



DIVISION OF ACCOUNTABILITY AND RESEARCH

'Fifth Block' Evaluation: Summer 2010

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Background

Program Description

The Aurora Public Schools implemented an extended school year program called 'Fifth Block' in June of 2008. It was offered a second time during June of 2009 and a third time during June of 2010. The program was developed based on studies and policy research that indicate adding a significant amount of instructional time will impact student achievement (Zimmerman, 1998). The research also indicates that it is not time alone that yields the greatest results. Time must be coupled with high-quality instruction (Time for Change Research Report, 2005).

The program consists of 23 days of additional instruction for students who have demonstrated academic growth during the previous school year but need more time to become proficient. The classes, with a maximum student/teacher ratio of 25 to 1, focus on math and literacy with science and social studies integrated. Keys to the potential success of fifth block were known to include well-trained, experienced teachers, appropriate curriculum and adequate physical facilities. Building administrators are charged with hiring Fifth Block staff that is provided professional learning prior to the start of Fifth Block. Students attend class at their home school with the exception of students at grades 5 and 8 who attend fifth block at their feeder middle and high school. Transportation and the nutrition services program are provided at all buildings.

Student Selection

To maximize the 23 days of instruction, fifth block is designed for students who demonstrated evidence of growth during the previous academic year and who are in need of additional instruction. Other criteria include one year of continuous enrollment in APS with consistent attendance. Using data provided by the Division of Accountability and Research, each school identifies those students that they believed would benefit most from the additional time and quality instruction.

Evaluation Method

The purpose of this evaluation is to provide an assessment, both quantitatively and qualitatively, of the impact of Fifth Block on student achievement. Additionally, the information gathered will be used by the district Fifth Block Committee to make recommendations for any future implementation of Fifth Block.



The quantitative analysis focuses on the demographics of the student population served by Fifth Block along with the results of surveys given to parents, principals and teachers. Secondly, we examine the percentage of students that participated in Fifth Block multiple years. Finally, we examine the CSAP growth percentiles of students that participated in the 2008 and 2009 Fifth Block programs. This data provides us with a measure of academic growth that occurred for Fifth Block students compared to non-participants.

Qualitative analyses include the results of open-ended responses obtained from the parent, principal, and teacher surveys. A final analysis is included that examines the fiscal impact of Fifth Block.

Participant Demographics

A total of 3,159 students completed the Fifth Block session during June of 2010. In 2010, Fifth Block participants closely resembled the overall 2009-2010 K-12 demographics. A total of 895 students participated in Fifth Block during 2008 and 2009 (i.e. 29.1% of 2008 participants). Similarly, 947 students participated in Fifth Block during 2009 and 2010 (i.e. 28.7% of 2009 participants). A total of 305 students participated in Fifth Block all three years that it has been offered.

Table 1. Student Demographics

Ethnicity	Summer 2008		Summer 2009		Summer 2010	
	District 07-08*	5 th Block	District 08-09*	5 th Block	District 09-10*	5 th Block
Afr. Amer.	20.0%	18.6%	21.1%	16.9%	21.2%	19.0%
Asian/PI	4.0%	2.7%	4.4%	3.4%	4.8%	4.5%
Hispanic	50.5%	65.6%	52.1%	65.3%	52.5%	55.2%
Nat. Amer.	0.9%	0.8%	0.9%	0.8%	0.9%	0.7%
White	24.5%	12.2%	21.5%	13.6%	20.6%	20.6%
F/R lunch	55.9%	75.4%	64.2%	71.3%	66.2%	67.5%
ELL	37.3%	56.3%	38.2%	55.0%	39.0%	38.6%

Note. *District values obtained from official October count report and include all grades. ELL: reflects NEP/LEP designations only.

The students selected for participation in the 2010 Fifth Block program were targeted based on CSAP performance that generally indicated a need for additional time (see Table 2). Specifically, the percentage of Fifth Block students scoring *partially proficient* or *unsatisfactory* on the 2009 CSAP was 55% in reading, 69% in writing, and 59% in Math.



Table 2. Fifth Block Students (Summer 2010): 2009/2010 CSAP Proficiency

Prof. Level	Reading		Writing		Math	
	2009	2010	2009	2010	2009	2010
Unsatisfactory	25.3%	23.0%	13.7%	12.6%	23.9%	25.6%
Part Proficient	30.1%	31.6%	55.3%	56.1%	34.6%	31.6%
Proficient	42.6%	43.1%	29.1%	29.0%	30.8%	31.6%
Advanced	1.9%	2.4%	2.0%	2.3%	10.7%	11.3%

Note. All data reflects valid scores only; no scores are excluded.

Additional criteria for participation were related to a low number of discipline referrals and consistent attendance. The majority of Fifth Block participants received no office referrals during the 2009-2010 school year. Similarly, during the course of 2010 Fifth Block the total number of referrals reported in Infinite Campus was nineteen which indicates that less than 0.4% of all Fifth Block students received a referral during this time period (see Table 3).

Table 3. Fifth Block Students: % with Office Referrals

# of Referrals	2007-08		2008-09		2009-10	
	Overall	5 th Block	Overall	5 th Block	Overall	5 th Block
0	77.9%	99.7%	79.8%	99.8%	83.3%	99.6%
1	12.1%	0.3%	10.5%	0.2%	9.8%	0.3%
2	4.0%	0.0%	4.7%	0.0%	2.8%	0.03%
3+	6.0%	0.0%	5.0%	0.0%	4.0%	0.06%
Total:	100.0%	100.0%	100%	100%	100%	100%

Note. Only thirteen students were recorded as receiving referrals during 5th block (2010); 2009: n=7, 2008: n=9. For 2010, nine incidents were due to disobedience which reflects approximately half of all referrals. The overall numbers reflect referral rates for 5th block students during the prior school year.

The attendance rates for 2010 Fifth Block participants exceeded 90% during the duration of the program. The most accurate attendance information is for the final ten days of the program as some students were enrolled and/or flagged but failed to participate early on in the Fifth Block program (see table 4).



Table 4. Final Ten Day Attendance: Fifth Block (Summer 2010)

Level	Final 10-Day Attendance		
	2008	2009	2010
Elementary	93.6%	92.4%	93.9%
K-8	94.2%	95.3%	92.3%
Middle	92.4%	89.4%	86.2%
High	91.2%	93.3%	95.9%
District Totals	93.1%	92.0%	92.2%

Note. All data obtained from IT attendance reports. Please note 2010 data includes 9th grade transition students and special AGATE programs at Side Creek and Montview elementary schools due to common scheduling with IC 5th Block calendar.

Assessment Performance

CSAP Growth: Fifth Block 2008 & 2009

The Colorado Growth Model provided us with the opportunity to examine the longer term impact of Fifth Block participation on achievement for 2008 and 2009 program participants. The Growth Model compares each student's performance to students in the same grade throughout Colorado who had similar CSAP scores in past years, and calculates the individual student growth percentile (CDE, 2009). Tables 5 and 6 presents the median growth percentiles from the spring CSAP by grade for 2008 and 2009 Fifth Block students and their non-participating peers who were continuously enrolled in the district for one year.

The results indicate that for Math, the Fifth Block grade level growth percentiles exceeded that of non-participants at all grades except 4th for both 2009 and 2010. For reading, the results were mixed for year one (table 5), although all gains exceeded losses. For year two (2009 5th block participants; table 6), 5th block participants exceeded the overall comparison group in all cases except for 7th grade. Last, in 2010, writing scores of 5th block participants exceeded the comparison group performance at all grades except for 8th.



Overall, the 2010 CSAP growth percentiles obtained for 2009 Fifth Block participants for math, reading and writing exceeded both non-participants growth percentiles and were typically above the state median growth percentile of 50. The replication of accelerated growth percentiles in 5th block participant's between-years serves as an additional indicator of program effectiveness.

Table 5. 5th Block Median Growth Percentiles (2009) by Grade (Summer 2008)

Grade	Math			Reading			Writing		
	Overall	5 th Block	Diff.	Overall	5 th Block	Diff.	Overall	5 th Block	Diff.
4th	53	50	-3	44	40	-4	50	47	-3
5th	56	62	+6	53	58	+5	57	65	+8
6th	60	66	+6	46	56	+10	49	53	+4
7th	60	70	+10	56	53	-3	49	57	+7
8th	64	74	+10	57	58	+1	56	60	+4
9th	58	70	+12	61	65	+4	47	57	+10
10th	50	64	+14	53	51	-2	50	49	-1
District:	57	62	+5	53	52	-1	51	55	+4

Note. For Math, 85% of Fifth Block growth percentiles exceeded that of the overall grade percentiles. For Writing, this was true for 70% of grades and for Reading this was true for 57% of grades. Overall values exclude 2008 Fifth Block participants.

Table 6. 5th Block Median Growth Percentiles (2010) by Grade (Summer 2009)

Grade	Math			Reading			Writing		
	Overall	5 th Block	Diff.	Overall	5 th Block	Diff.	Overall	5 th Block	Diff.
4th	51	48	-3	47	49	+2	48	49	+1
5th	58	67	+9	54	56	+2	56	63	+7
6th	56	57	+1	47	56	+9	46	56	+10
7th	47	48	+1	57	56	-1	49	50	+1
8th	57	64	+7	58	61	+3	58	56	-2
9th	52	59	+7	47	50	+3	51	58	+7
10th	45	55	+10	40	46	+6	47	50	+3
District:	52	56	+4	50	54	+4	51	54	+3

Note. Overall values exclude 2009 Fifth Block participants. All obtained decimal values were rounded up.



Parent Survey Results

Surveys were sent to the parent(s) of students along with the students' Fifth Block report card. For 2010, responses were received from 457 households. Results of the survey are presented in Table 7.

Table 7. Parent Survey Responses

Question	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree	Agree/ Str. Agree	Change 09 to 10
1. My child's school provided me sufficient information throughout 5th block.	5.1%	7.5%	12.3%	46.5%	28.6%	75.1%	-2.3%
2. I believe that 5th block was academically beneficial for my child.	1.8%	2.0%	8.6%	43.2%	44.5%	87.7%	-0.2%
3. I believe that 5th block was a positive experience for my child.	2.0%	1.3%	5.0%	43.2%	48.5%	91.7%	0.0%
4. I understand why my child was selected for participation in 5th block.	1.1%	5.5%	7.2%	50.0%	36.2%	86.2%	-5.0%
5. The meals that were provided were an important part of my students 5th block experience.	3.8%	3.8%	13.9%	43.8%	34.7%	78.5%	+2.9%
6. If 5th block were offered next year, I would want my child to participate.	1.8%	2.4%	8.6%	32.7%	54.5%	87.2%	+0.7%

Note. 5th Block 2010: A total of 457 parents responded. 39% responded in Spanish; 61% responded in English. 5th Block 2009: n=432.

Of parents that responded to the survey, the majority reported they believed Fifth Block was academically beneficial for their child (88% agreed; 2009: 88%). Furthermore, 87% percent responded that they would want their child to participate if Fifth Block were offered the following year (2009: 87%; no change). The following themes are representative of many parent comments:

- Most parents continue to support the concept of Fifth Block.
- Parents would like more communication on their child's progress during Fifth Block.

Principal Survey Results

An electronic survey was made available to principals after the completion of Fifth Block. Approximately 33% of principals responded to the survey. The primary purpose of the principal survey was to gather comments/recommendations about: what was



their overall perception of the success of Fifth Block in improving student achievement; what worked well during Fifth Block; what challenges they encountered; and what suggestions they had for improving Fifth block. Responses to a question on improvement of student achievement are shown in Table 8.

Table 8. Principal Survey Responses

Question	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree	Agree/ Str. Agree	Change 09 to 10
My students benefited academically from attending 5th block.	--	6.7%	--	66.7%	26.7%	93.3%	+18.3%

Note. 2010: Total n=15; 2009: total n=24.

The majority of principals completing the survey responded that they believed students benefited academically from attending Fifth Block (93%) which represents a 18% increase from last year's results. From open-ended questions, Principals reported the following:

- Most principals reported 5th Block went smoothly; in addition, they believed strong instruction was provided by teachers.
- Principals experienced difficulty filling classes to capacity and maintaining enrollment through the end of Fifth Block.

Teacher Survey Results

An electronic survey was made available to teachers after the completion of Fifth Block. A total of 90 teachers responded to the survey in 2010. The primary purpose of the teacher survey was to gather comments/recommendations about: what was their overall perception of the success of Fifth Block in improving student achievement; what worked well during Fifth Block; what challenges they encountered; and what suggestions they had for improving Fifth block.



Responses to a question on improvement of student achievement are shown in Table 9.

Table 9. Teacher Survey Responses

Question	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree	Agree/Strongly Agree	Change 08 to 09
My students benefited academically from attending 5th block.	3.4%	--	6.7%	56.2%	33.7%	89.9%	-1.3%

Compared with the principal survey, a similar percentage of teachers completing the survey responded that they believed students benefited academically from attending Fifth Block (teachers: 90%; principals: 93%). From open-ended questions, teachers reported that the following worked well during Fifth Block:

- Small class size
- Math curriculum
- Pacing guides
- The breakfast and lunch program

In regard to challenges, the most frequently mentioned by teachers were the following:

- Range of skills and knowledge of students was challenging for most teachers.
- Keeping some students engaged in learning for the entire day and/or Fifth Block session (attendance and behavior issues arose from lack of engagement).
- Some students did not need both literacy and math support.

Suggestions by teachers on ways to improve Fifth Block generally addressed the challenges noted above. Other suggestions given included:

- Choice of half or whole day, or shorten the school day – possibly offer a week off before Fifth Block begins or move to July. Also, many teachers recommended that the length of Fifth block be changed to four weeks instead of five.



5th Block Program Budget

Table 10. Cost Analysis for Fifth Block

Expense	Description	2008	2009	2010	Change (1-Yr)
June – Inst. Salaries/Benefits	salaries, PERA, Medicare	\$603,900	\$666,539	\$695,941	+\$29,402
July (est.) – Inst. Salaries/Benefits	salaries, PERA, Medicare	\$603,900	\$481,654	\$540,193	+\$58,539
Assessment	printing/MAP Testing*	\$2,310	\$44,053	\$2,464	-\$41,589
Instruction	curricular support	\$32,500	\$67,129	\$75,335	+\$8,206
Transportation	fuel, maintenance, salaries/benefits	\$72,042	\$62,406	\$41,110	-\$21,296
Nutrition Services	loss experienced by enterprise fund	\$21,100	\$0	\$5,215	+\$5,215
Utilities	gas/electric	\$73,476	\$125,000	\$100,000	-\$25,000
Total Costs for 5th Block:		\$1,409,228	\$1,446,781	\$1,460,258	+\$13,477
Per Pupil Cost for 5th Block:		\$431.09	\$438.55	\$462.25	+\$23.70

Note. The per pupil cost for Fifth Block was derived based on the total number of grade reports issued (i.e., 2008: 3,269; 2009: 3,299).

*: MAP testing didn't occur during 5th block in 2008 and 2010. The cost for MAP administration was \$13.50 per student. For nutrition services 2009, revenues exceeded costs. All costs reflect estimates received from respective departments/divisions.



Table 11. School Fifth Block Slot Availability with Enrollment (2010)

School	Fifth Block Count	Title I / Additional	Total	Initial Day Enrollment	Final Day Enrollment	Final Day % Enroll.
Total (All Schools):	2825	1225	4050	3744	3270	80.7%
Altura Elementary School	25	50	75	65	51	68.0%
Arkansas Elementary School	50	0	50	50	35	70.0%
Aurora Frontier K-8	100	0	100	88	61	61.0%
Boston K-8	75	50	125	121	95	76.0%
Century Elementary School	50	0	50	53	47	94.0%
Clyde Miller Elementary School	125	0	125	120	107	85.6%
Crawford Elementary School	25	50	75	86	62	82.7%
Dalton Elementary School	50	0	50	46	40	80.0%
Dartmouth Elementary School	50	0	50	50	47	94.0%
Elkhart Elementary School	75	50	125	123	85	68.0%
Fletcher Primary	0	25	25	23	22	88.0%
Fulton Elementary School	25	50	75	71	52	69.3%
Iowa Elementary School	50	0	50	48	44	88.0%
Jewell Elementary School	50	0	50	46	40	80.0%
Kenton Elementary School	25	50	75	64	59	78.7%
Lansing Elementary School	25	50	75	71	59	78.7%
Laredo Elementary School	50	50	100	95	82	82.0%
Lyn Knoll Elementary School	25	25	50	36	32	64.0%
Montview Elementary School	75	50	125	122	110	88.0%
Murphy Creek K-8	100	0	100	54	53	53.0%
Paris Elementary School	75	50	125	120	99	79.2%
Park Lane Elementary School	25	50	75	61	48	64.0%
Peoria Elementary	50	50	100	98	82	82.0%
Sable Elementary School	50	50	100	95	72	72.0%
Side Creek Elementary School	75	0	75	79	73	97.3%
Sixth Avenue Elem. School	50	50	100	105	79	79.0%
Tollgate Elementary School	50	0	50	56	44	88.0%
Vassar Elementary School	50	0	50	50	45	90.0%
Vaughn Elementary School	50	50	100	93	71	71.0%
Virginia Court Elem. School	50	50	100	98	92	92.0%
Wheeling Elementary School	50	50	100	93	86	86.0%
Yale Elementary School	50	0	50	48	40	80.0%
Total (Elementary/K-8):	1675	900	2575	2428	2014	78.2%



School	Fifth Block Count	Title I/ Additional	Total	Initial Day Enrollment	Final Day Enrollment	Final Day % Enroll.
Aurora Hills Middle School	125	0	125	140	121	96.8%
Fletcher Intermediate	25	25	50	51	48	96.0%
Columbia Middle School	75	0	75	--	61	81.3%
East Middle School	100	0	100	153	107	107.0%
Mrachek Middle School	100	0	100	100	77	77.0%
North Middle School	100	100	200	146	104	52.0%
South Middle School	100	100	200	170	148	74.0%
Aurora West College Prep	75	100	175	193	182	104.0%
Total (Middle School):	700	325	1025	1014	848	82.7%
Aurora Central High School	100	0	100	54	59	59.0%
Gateway High School	100	0	100	136	107	107.0%
Hinkley High School	100	0	100	116	93	93.0%
Rangeview High School	100	0	100	--	95	95.0%
William Smith High School	50	0	50	57	54	108.0%
Total (High School):	450	0	450	363	408	90.7%

Note. Fifth Block Count: reflect general fund slots. General fund and Title I/Additional values obtained from Fifth Block funding – April 16 document. Red highlights indicate enrollment less than 75%; green indicates enrollment greater than 90%.



Summary

- The Fifth Block Program was provided to 3,159 students following the 2009-2010 school year. (Fifth Block 08-09: 3,299; 07-08: 3,075). The program consisted of 23 days of additional instruction for students who had demonstrated academic growth during the previous school year but needed more time to become proficient.
- The Fifth Block Program (2010) participants demographics are aligned with those found in the overall 2009-10 district enrollment. In addition, participants typically performed at the partially proficient or unsatisfactory level on the 2009 CSAP (55% reading; 69% writing; and 59% math) and the majority of students had received no office referrals during the 09-10 academic year (i.e. 83% had no office referrals).
- Overall attendance rates during Fifth Block (2009) were high (i.e., greater than 90%) with a limited number of office referrals (i.e., thirteen total).
- 29% of Fifth Block Participants from 2009 were reenrolled in Fifth Block in 2010. A total of 305 students participated in Fifth Block all three years in which it's been offered.
- Historical analysis of 2008/2009 Fifth Block participants revealed growth percentiles that exceeded that of their matched grade peers for Math, Reading and Writing (i.e. for 21 of 24 grades). In most cases, observed growth exceeded the state median growth percentile of 50.
- Survey results obtained from principals, teachers, and parents reflect the belief that students benefited academically from attending Fifth Block (88%-93% agreement). Principal's agreement rates increased between-years by 18% while teacher/parent agreement rates remained stable.
- A preliminary cost analysis for 2010 Fifth block indicates a total operating expense of \$1,460,258 or per pupil cost of \$462.25. This reflects instructional salaries/benefits, assessment costs, curricular support, transportation, nutrition services, and utilities. The program costs increased by \$13,477 between-years.
- Recommendations for improvement that were gathered from this evaluation will be provided to the Fifth Block committee for the refinement of any future Fifth Block programming.



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