An Evaluation of the Implementation and Efficacy of The Grow Network/McGraw-Hill's Personalized Study Guides in Arizona School Districts

Hezel Associates, April 2008

Executive Summary

An independent third-party evaluation completed in 2008 confirms the important role that the Arizona Personalized Study Guide Program can play in improving student achievement.

The research study, conducted by Hezel Associates, evaluated the effectiveness of the Personalized Study Guide Program, as measured by student achievement on state assessments. The study evaluated data for students in three diverse Arizona districts who failed to meet passing levels on the exit-level Arizona Instrument to Measure Standards (AIMS) in Spring 2007 and then retook the tests in Fall 2007.

Based on a rigorous statistical evaluation of Arizona students' performance in three subjects, Hezel Associates found that students participating in this personal learning program experienced **higher score growth and pass rates** than did similar students who did not participate, as evidenced by **statistically significant** differences across the groups.

Key findings include

1. For students who took retests in all three subjects, students who used the Personalized Study Guides passed significantly more retests than comparable students who did not use the Guides. Of this population, **46% of Guide users** passed at least two of the three retests, compared to **19% of nonusers**.

2. Across all students taking one or more retests, students reporting moderate or high use of the Guide achieved **69% better score growth in Math** and **50% better score growth in Writing** compared to students reporting no or low use.

3. Important statistically significant results were shown among Hispanic students, as **Hispanic participants passed Reading and Writing 33% more often** than Hispanic nonparticipants.

4. Substantial qualitative effects were seen as well, with **more than 90% of student participants** reporting that the program helped increase their understanding of Arizona standards.

These results confirm the strength of this unique instructional approach. Leveraging cutting-edge print and Web technology, The Grow Network developed the Arizona Personalized Study Guide Program based upon a strong foundation of educational research:

- The program enables teachers to successfully differentiate instruction for all students, which is a proven instructional strategy for assisting diverse learners in the mastery of rigorous standards.
- The program helps students take control of their own learning by making academic expectations clear and providing individualized instructional guidance. All strategies have been shown to have dramatic impact on student achievement.
- Parents can use the program to understand their children's strengths and needs, enabling them to play key roles in monitoring and supporting their children's progress.

For more information about The Grow Network/McGraw-Hill,
call 866-539-0439 or visit: http://info.grow.net.

Report

An Evaluation of the Implementation and Efficacy of Grow's Personalized Study Guides in Arizona School Districts

Prepared for

The Grow Network / McGraw Hill

3/28/2008

TABLE OF CONTENTS

INTRODUCTION

The Grow Network/McGraw Hill is committed to the successful implementation of the Personalized Study Guides Program and, to that end, has asked Hezel Associates to evaluate the effectiveness of the program in achieving the goal of increasing student achievement as measured by state assessments. In this project we are studying both implementation and student achievement in selected school districts in Arizona.

The evaluation findings will both inform the project's future design and implementation and offer quantitative empirical evidence to illustrate its impact on student achievement.

This report provides preliminary findings based on the data of the use of McGraw Hill's Personalized Student Study Guide and the scores on Arizona's Instrument to Measure Standards (AIMS) from tests of high school students who failed to meet passing levels in Spring 2007 and retook the test(s) in Fall 2007. Test results for selected students were provided to Hezel Associates as were student Study Guide usage surveys developed by the Grow Network and administered to the students during December 2007. Survey result data were merged with test results in order to investigate the impact of Study Guide use on student achievement. Information discussed below is derived from these two sources. At no time did we know the identities of any of the students.

METHODS

Grow has selected the following districts and their high schools for the program evaluation. These districts all received tutoring funds in 2006-07 and/or 2005-06 school years. They are all large to mid-sized school districts with diverse student populations (based on ethnic and socio-economic backgrounds), and represent diverse geographical regions across the state

- Agua Fria High School District
- Peoria High School District
- Yuma High School District

During Fall 2007, Grow delivered Grade 11 and 12 Study Guides to the school districts being evaluated. During December 2007, Grow administered surveys to students in the participating districts, obtaining information about their use of the Guide, including whether they used their Guides with others, how extensively they used them, and the students' evaluations of the impact of Guide use on preparing them for retaking the AIMS test.

For students failing the AIMS tests in Spring 2007, AIMS tests were administered again in Fall 2007. These test results were used to measure the effectiveness of the Study Guide Program, comparing test results of students using the Guide and those who were completed.

In summary, in this initial evaluation, Hezel Associates investigates students' evaluations of the implementation, as well as the impact, of the Personalized Study Guide Program on their performance on the AIMS test. The evaluation utilizes a multi-method approach including surveys and test results.

- Student surveys: Paper surveys of students addressed the following:
  - Engagement with academic curricula in preparation for the AIMS
  - Their perceptions of the helpfulness of the Study Guide Program in their learning
  - Desire to increase learning efforts

- Student Achievement: AIMS data from Reading, Writing, and Math tests completed in Spring 2007 and Fall 2007 provided by Grow.

Analysis of survey data involves descriptive statistics to summarize students' perceptions of the Standards and their academic engagement, confidence and effort. Available Student AIMS data was analyzed using a statistical analysis of the test score gains of students. Regression analysis of AIMS test results compares Guide students and non-guide students' results to determine the program's effect.

FINDINGS

Using data provided by Grow, Hezel Associates analyzed the results of both survey responses and test results for 841 students with complete information. There were 353 (42.3%) students from the Peoria Unified School District, 310 (37.2%) from Agua Fria Union, and 171 (20.5%) from Yuma Union School District. There were slightly more male students (n=467, 55.5%) than female students (n=374, 44.5%).

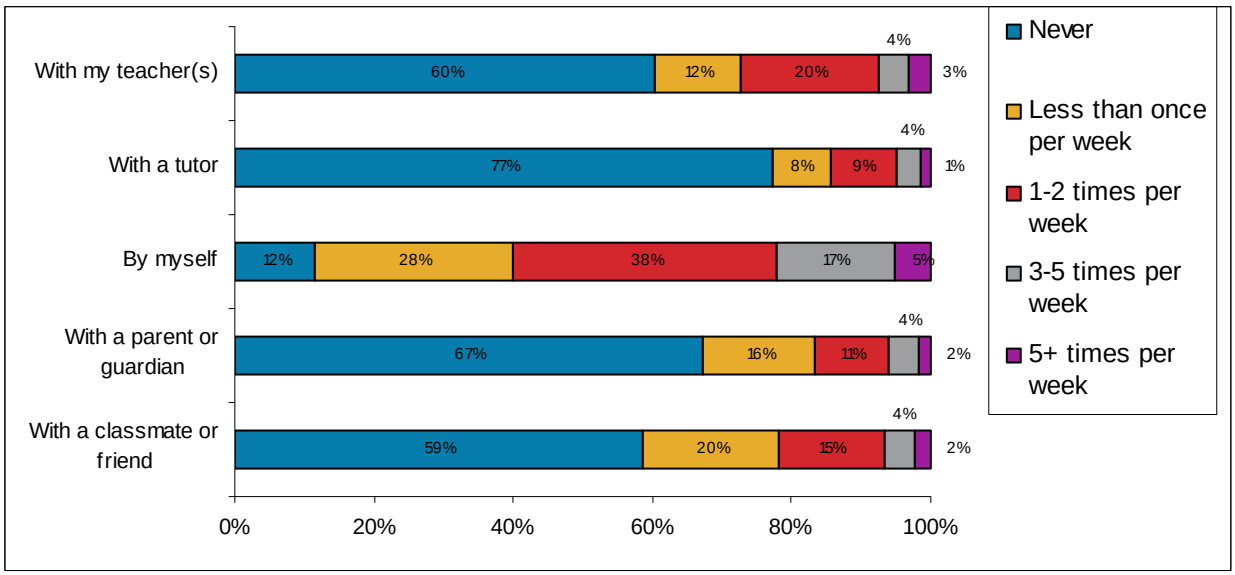
A. USE OF GUIDE:

From the survey conducted with students in December 2007, 585 students (69.6%) reported that they used their Study Guides to prepare for one of the AIMS HS tests. Additional questions on the survey elicited information on how the Guides were used. Students responded to questions on whether and how frequently they used their Guides in collaboration with others and on how extensively they used their guides. In addition, students were asked to evaluate the impact of the use of their Guides on taking the AIMS test.

1. Use with others

Figure 1 summarizes students' reports about whether they spent time reviewing their Study Guides with other people. Only 145 (27.4%) students reported using their guides with teachers 1-2 times per week or more. Smaller numbers used their guides as often with other adults, with 88 (16.7%) working with parents and 75 (14.4%) with tutors. Students also reported using their Guides this frequently with classmates or friends with 117 (22.0%) reporting this use. But the largest number, 341 (60.1%), mentioned using the Guide by themselves 1-2 times per week or more.

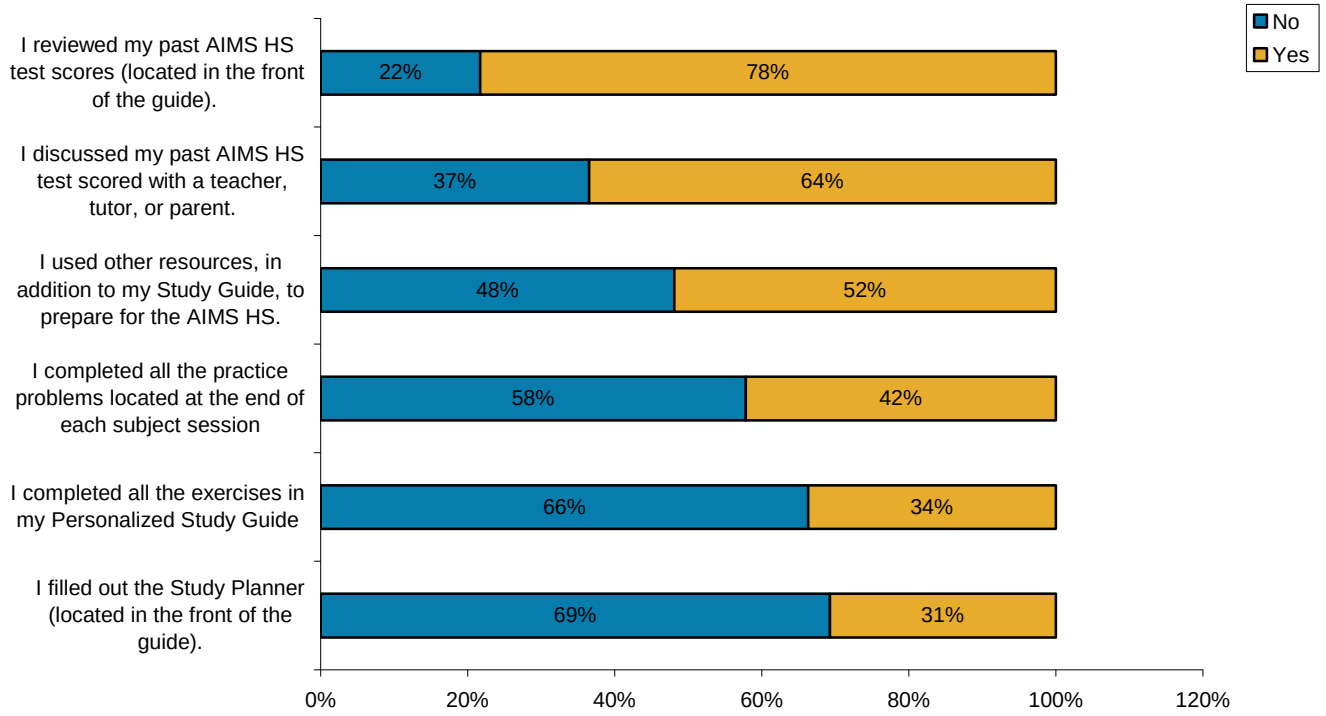
Figure 1. Use of Study Guide with others:



2. How was guide used

Figure 2 summarizes students' responses to questions about how they used their guides. Although 447 (78.3%) students reported that they reviewed their scores in the Guide and 365 (63.5%) discussed their past scores with a teacher, tutor, or parent, fewer numbers reported more extensive use of the guide in preparing for retaking the AIMS test. Only 176 (30.7%) filled out the Study Planner, 192 (33.7%) completed all of the exercises in their Guide, and 242 (42.2%) completed all of the practice problems located at the end of each subject section. Furthermore, 296 (51.9%) reported using other resources in addition to their Study Guide to prepare for the test.

Figure 2. How was Guide used:



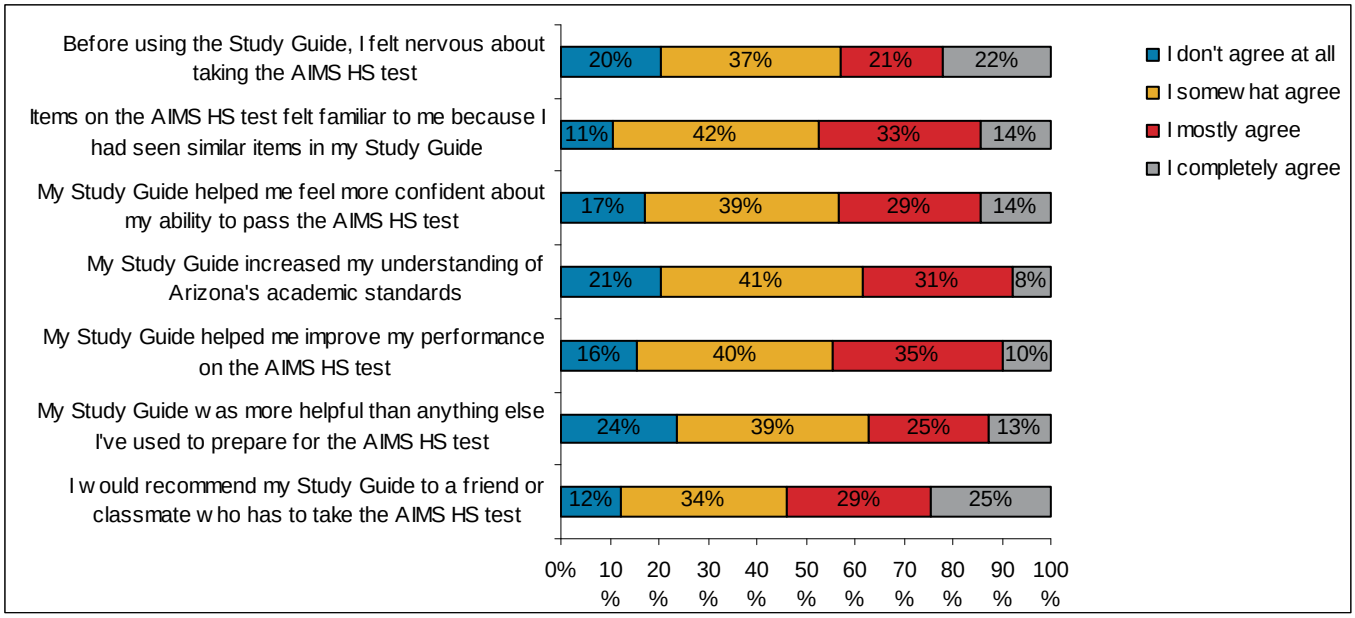
3. Effects of use of guide

Questions on the perceived effects of the use of guide were also posed to students. They were asked to what extent they agreed with a number of statements. Figure 3 summarizes the responses to these questions. Overall, the number of students reporting that they did not agree at all with the statements on whether use of the guide had effects on retaking the test was small.

In response to the statement, "Before using the Study Guide, I felt nervous about taking the AIMS HS test", 448 (79.7%) agreed at least somewhat, with 242 (43.1%) mostly or completely agreeing with the statement. Eighty-nine percent (n=506) agreed at least somewhat and almost half of the students (47.1%, n=267) mostly or completely agreed

that items on the AIMS felt familiar to them because they had seen similar items in their guides. High percentages of the respondents agreed that the study guide helped them feel more confident about their ability to pass the AIMS test (n=463, 82.8% agreeing somewhat and 243, 43.5% mostly or completely agreeing). Students using the Guide also expressed the opinion that it helped them improve their performance on the test with 470 (84.4%) agreeing somewhat and 247 (44.4%) mostly or completely agreeing. They also felt that it was more helpful than anything else they have used to prepare for the test, with three-quarters (n=431) agreeing at least somewhat and 210 (37.2%) agreeing mostly or completely. Finally, most would recommend use of the Guide to a friend or classmate who has to take the AIMS test. More than half (54%, n=305) mostly or completely agreed with the statement, with 496 (87.8%) agreeing at least somewhat.

Figure 3. Effects of use of Guide



4. Understanding strengths and weaknesses

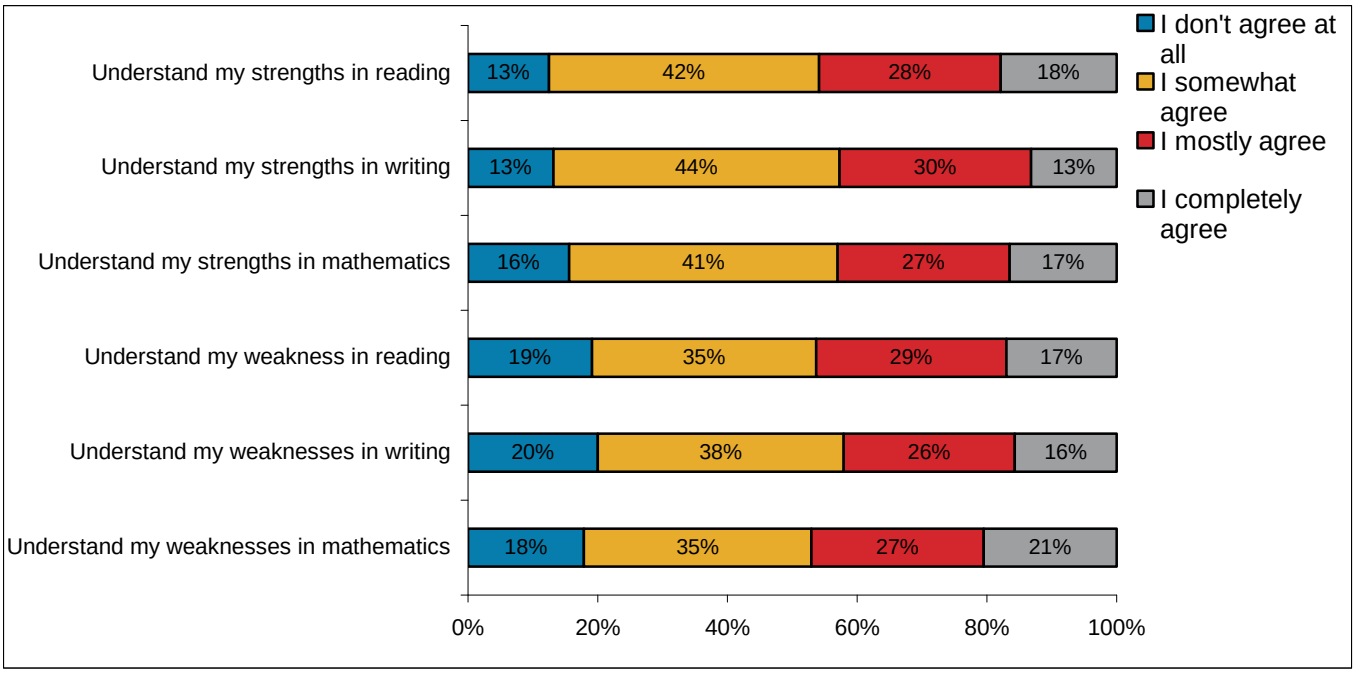
The final set of questions posed to students using the Guide concerned whether this use made them more aware of their strengths and weaknesses in the subjects in which they were being tested. For each statement, at least 80% of the students agreed at least somewhat, and at least 40% mostly or completely agreed that the Guide helped them understand their strengths and weaknesses in the subjects.

For those taking Reading tests, 322 (87.5%) agreed somewhat and 169 (45.9%) mostly or completely agreed that the Study Guide helped them understand their strengths in Reading. Eighty-one percent (n=304) agreed at least somewhat that it helped them understand their weaknesses in Reading, with 174 (46.3%) agreeing mostly or completely.

Similarly, 303 (86.8%) agreed at least somewhat and 149 (42.7%) agreed mostly or completely that the Guide helped them understand their strengths, 276 (80%) agreed at least somewhat and 145 (42.1%) agreed mostly or completely that the Guide helped them understand their weaknesses in Writing.

For those using their Guides to prepare for the AIMS math test, 357 (84.4%) agreed at least somewhat and 182 (43%) mostly or completely agreed that it helped them understand their strengths. For understanding their weaknesses in math, 349 (82.1%) agreed at least somewhat and 200 (47.1%) mostly or completely agreed that their Guides were helpful.

Figure 4. Understanding strengths and weaknesses



5. District use of Guide

We looked at implementation across the three school districts as reported by the students. Table 1 summarizes these results. Although students in all three districts reported a high percentage of implementation, there were differences, with a greater percentage of the students in Agua Fria Union School District (78.4%) reporting use of the Guide than in either Peoria Unified (66.6%) or Yuma Union (59.1%).

Students reported differences in how the Guides were used in the different school districts. In looking at whether Guides were used with others and how often, about a third of the students in the Agua Fria Union District mentioned that they used their Guides with their teachers as compared to students in the other two districts (Peoria Unified (23.5%) and Yuma Union (19.8%); chi square = 8.56, df=1, p=.014).

Two thirds of the students in Peoria Unified mention using the Guide by themselves, with about half of the students in the other two districts mentioning this type of use (Agua Fria Union (54.4%) and Yuma Union (57.7%); chi square = 8.43, df=1, p=.015).

When asked how they used the Guides, a smaller percentage (50.0%) of students in Yuma Union mentioned discussing their test scores with a teacher, tutor, or parent than did students in Peoria (65.4%) or Agua Fria (67.1%); (Chi square= 9.40, df=2, p=.009). More than a third (36.4%) of the students in Agua Fria Union school district reported that they filled out the study planner. This was a higher percentage than in either the Peoria Unified (26.2%) or Yuma Union (27.3%) districts; (chi square=6.44, df=2, p=.04).

Table 1. Student Reports of School District Study Guide Use

				χ^2
	Agua Fria Union	Peoria Unified	Yuma Union	
Use of Study Guide	78.4%	66.6%	59.1%	21.73***
With teachers	33.6%	23.5%	19.8%	8.56*
By themselves	54.4%	67.2%	57.7%	8.43*
Discussed scores with teacher, tutor, or parent	67.1%	65.4%	50.0%	9.40**
Filled out Study Planner	36.4%	26.2%	27.3%	6.44*

*** p<.001, ** p<.01, * p<.05

B. Changes in Test Scores from Fall 2007 to Spring 2007

We look first at AIMS HS test results for students taking Reading, Writing, and Math tests at each timepoint. For Reading, there were 430 students taking the AIMS test in both Spring and Fall 2007. For the spring test administration, the mean reading scale score was 648.90 (SD=22.33) with a range from 560 to 739. During both Spring and Fall 2007, 323 students took the writing test with a mean scale score in the spring of 649.41 (sd=33.91) with a range from 500 to 752. Math tests were administered to 502 students with a Spring mean scale score of 664.43 (16.03) with a range from 608 to 738. Results for these same students after the Fall 2007 test administration indicate significant improvements in all three scores. There was a 21.65 increase in mean reading scale score, a 37.72 point increase in mean writing scale score, and a 10.01 point increase in mean math scale score. Paired t-test comparisons confirm this significant improvement in scale scores for all three tests (see Table 2).

Table 2. Scale Score Differences in Spring and Fall

	Mean (SD)	t-test
Reading Scale Score		
Spring	648.90 (22.33)	-16.56 ***
Fall	670.55 (30.28)	
Writing Scale Score		
Spring	649.41 (33.91)	-19.43 ***
Fall	687.13 (39.52)	
Math Scale Score		
Spring	664.43 (16.03)	-13.07 ***
Fall	674.44 (21.43)	
*** p<.001		

Pass/fail variables for each test were also studied for the students who completed both the Spring 2007 and Fall 2007 tests. Of the 430 students who completed both Reading tests, 420 (97.7%) failed the Spring test and 211 (49.1%) failed the Fall test. Crosstabulation of the results at the two timepoints indicate significant change with 50% of those failing the Spring test passing the Fall test. For Writing tests, 315 (97.5%) of the 323 students who took tests at both timepoints failed the Spring test, whereas only 112 (34.7%) failed the Fall test. Of those failing in the spring, 203 (64.4%) passed in the Fall. Finally, for Math tests taken at both timepoints, 494 (98.4%) failed in the Spring, but only 320 (63.7%) failed in the Fall. Crosstabulations indicate that for those failing the test in the Spring, 174 (35.2%) passed in the Fall.

C. Effects of the Use of the Study Guide

1. Overall Use of Guide

We next looked at whether there was an impact of the use of the Study Guide on changes in scale scores. To investigate whether use of the Study Guide impacted Fall scale score results for the three subjects, linear regression analyses were conducted using mean scale scores as outcome variables. The individual subject scores from Spring were used as the baseline measures and were entered as covariates along with the grouping variable (used Guide versus did not use Guide). The inclusion of this Spring measure transforms the regression into an analysis of change in the dependent variable over time. Separate analyses were run for each subject (Reading, Writing, and Math). Results indicate that Fall scale score results are predicted by Spring scale score results for each subject. The addition of the variable indicating use of the Guide significantly predicts Fall Writing scale score above and beyond the results predicted by the Spring Writing score (b= 11.40, p< .01). This coefficient indicates that students using the Study Guide are more likely to show an increase in Writing scale score results than are students who did not use the Guide. Use of the Guide does not predict Fall scale scores for either Reading or Math, however. Regression coefficients for each analysis are displayed in Table 3.

Table 3. Regression of Fall 2007 AIMS HS Scale Score on Use of Study Guide

	Reading	Writing	Math
	b	*b*	*b*
Spring Scale Score	.67 ***	.64***	.82***
Use of Study Guide	4.12	11.40**	.41
*** p<.001, ** p<.01			

Investigation of pass/fail variables yields similar results. Crosstabulations of the use of Guide indicator variable with pass/fail variables for each subject were conducted. Once again, a greater percentage of those using the Guide (69.1%) passed the Fall Writing test as opposed to those not using the Guide (57.0%); (chi square=4.43, df=1, p=.04). In addition, although results for Reading and Math pass/fail variables were not significant they do indicate that Guide users do have a higher passing rate than do non-users. Table 4 summarizes the results for all three tests.

Table 4. Comparison of Passing Rates for Guide Users and Non-users

	Reading - ns	Writing *	Math - ns
Used Study Guide	53.2%	69.1%	38.5%
Did Not Use Study Guide	46.0%	57.0%	30.8%
Difference Between Users and Non-users	7.2%	12.1%	7.7%
Percent Advantage After Use of Guide	15.7%	21.2%	25%
* p<.05, ns=non-significant			

2. Frequency of Use of Guide

In addition to use of Guide, we also considered frequency of this use and its impact on test results. We used responses to three items (use with teacher, use with tutor, and use by themselves) to create a summary variable indicating frequency of Study Guide use. The range of scores for this new variable was from 1 through 15. We recoded this variable into a bivariate measure of usage. We classified scores from 1 through 5 as no/low usage and scores of 6 and above as moderate /high usage. Independent t-tests were run on change in scale score between Spring and Fall by this frequency of usage variable. Results indicate a significant difference in score growth for both Writing and Math for those students indicating moderate or high usage of the Guide. Table 5 shows these results. Writing scores increased, on average, 50.64 points from Spring to Fall for those reporting higher use of the Guide whereas those students with low usage increased only 33.7 points on average. Similarly, increases in students' math scores were significantly higher for those with more frequent use of the Guide (12.86 points compared to 7.61 points for non-users).

Table 5. Frequency of Usage

	Mean (SD)	t-test
Reading Scale Score Change		
Moderate/High Usage	21.91 (25.82)	.12 ns
No/Low Usage	22.26 (25.01)	
Writing Scale Score Change		
Moderate/High Usage	50.64 (37.43)	-3.90 ***
No/Low Usage	33.70 (26.97)	
Math Scale Score		
Moderate/High Usage	12.86 (19.03)	-3.05 **
No/Low Usage	7.61 (13.16)	
*** p<.001, ** p<.01		

3. Effects of Use of Guide for Those Taking All Three Tests

We looked at whether the use of the Guide was beneficial for students taking all three tests in Fall 2007. There were 164 students who took Reading, Writing, and Math tests in Fall 2007. We computed the number of tests these students passed and investigated their reports of Guide use. The mean number of tests passed by these students was 1.14 with a range from 0 to 3. Guide use was reported by 104 (64%) of these students. An independent t-test was run comparing the mean number of tests passed for users and non-users. There was a significant difference found between the two groups, with a higher mean number of tests passed by Guide users (1.30) than non-users (.85). Crosstabulations show a higher percentage of Guide users (45.7%) passed two or three tests than did non-users (18.7%).

Table 6. Number of Tests Passed By Guide Use for Those Taking All Three Tests

	Mean (SD)	t-test
Use of Guide		
Used Guide	1.30 (1.10)	-2.67 **
Did Not Use Guide	.85 (.96)	
** p<.01		

D. Effects of Use of Guide for Hispanic Students

1. Overall Use of Guide

Of those students who were surveyed, 414 (49.6%) were Hispanic or Latino. We looked at both their test results and the impact of the use of the Guide on those results. Regression results for this subgroup of students were consistent with those for the whole group, with Fall scale scores being predicted by Spring scores for all three tests and the use of Guide predicting an increase in Writing score beyond that attributed to the Spring score. These results are summarized in Table 6.

Table 7. Regression of Fall 2007 AIMS HS Scale Score on Use of Study Guide for Hispanic Students

	Reading	Writing	Math
	b	*b*	*b*
Spring Scale Score	.67 ***	.56***	.87***
Use of Study Guide	4.49	10.52**	-2.11
*** p<.001, ** p<.01			

Investigation of pass/fail variables for Hispanic students was also conducted and is summarized in Table 7. Consistent with the results for the whole group, there were significant differences between pass/fail rates for students who used the Guide for Writing and those who did not. Two-thirds (66.7%) of those using the Guide passed the Writing test as opposed to half of those who did not use the Guide. Although not statistically significant, differences in passing rates for those taking the Reading test show the same trend. Almost half (48.8%) of those using the Guide passed whereas just over a third (36.8%) not using it did so. Fairly equal percentages of students using (30.6%) and not using (28.2%) the Guide passed the Math test. Hispanic students who used the Guide for Reading and Writing clearly had an advantage over those who did not in passing these two tests.

Table 8. Comparison of Passing Rates for Hispanic Guide Users and Non-users

	Reading +	Writing *	Math – ns
Used Study Guide	48.8%	66.7%	30.6%
Did Not Use Study Guide	36.8%	50.0%	28.2%
Difference Between Users and Non-users	12.0%	16.7%	2.4%
Percent Advantage After Use of Guide	32.6%	33.4%	8.5%
* p<.05, + p<.1, ns=non-significant			

2. Frequency of Use of Guide

We also considered frequency of the use of the Guide and its impact on test results for the Hispanic students. Using the usage indicator variable (a sum of use with teacher, tutor, and by themselves), independent t-tests were run to determine if there were differences in change in scale score between no/low usage and moderate/high usage students. Results indicate a significant difference in score growth for Writing and a trend towards higher score growth for Math for those students indicating moderate or high use of the Guide with others. Table 8 shows these results. Writing scores increased, on average, 50.68 points from Spring to Fall for those reporting higher use of the Guide whereas those students with low usage increased only 33.8 points on average. Similarly, increases in students' math scores were higher for those with more frequent use of the Guide (10.85 points compared to 7.36 points).

Table 9. Frequency of Usage for Hispanic Students

	Mean (SD)	t-test
Reading Scale Score Change		
Moderate/High Usage	21.30 (24.76)	-.82 ns
No/Low Usage	18.02 (24.24)	
Writing Scale Score Change		
Moderate/High Usage	50.68 (39.32)	-2.77 **
No/Low Usage	33.76 (27.61)	
Math Scale Score		
Moderate/High Usage	10.85 (16.76)	-1.60 +
No/Low Usage	7.36 (11.26)	

**** p<.01, + < .1**

CONCLUSIONS AND RECOMMENDATIONS

This report provides preliminary findings based on test retest data of AIMS high school test results for students who failed to meet passing levels in Spring 2007 and retook the test(s) in Fall 2007 and the relationship of that data to survey data on the use of the McGraw Hill personalized Study Guide by those students. Survey result data were merged with test results in order to investigate the impact of Study Guide use on student achievement. Information discussed below is derived from these two sources. The findings suggested some conclusions and recommendations which must be tempered by the caveats that follow:

- The sample was relatively small,
- We were unable to control for variables such as what other instruction these students received in the same time period, and
- How much training the teachers received in the use of the guides.

The first conclusion based on the survey findings is that the Guide was not being uniformly utilized by the teachers within or across school districts. The recommendations emerging from these findings were:

- Training should emphasize the importance of teachers using the guides with students on a regular basis during the test prep time period.
- Students need more guidance on how to use the guide to increase the likelihood they will complete practice problems, complete exercises and fill out the study planner.
- Follow-up should be done to insure that schools that purchase the guides actually use them with target students.

The analysis of student test results and survey results lead to some interesting findings and conclusions. Caveats notwithstanding, the findings indicated that for this sample of students, instructional interventions yield improved test performance. Regardless of the intervention, i.e., study guide use or other instructional modalities, test performance for all subgroups of students who had failed to pass any test in Spring 2007 made significant gains in both scale scores and passing percentages in the fall administration. In this case we also found significantly better results for students who used the study guide in writing in their retest scores than "non-users". Furthermore, for students who report more frequent Guide use, we found significantly better results in both writing and math.

Additional analysis of student test and survey results for the Hispanic students showed similar patterns of significantly increased scores for those using the Guide than for non-users as compared to the complete group of students. However, comparing the increases in passing rates for the two groups emphasizes the advantage that the use of the Guide provides for the Hispanic students.

The recommendations emerging from these findings were:

- Examine the differences in the use of the study guides for the three subjects to determine if there are any systematic differences in the pedagogy or use.
- Examine the differences in the use of the Study Guide by Hispanic students or other potential subpopulations to determine what is particularly helpful in improving passing rates for reading and writing.

Finally, as in all good research, this limited study points to the need for additional research to determine if the efficacy levels noted in this pilot study will be replicated or changed with better training, more fidelity to program implementation and more student engagement in the use of all of the features of the guide.

Appendices

Appendix 1:
Student Survey

AIMS Your Study Guide – Student Survey (Exit Level) 2007–08

Thank you for taking the time to complete this survey about *Your Study Guide*, the personalized Study Guide you received to help you prepare for the AIMS HS test. It shouldn't take you more than 5 minutes to complete the survey. Your answers will help us understand how you used the Study Guide and give us an opportunity to improve it for future students. *Please complete this survey **ONLY** if you are a junior or senior and you received a personalized Study Guide.*

---

1. Your Name (last, first) _____

2. Your School _____

3. What is your grade level? _____

4. What is your ethnicity?

1 O White (Not Hispanic)
2 O Black or African American
3 O Hispanic or Latino
4 O American Indian or Alaskan Native
5 O Asian or Pacific Islander
6 O Other

5. I have taken the AIMS HS test _____ time(s).

Please choose the most appropriate answers for the questions below.

6. My Study Guide contained the following information and sections (Please mark all that apply):

Reading	Writing	Mathematics
1/0 O	1/0 O	1/0 O

7. I used my Study Guide to prepare for the following AIMS HS test administration(s) (Please mark all that apply):

February 2007 (Reading and Writing)	April 2007 (Mathematics)	October 2007	I did not use my Study Guide* *Please explain in the space below and turn in your survey form now.*
1/0 O	1/0 O	1/0 O	1/0 O

* _____

_____

Please choose the most appropriate answers for the questions below.

8. I used my Study Guide:

	1 Never	2 Less than once per week	3 1–2 times per week	4 3–5 times per week	5 5 + times per week
With my teacher(s)	O	O	O	O	O
With a tutor	O	O	O	O	O
By myself	O	O	O	O	O
With a parent or guardian	O	O	O	O	O
With a classmate or a friend	O	O	O	O	O

9. Please choose the most appropriate answers for the questions below.

	1 Yes	**0** No
I reviewed my past AIMS HS test scores (located in the front of the guide).	O	O
I discussed my past AIMS HS test scores with a teacher, tutor, or parent.	O	O
I filled out the Study Planner (located in the front of the guide).	O	O
I completed all the exercises in my Personalized Study Guide.	O	O
I completed all the practice problems located at the end of each subject section.	O	O
I used other resources, in addition to my Study Guide, to prepare for the AIMS HS.	O	O

10. If you used other resources to prepare for the AIMS HS, please list those resources in the space provided below.

For questions 11–17, please choose the responses that best reflect your opinions.

	1 I don't agree at all	**2** I somewhat agree	**3** I mostly agree	**4** I completely agree
11. Before using the Study Guide, I felt nervous about taking the AIMS HS test.	O	O	O	O
12. Items on the AIMS HS test felt familiar to me because I had seen similar items in my Study Guide.	O	O	O	O
13. My Study Guide helped me feel more confident about my ability to pass the AIMS HS test.	O	O	O	O
14. My Study Guide increased my understanding of Arizona's academic standards.	O	O	O	O
15. My Study Guide helped me improve my performance on the AIMS HS test.	O	O	O	O
16. My Study Guide was more helpful than anything else I've used to prepare for the AIMS HS test.	O	O	O	O
17. I would recommend my Study Guide to a friend or a classmate who has to take the AIMS HS test.	O	O	O	O

18. Please choose the responses that best reflect your opinions.

	1 N/A	2 I don't agree at all	3 I somewhat agree	4 I mostly agree	5 I completely agree
My Study Guide helped me understand my ***strengths*** in **Reading**.	O	O	O	O	O
My Study Guide helped me understand my ***strengths*** in **Writing**.	O	O	O	O	O
My Study Guide helped me understand my ***strengths*** in **Mathematics**.	O	O	O	O	O
My Study Guide helped me understand my ***weaknesses*** in **Reading**.	O	O	O	O	O
My Study Guide helped me understand my ***weaknesses*** in **Writing**.	O	O	O	O	O
My Study Guide helped me understand my ***weaknesses*** in **Mathematics**.	O	O	O	O	O

For questions 19 – 20, please write your responses in the space provided below.

19. What aspects of the Study Guide did you find most helpful? Why?

20. If you were in charge of creating a new Study Guide, how would you make it better?

Thank you for completing this survey!