report:

Study Technology for College Success

Introduction

Community colleges everywhere are faced with students ill-prepared for post-high school work, not only in terms of academic achievement but also, and especially, in terms of reading ability. The texts they are expected to work with assume a reading level far beyond the reach of many community college students. Most institutions have attempted to handle the problem by offering remedial classes or study skills classes for incoming students, but few are satisfied with the results they obtain. Student drop out is a persistent problem for community colleges.

In 2003 Applied Scholastics introduced a new Study Technology course especially designed for college age students. Because of the emphasis of Study Technology on vocabulary development, it is uniquely suited to helping students who need to improve their reading skill as well as gain in their ability to study and learn and apply what they learn. However, any student who has not yet learned Study Technology can benefit from learning as ot produces a lifelong learner who can master and apply *any* subject.

Context of the Pilot Project

The new course was piloted for Applied Scholastics in 2003 and 2004 by a community college teacher in the Chicago area. In the first semester the course was delivered via the "checksheet" format that is standard with Applied Scholastics' self-paced instruction. In this format students receive a sheet or booklet that lists each and every learning activity to be completed for mastery of the subject. Under the supervision of the classroom teacher, each student works at his own speed, signing off each completed activity as he progresses.

In the second semester the teacher used a teacher's manual prepared by Applied Scholastics to accompany the course textbook so that instruction can be delivered in the group format more familiar to schools and colleges today. When all was said and done, the method of delivery seems to be more a matter of preference than of effectiveness as the results obtained with students both semesters were quite similar. The data reported here were collected in the Spring of 2004.

Profiles of the Participating Students

The class began with seventeen nineteen-year-old students, mostly Caucasian, but including two African-American students and one Hispanic student. The reading levels of these students as determined by the college placement test varied widely, and only four could read above tenth-grade level. Three students placed at sixth-grade level or lower, four placed at eighth- to ninth-grade level, and four at tenth-grade level. Three students did not take a placement test.

Five of the students were identified as "special needs students", a category created by Title IX. These students have been in special programs as part of their K-12 schooling and many carry the labels "LD", "ADDHD", "BI-POLAR", etc.

Motivation to succeed in the course was lacking, in general, at the outset. Most students were there because they had been advised by counselors to do so and took it for only that reason. Two admitted they signed up for an easy "A". At best students were mildly interested at the start of the course.

According to the teacher, the students in general seemed to lack purpose for being in college at all and thus were lacking in the soft skills needed for success—discipline, perseverance and will to excel, to mention just a few. As a result some students came to class late and/or unprepared, did sloppy, careless work, acted bored or lazy, made up excuses, etc.

The Intervention

The class met two times per week for 16 weeks for a total clock time of forty hours and students who completed received three credit hours. The facility available was a standard classroom used by other teachers all day and night, every day and night. Thus there was no way for the teacher to set up a permanent classroom that created the optimum environment for Study Technology training—i.e., with dictionaries and reference materials at hand, a clay table set up, etc. To compensate, the teacher came to class with a suitcase of dictionaries, an encyclopedia, and other reference materials that he could anticipate the students might need.

The course was taught in the standard college class manner. Each day the teacher assigned pages in the textbook to be studied and done for the next class. In each class the previous assignment was reviewed and discussed and concepts clarified and the students were quizzed and then paired up to do practical exercises to demonstrate they could (or could not) apply the tools they had learned. Students who demonstrated weakness in this respect required but did not always receive individual help, due to the nature of the format—one teacher and 17 students. (In a self-paced classroom

only a few students at a time might need help from the teacher.)

Results

Though it was not possible to implement a controlled study of the pilot project, there are three sets of data that show the promise of Study Technology for handling the problems of community college students. The first of these is pre-and post test results—the performance of pilot students on the placement test administered by the college at the beginning of the semester and again, in different form, during the last week of the semester. The second consists of the teacher's observations regarding the students' proficiency in use of the learning tools of Study Technology at the end of the course, and student behavioral changes that occurred during the course.

Thirdly, students wrote essays at the end of the course that reveal attitude change.

Pre-and Post Tests

The instrument used was the Degrees of Reading Power (DRP), a Cloze-type reading assessment in which the student it given a list of words and must choose from them to fill in a blank space in the text.¹ The DRP produces a "raw score" which is then, following a formula established by the DRP designers, translated into a "DRP score". The DRP score can then be correlated with a reading level, or, as it is at this community college, with a specific reading course.

The data table below presents the pre- and post test raw scores, DRP scores and final reading placement for each of twelve students for whom both pre and post test data were available. One student dropped the course after the first four weeks. One student had not yet taken the post test at the time these results were reported. Three students somehow managed to by-pass the college placement system completely and were not tested at all. The designation 092 indicates reading ability is below sixth-grade level, 094 indicates reading level is between eighth- and ninth-grade level and 110 is tenth-grade level. "None" means the student has a high DRP score and is not being advised to take a reading course.

Summary of DRP Results

Eight students improved their raw scores on the test and, thus, their DRP scores. Five students improved their reading placement.

Data Table: Comparison of raw scores, DRP scores, and reading placements at the beginning and at the end of the semester

Student	Pre-test Raw Score	Post-test Raw Score	Pre-test DRP	Post-test DRP	Initial Reading Placement	Final Reading Placement
#1	46	63	58	75	094	none
#2	66	69	82	97	none	none
#3	56	53	66	63	110	none
#4	22	49	40	49	092	092
#5	46	47	57	58	094	094
#6	39	52	53	62	094	110
#7	41	33	53	48	094	092
#8	62	64	74	77	none	none
#9	exempt	69	exempt	97	none	none
#10	37	47	51	58	092	094
#11	58	66	69	82	110	none
#12	57	47	67	58	110	094
#13	59		70		110	
#14	24		42		092	
#15	No test data		•			
#16	No test data					
#17	No test data					

Teacher Observations

- All but four students completed the course, an unusually high percentage for a daytime class in this college where often as many as 50% drop out.
- Five of the students who began the course with a reading level below eigth grade completed the course with a passing grade.
- Four of the five special-needs students earned passing grades.²
- All students now own a dictionary (at the beginning of the semester only four did).
- Every student knows how to use a dictionary and admits to using it while studying materials in other classes.
- Almost all students indicate their confidence in their ability to do the work of a student is "much greater" than it was at the beginning of the semester.
- Almost every student acknowledges that the course was a significant value.

Student Reports

At the end of the course students were asked to write an essay on what did they learn. Five excerpts from their essays are presented here.

Truthfully I learned a lot more than I thought I would. When I first came to this class, I though this class was stupid and boring, an old man trying to be hip, but little did I know I was going to be challenged in many ways. This class taught me several tools that I can take with me to be the best student that I can be. Mr. Boehm, Misunderstood words won't be a problem, and I finally understand (the use of) demos and how important they are. What more can I say? The class was fun, I learned a lot, I was challenged and overall I learned the meaning of "a good student."

— J.B.

This course has been a great tool for me as well as for my academic skills. I have learned a lot from this class and you, Mr. Boehm. Your techniques of learning were pretty interesting, esp. demo kits, sketches, and of course dictionaries. I just want to thank you for teaching me the right tool to succeed as well as having fun in your class.

— J.P.

This class taught me how to control my laziness and understand how important it is to really

LEARN a subject. You're a cool teacher and know how to help students.

— S.M.

I really liked this course a lot. I know what to do in my other classes. (In the past) I would always skip the word or move on and then not understand the story. Now I am going to do better in all my classes. That was the problem, and now I know to use the dictionary. Thank you! I had a lot of fun being in this class.

— A.B.

My experience in this class opened my eyes. What I have learned in this class will really help me in the future as a student. I what to thank you, Mr. Boehem, for teaching me how to use a dictionary. I hope you'll be teaching this class for a while so that when my kids come to Oakton thay can take your class. Your really did a wonderful job in this class. I want to thank you again for teaching me on using the dictionary.

— M.A.

I think that this class has made me a better student, better learner, and a better person all together. It has taught me to take a step by step process in overcoming anything I am working on. You taught me many things that I will take with me.

— T.F.

Conclusions

Bearing in mind that the students were enrolled in other classes during the semester, and many of them in reading courses, and that there was no control group, based on the DRP results alone it is not possible to attribute the improvement in reading levels to the Study Technology course. However, because of the importance of vocabulary in reading comprehension and the use of the dictionary for developing vocabulary, it is a major achievement of the course, and certainly also a contribution to the observed reading improvements, that the students now all own, know how to and do use dictionaries.

Perhaps the most compelling evidences of impact are those relating to the "soft skills":

the teacher's observation that a high percentage of the students actually completed the course, in an environment where it is common for 50% to drop out.

The students' comments about their own attitude changes, including greater confidence in their abili-

ty to succeed and their willingness to wear the hat of a student and take responsibility for learning.

In community college environments where both students and teachers are seriously handicapped by students' lack of responsibility, purpose and persistence in learning, *Study Tools for College Success* shows enough promise to be considered as a valuable resource and remedy when additionally considering other Applied Scholastics documented program successes.

1 A Cloze test is "a test of reading comprehension in which the test taker is asked to supply words that have been systematically deleted from a text".





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^{2 &}quot;passing" necessitated doing well on a written exam and a preactical exam in which a student had to demonstrate a flawless ability to fully "clear" a word using the dictionary (i.e., achieve full conceptual understanding of a word previously not understood).