=334 (61%)	n=56 (11%) n=299 (60%)	n=15 (6%) n=116 (49%)
Another Teacher Only			
Others Only (School Professional, Teacher Assistant, Volunteer)	n=154 (28%)	n=142 (29%)	n=104 (44%)

Multivariate regression models tested whether or not reading and math residuals were affected by the amount of service (number of sessions attended times the hours per session), the attendance rate, the size of the group, and the instructor. *The regression analyses showed that none of these variables were significant predictors of the reading or math residual scores.* This suggests that, within ALP in WCPSS, similar gains were shown for students served by various types of instructors, for various hours, and in varying group sizes. It must be kept in mind, however, that all students were served in fairly small groups and that the number of sessions planned for students often varied depending on need. *Since the ALP program was effective overall, these analyses provide no evidence that practices need to be changed in these areas.*

Highest-Growth Schools

Overall, 85% of WCPSS elementary schools showed exemplary growth for Level I and II students in 2000-01, up from 80% in 1999-2000. This shows that strong growth was widespread for our lowest students, and also that strong exemplary growth will be necessary to accomplish the 95% achievement goal. We contrasted the characteristics of the 10 schools with the highest growth for Level I and II students (see the figure below) with those of the schools with the lowest growth. It is important to recognize that this is primarily a comparison between excellent schools and good ones (not poor ones). We compared both characteristics of the student bodies as well as the ALP programs based on school profiles, ABC results, and ALP feedback forms.

Figure 17

**Ten Highest-Growth WCPSS Elementary Schools for Level I-II Students:
ABC Performance and Exemplary Growth Composites**

Elementary School	Level I/II				
	Performance Composite	Exemplary Growth Composite	Expected Growth Composite	Students in Model	% Free/Reduced-Price Lunch
Leesville Road	76.50	2.27	2.76	30	8%
Morrisville	77.90	2.08	2.59	32	3%
Davis Drive	77.90	2.07	2.61	27	4%
Brooks	74.30	1.86	2.35	63	34%
Green Hope	77.20	1.80	2.32	10	3%
Lockhart	77.50	1.78	2.25	67	39%
Weatherstone	78.10	1.77	2.29	26	23%
North Ridge	77.30	1.72	2.21	44	30%
Durant Road	76.30	1.70	2.17	52	6%
Combs	76.80	1.66	2.20	22	26%

On the average, schools with the best gains for Level I and II students were more likely to:

- have lower concentrations of low income and minority students,
- provide ALP help outside of the regular school day,
- use more strategies overall,
- use frequent assessment to inform instruction, curriculum compacting, and curriculum mapping and pacing guides,
- recognize student learning and staff commitment as strengths of their ALP program,
- report fewer challenges (low schools mentioned staff recruitment and burnout more often),
- have steady attendance across the school year (with declines more common across the year in low schools).

Both high- and lower-growth schools mentioned student enthusiasm and attendance as strengths in their programs. Other similarities were the use of math manipulatives, frequent feedback to students, leveled book rooms, and individualized instruction. Both groups tended to do progress reports between the regular and ALP teacher (if not the regular teacher) informally, with periodic written summaries (with conferences at some schools). Personalized Education Plans (PEPS) were mentioned by only two schools as playing a role in this communication. Neither group extensively used special electives, extended advisory or team times, or special remediation/

enrichment times during the day. Highest-growth elementary schools were larger schools but with lower concentrations of Level I-II and low-income students, and they offered more ALP hours than lowest-growth elementary schools.

More intangible characteristics of schools, such as instructional leadership, staff enthusiasm, staff skills and experience, and student expectations also likely play a part in school success. A description of approaches in two schools with top gains as of spring 2000 is included in Attachment 5. More information on programs in top schools this year can be found in ALP Report 1 (E&R Report 01.36) and from the Evaluation and Research Department.

ALP 6-8

STUDENT ELIGIBILITY AND PARTICIPATION

Data sheets returned for individual students indicated that 66.8% of the eligible students actually participated in the program. Most of those who did not participate, received other WCPSS services. The following figure shows ALP eligibility and participation in 2000-01.

Figure 18
Enrollment in ALP 6-8 2000-01

Grade	# Students Eligible for ALP	# Students Who Participated in ALP	% Students Who Participated in ALP
6	1,515	1,035	68.3%
7	1,733	1,174	67.7%
8	1,218	774	63.5%
Total	4,466	2,983	66.8%

Source: Instructional Assistance Data Sheets

ATTENDANCE

As with elementary schools, attendance rates varied greatly across middle schools overall and within the various time slots ALP was provided.

ALP sessions offered during the school day had the highest mean attendance, at 88%. Saturday attendance by school ranged from 27% to 100%; the mean percentage was 65% attendance. The mean attendance percentage for after-school sessions was also 65%, with attendance ranging from 10% to 100%. The two year-round schools responding reported intersession attendance of 77% and 87%. Attendance was up slightly for all time slots compared to 1999-2000 attendance. Schools most often reported low attendance (defined as under 60%) for Saturday sessions.

Figure 19
2000-01 Attendance Trends for ALP 6-8

Attendance	Saturday (N = 17 of 24) % of Schools	After School (N = 10 of 24) % of Schools	During the Day (N = 8 of 24) % of Schools	Inter-session (N = 2 of 3) % of Schools
Under 60%	47.0%	30.0%	0%	0%
60 – 69%	11.8%	20.0%	0%	0%
70 – 79%	17.7%	10.0%	12.5%	50.0%
80 – 89%	5.9%	20.0%	37.5%	50.0%
90% and Above	17.7%	20.0%	50.0%	0%

Source: ALP Feedback Forms

Figure 20
ALP 6-8 Attendance Across Schools: Mean Percentages

	On School Days			Not on School Days		
	During the School Day	Before School	After School	Teacher Workday	Saturday	Inter- session Days
2000-01	88%	--	65%	63%	65%	82%
1999-2000	N/A	--	62%	60%	61%	79%

Source: ALP Feedback Forms

Individual Student Attendance

The attendance of individual students, as determined by the individual data sheets submitted for a sample of 1,555 students, was 75% for reading, 71% for math, and 75% for writing.

Figure 21
Individual Student Attendance for Instructional Assistance in Middle Schools

Subject	# Students	Mean Percentage
Reading	1,180	75%
Math	1,070	71%
Writing	373	75%

Students needing help in reading tended to receive the most assistance. Writing help was generally provided to students already there for reading or math help (with considerably lower enrollment).

SUCSESSES AND CHALLENGES

Based on input from the ALP Feedback Form, middle schools considered the greatest success of ALP to be staff commitment (80.8%). Student learning and student enthusiasm were also mentioned as successes by 53.8% and 42.3% of schools, respectively.

Schools found the most challenging aspect of the ALP program to be student attendance (53.8%). This was less commonly mentioned by elementary school staff (23%). Recruiting staff, student motivation, and transportation were the next most frequently cited, with 34.6% of schools reporting challenges in these areas.

IMPACT ON STUDENT ACHIEVEMENT

Growth for Students Based on ALP Participation

Level I and II students made strong growth between spring 2000 and spring 2001. Did students with needs who were served in ALP show greater growth than students not served in ALP? The answer at the middle school level is yes at grades 7 and 8.

We compared growth for students served in ALP (or ALP and another program) to those not served in ALP (most of whom were likely served in another way, e.g., exclusively through Special Education, ESL, SOAR, SOS, CIS, a private tutor, or parents). Analyses were subject specific, including only students who scored in Levels I or II in the specific subject. As an external standard, we included ABC expectations for exemplary growth for Level I and II students. ABC analyses include students with Level I or II in either reading or math in analysis of both subjects. Our analysis was more accurate in tracking improvement for those who truly had deficits, but results must be interpreted with more caution because of this difference in inclusion rules.

We checked the characteristics of students participating and not participating in ALP. Those in ALP were more likely to be low income (55% vs. 48%) and less likely to be special education (39% vs. 61%) than those not involved. We computed mean gains for each group and conducted regression analyses, which controlled for pretest scores, free-lunch status, and special education status. One caution is that the two groups may have varied in other ways as well.

As shown in the following figure, middle school students in ALP met or exceeded ABC exemplary standards in all three grades in both reading and math; those not served in ALP met or exceeded ABC standards in all areas except in grade 6 reading. These overall results are positive and point out the benefit of making assistance available to all those in need (which was not possible before ALP).

ALP also appeared stronger than other support for middle school students except at grade 6. Gains in both grades 7 and 8 were stronger for students served in ALP in both reading and math ($p < .05$ except grade 8 reading, which was $p < .10$). It could be because less assistance is available overall at the middle school level. In reading, it could also reflect the fact that reading is not provided as a subject on its own at the middle school level.

Figure 22
EOG Scale Score Gains Based on ALP Participation
Relative to ABC Exemplary Standards for Level I-II Students 2000-01

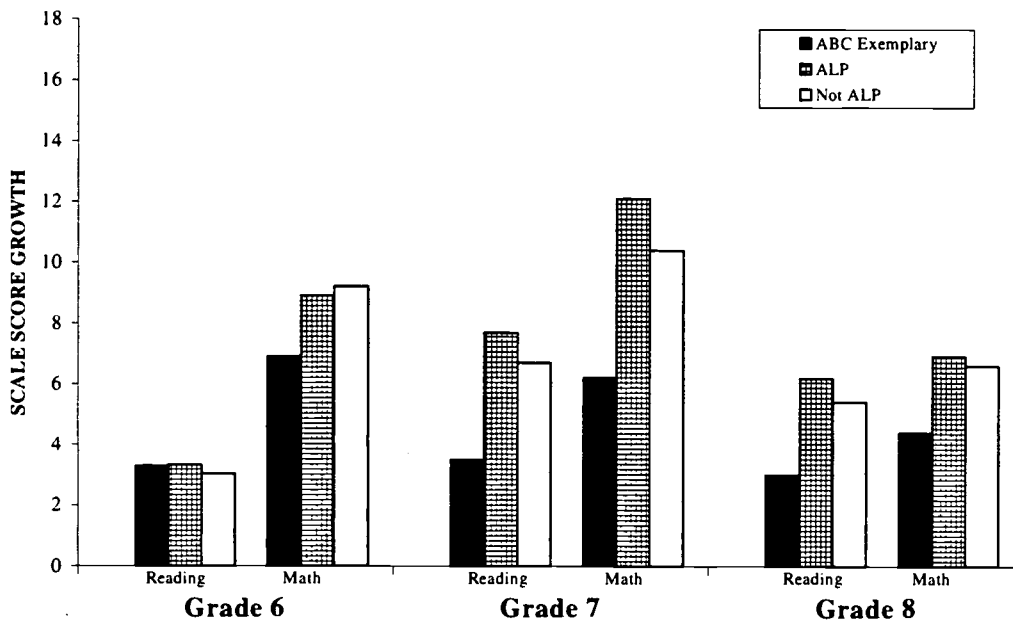


Figure 23

**EOG Reading and Math Gains for Students in Level I-II
Served in ALP 6-8 or Not Served in ALP**

EOG Reading	Grade 6		Grade 7		Grade 8	
	# Students	Gain in SS*	# Students	Gain in SS*	# Students	Gain in SS*
ABC Exemplary	2,405	3.3	2,471	3.5	2,489	3.0
ALP	639	3.3	910	7.8	534	6.2
Not ALP	227	3.1	355	6.7	231	5.4
All Level I-II	866	3.2	1,265	7.5	765	5.9
EOG Math	Grade 6		Grade 7		Grade 8	
	# Students	Gain in SS*	# Students	Gain in SS*	# Students	Gain in SS*
ABC Exemplary	2,405	6.9	2,471	6.2	2,489	4.4
ALP	527	8.9	512	12.1	392	6.9
Not ALP	207	9.2	254	10.4	236	6.6
All Level I-II	734	9.0	766	11.5	628	6.8

Shading Means Group Met ABC Exemplary Growth Standard

* Gains in SS = Average Scale Score Gain 00 to 01

Note: Most students were served through another WCPSS program.

FACTORS LEADING TO GREATEST ACHIEVEMENT GAINS

Schools had a great deal of flexibility in implementing ALP (within broad guidelines), and student gains varied considerably across school programs. We therefore examined whether student gains differed based on program characteristics. One regression analysis analyzed the impact of the time of service on student achievement outcomes, while a second explored the impact of type of instructor, hours of service, group size, and instructional approach.

Timing of ALP Service

Schools were given more flexibility in 2000-01 to provide ALP services at least partially during the day. Roughly 75% of students received ALP help primarily outside of the regular school day in 2000-01 while about 15% were served only during the day and 8% served both during the day and outside. The regression model tested whether students were more likely to show higher standardized residual scores if they were served only outside of the school day, during the school day, or both during and outside of the school day. Overall for the middle school analysis, 447 students were included for reading and 402 for math. As the next chart illustrates, time of service did not impact elementary reading residuals, but math residuals were lower if students were served outside of the school day only (compared to during the school day only).

Figure 24

Middle School: Importance of Help Outside the School Day

	Time of Day	N	Significance
Reading	Outside Only	331	ns
	During Only	77	ns
	Both	39	ns
Math	Outside Only	311	Significantly lower than During Only (p=.013)
	During Only	59	Significantly higher than Outside Only (p=.004)
	Both	32	ns

These results suggest that ALP reading programs can be successful regardless of the time of day students are served. However, with middle school students receiving ALP help in math, it is better to provide at least some service during the day (through electives or other means). For students with needs in both reading and math, if students have time for only one elective, math may be the better choice (with reading support provided outside of the school day).

Other Factors Related to ALP Service: Attendance, Group Size, & Instructor

In addition to examining the timing of ALP, the analysis also considered attendance, group size, and instructor. After deleting missing data across variables, 392 middle school students were included in the reading analysis, 345 in the math analysis, and 93 in the writing analysis. Descriptive statistics for attendance, group size, and instructor are shown in the following figure. On average, middle school students planned and attended more ALP sessions in reading (33) than in math (24) and writing (31). Attendance rates were comparable in reading and math (65%) but higher in writing (77%). Hours per session (1.8) were identical in reading and math but lower in writing (1.4). Total service, as derived by multiplying the number of sessions attended by the hours per session, was highest in reading, with similar hours provided in math and writing. (We actually expected to see less service in ALP in writing than in reading or math, since ALP funding is based on reading and math, writing is not part of the system's achievement goal, and writing is tested less often by the state. However, new promotion standards include writing performance as one criterion, which may contribute to these results.)

Group size averaged about 9 students in both reading (9.5) and math (9.4) but groups were larger in writing (11.3). The standard deviation for group size was about 2.8 students in reading and math, and much larger in writing (5.5 students)

The instructor variable consisted of three categories for ALP, reflecting service by: a) the student's teacher (often plus others), b) another teacher only, or c) other professionals, teaching assistants, and volunteers. ALP students were most often served by teachers other than their regular teacher for the subject in reading, math, and writing.

their own. Other professionals, teaching assistants, and volunteers taught slightly less than 15% of the students.

- The pattern for writing was somewhat different from reading and math, with the type of instructor was more evenly distributed. While teachers were still most likely to be served by teachers other than their own (44%), students were also more likely to be served by their own teacher (31%) or by other professionals, teacher assistants, or volunteers (25%).

Figure 25
Middle School Characteristics of ALP Time and Instructors

	Reading n=392	Math n=345	Writing n=93
Attendance			
# Sessions Planned	42.5	32.9	37.5
# Sessions Attended	33.3	24.3	30.9
Attendance Rate	66.3%	65.3%	77.3%
Hours Per Session	1.8	1.8	1.4
Total Service Hours	40.7	30.1	30.5
Group Size (Average)	9.5	9.4	11.3
Instructor:			
Own Teacher (or Own Teacher Plus Others)	n=50 (13%)	n=45 (13%)	n=29 (31%)
Other Teacher Only	n=288 (73%)	n=249 (72%)	n=41 (44%)
Others Only (School Professional, Teacher Assistant, Volunteer)	n=54 (14%)	n=51 (15%)	n=23 (25%)

Multivariate regression models tested whether or not reading and math residuals were affected by the amount of service (number of sessions attended times the hours per session), the attendance rate, the size of the group, and the instructor. The regression analyses showed that none of these variables was significant predictors of the reading or math residual scores. These results suggest that, *within ALP in WCPSS, similar gains were shown for students served by various types of instructors, for various hours, and in varying group sizes.* It must be kept in mind, however, that all students were served in fairly small groups, and that the number of sessions planned for students often varied depending on need. *Since the ALP program was effective overall, these analyses provide no evidence that practices need to be changed in these areas.*

Highest-Growth Schools

Among the five highest-growth middle schools were two of WCPSS's three year-round schools. The top schools offered an average of 59.8 hours of ALP instruction, compared to 91 hours for the five lowest-growth schools. Four of the five high-growth schools offered mixed session types for ALP, including Saturday hours. Session attendance ranged from 50.0% (before/after school) to 100% (during the school day). All of the high-growth schools utilized a wide variety of supplemental materials, with most specifically mentioning manipulatives. The five high-

growth schools had an average of 136 Level I and II students in their models; low-growth schools averaged 142.8 Level I and II students.

High-growth schools were more likely to:

- Begin their ALP programs early in the school year.
- Offer more than one session time for ALP assistance.
- Note high levels of parent cooperation with the ALP program.
- Report that the new WCPSS promotion/retention policy increased parent and student willingness to participate in ALP.
- Utilize a higher number of strategic approaches to support student success (e.g., teaming across grades for instruction, curriculum mapping, and extended advisory or team time).
- Used a greater range of supplemental materials such as software.
- Report student enthusiasm as one of the program's successes.
- Find that staff recruitment was not a notable challenge.

Figure 26

**Five Highest-Growth WCPSS Middle Schools:
ABC Performance and Exemplary Growth Composites**

School Name	Level I/II			Students in Model
	Performance Composite	Expected Growth Composite	Exemplary Growth Composite	
Durant Road (YR)	72.1	1.54	1.25	162
Leesville Road	69.0	1.43	1.14	107
West Lake (YR)	70.6	1.30	1.02	126
Daniels	67.3	1.18	0.90	138
East Cary	67.7	1.01	0.73	147

Middle schools with highest and lowest growth had approximately the same number of students participating in their ALP programs (136 students for highest-growth schools and 142.8 for lowest-growth schools), and comparable percentages of eligible students participating (68.6% for the highest and 65.8% for the lowest). Both highest- and lowest-growth schools used math manipulatives, high-interest reading materials, and learning games.

EDUCATIONAL SIGNIFICANCE

As school systems nationwide struggle to determine how to meet the new challenges of ESEA, the experience of WCPSS over the last several years may provide some useful tips and lessons. The combination of the state ABC model (with performance and growth components) and the 95% achievement goal, have combined to create a balance and tension between helping all students grow (necessary to reach growth standards) and providing extra help to those below grade level in performance (the 95% goal). The new ESEA model accomplishes this in a

different way, with achievement performance targets for all subgroups, but the end goal is similar, albeit even tougher (95% or 100% of students performing on grade level). Some general lessons from our experience in WCPSS are that:

- Extended learning opportunities during the year can make a positive difference for low achievers. Other research conducted in WCPSS indicates assistance during the year was more helpful than summer school (Holdzkom, 2002). Success will require additional resources and a concerted effort over time.
- The 100% standard set by ESEA will be nearly impossible to meet if only due to the measurement error inherent to all tests (95% is tough enough). States who do not already have state systems may set lower standards for “grade level” than states like North Carolina who have had tests in place.

This study also relates to the value of our work in some important ways.

- Despite the lack of random assignment, we were able to provide the school system with some useful data about program effectiveness. (Encouraging school systems to pilot programs in more experimental ways is still a good goal, however, especially with new ESEA guidelines about using practices proven effective through research.)
- As evaluators, we must go beyond system-wide analyses based on regression if we are to have an impact on school practice. Disaggregated data, in this case our comparisons of most effective and least effective school practices, have influenced school practice in WCPSS more than the system trends. This, of course, was enhanced through the addition of some qualitative analysis. A second example is summarizing the number of students moving down, as well as up, to grade level standards. This has influenced schools to fit slightly higher scoring students into ALP as room allowed, and may influence the way eligibility is determined as well. Often descriptive analyses are as valuable to practitioners as more sophisticated statistical analyses. Mixed method designs may yield the best blend to encourage use of findings.

REFERENCES

Baenen N., Yaman K., & Lindblad, M. (2002). The Accelerated Learning Program (ALP) 2000-01: Student Participation and Effectiveness. (Evaluation and Research Report No. 02.09) Raleigh, NC: Wake County Public School System.

Holdzkom, D. (2002). Summer School in the Wake County Public Schools: An Evaluation of the 2001 Program. (Evaluation and Research Report No. 02.07) Raleigh, NC: Wake County Public School System.

TM034218



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EFF-089 (3/2000)