

Middle School
Teacher's Initiative
Leads to School-Wide
Implementation
of Study Technology

Introduction

A teacher of eighth grade science in a large public middle school received Study Technology training on his own initiative. He then persuaded the school administration to allow him to deliver a course in Study Technology to his students. The action was subsidized by the teacher and his wife and a few friends, who purchased the textbooks and supplies needed for the course. And so began a series of events that will soon result in the implementation of Study Technology throughout the curriculum of the entire school.

The Students

This large middle school (1500 students) is part of a sprawling school district that includes both urban and suburban schools—several in very affluent areas typically associated with higher test scores. This Title I school is outside the city limits but is hardly in a typical suburban environment. Students are 80% Hispanic, 15% African-American and 5% Caucasian. Annual scores on the reading and math sections of the Texas statewide achievement test (TAAS) are unacceptably low.

The Intervention

For two years in a row, during the first six weeks of the school year, the teacher taught *Learning How to Learn*, a basic course in Study Technology, to his five sections of eighth-grade science. Students learned vocabulary and comprehension tools as well as strategies for monitoring and correcting their learning process. Throughout the training the students were encouraged to apply and practice all the learning tools and strategies.

In the second school year (2004-2005), due to the death of his mother, the teacher was absent for two of the six weeks available to teach the course. Consequently, most of the students did not complete the course that year.

The Benchmark Test

In November 2004, all eighth-grade science students took the first of the three “benchmark” tests sponsored by the school district and administered throughout the school year. The benchmark test is designed as a “formative” test, to assist teachers in adjusting instruction to the needs of students during the school year. Each teacher is provided with an item analysis of the results for his students and a comparison with district-wide results. Otherwise, scores are aggregated and reported at the school

level. A criterion score established by the school district provides a standard for mastery of the subject matter.

For 2004, the benchmark scores were reported in such a way that two of the teacher’s five science sections were disaggregated from the school’s 20 sections of eighth-grade science. The disaggregated sections were the two pre-advanced placement (Pre-AP) classes. Results for the other three science sections were aggregated with the school-wide results for eighth-grade science.

Results

The Two Science Pre-AP Classes: Because all Science Pre-AP classes were disaggregated in the reporting of district-wide results, it is possible to compare the Science Pre-AP results for any one school with those of the other nine schools that conduct Science Pre-AP classes or with all 687 Science Pre-AP students in the district.

Fifty-seven of the sixty students in the two Science Pre-AP classes took the test. The results were as follows:

The average percentage score for this school’s group was 88.5%, compared to 74.8% for all Science Pre-AP students in the district.

Every student in this school’s group—100%—achieved mastery, according to district criteria, compared to only 85% on the average for all Science Pre-AP students in the district.

No other school reported a mastery level as high as 100%. The next closest schools were reported as 98.1% and 95.0%. The lowest school had only 63.6% achieving mastery.

The Three Regular Science Classes: The scores for students in these classes were aggregated with all non-Pre-AP eighth-grade science students in this school (313) and with all such students district wide (4,175 students in 17 schools). The three classes represented only about 15% of this school’s eighth-grade science students, yet their influence on the results is unmistakable, as this school scored the highest of all 17 district schools for the first time ever.

The average percentage score for these students was 74.0%, compared to 62.9% for all 4,175 district students. Only one other school came close to that score—with 73%. Most other schools achieved averages in the 50% to 60% range, with one school going as low as 28.0%.

86.3% of these students achieved science mastery

compared to 62.2% for all 4,175 district students. Only one other school came close to 86.3% with a mastery level of 81.8%. All others were far below.

Discussion of Results

The outstanding results on the benchmark test were achieved in spite of the following circumstances:

- The students who received the Study Technology training had six weeks less instruction in science and little time to make up the deficit before the first benchmark test in November.
- Several of the comparison schools reside in very affluent communities typically associated with higher test scores. This school, on the other hand, a Title I school, has received unacceptably low reading and math scores on the Texas annual statewide achievement test.
- Only 15% of this school's non-Pre-AP eighth-grade science students received Study Technology training, yet they outperformed the other 16 schools. The influence of the 15% of scores was therefore substantial.

Anecdotal Data. According to the teacher himself, students who finished *Learning How to Learn* reported a dramatic change in their understanding of what they were taught in school and felt they now had the confidence to learn anything they desired.

The teacher also told of one student who did not want to apply what was being taught in the *Learning How To Learn* course and felt it was silly and that it would not work. This student barely passed eighth grade and went on to high school. Midway through the next school year she came back to the middle school, walked into the

teacher's classroom and gave him a big hug. She had come back to thank him for teaching her *Learning How To Learn*. She reported that it had changed her life. She was now achieving all A's and B's because she was applying what she learned in his class. She then turned to other students in the classroom and told them they should finish the course because it really works.

Conclusions

- Study Technology greatly increases the efficiency and speed of learning.
- The impact of Study Technology on the learning process is great enough to propel students to higher levels of achievement.
- The tools of Study Technology give confidence to students and the willingness to reach for more learning.

Results Lead To Expansion

The outstanding performance of the science students on the benchmark test convinced the school administration to consider additional ways of bringing Study Technology to all of the students. It was decided, as a first step, to offer Study Technology courses as electives. A second teacher will be trained by Applied Scholastics to help with the delivery of these courses. A two-day workshop on Study Technology will be delivered to the teaching staff by the science teacher, who received specialized training at the Applied Scholastics campus. Additional pilot programs are being considered, such as:

- Providing Study Technology training to incoming sixth graders.
- Reducing the achievement gap in reading and math with Study Technology-trained peer tutors.



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