The Impact of a College Survival Skills Course and a Success Coach on Retention and Academic Performance

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ABSTRACT

Student retention is an ongoing concern of many postsecondary institutions (Kuh, 2008). Student engagement might be a key to addressing retention issues in terms of building relationships between students and their college. One technical college has found that attrition in learning support math courses contributes greatly to the overall college retention issue and that academic success in these courses has some influence. Drawing from current literature, the college addressed this issue by developing both a College Survival Skills course for learning support math students and by hiring a person to serve students in the role of Success Coach. After a year of implementing both interventions, data has begun to show improvements in semester retention, persistence to graduation, and academic success.

Keywords: retention, student engagement, success coach, college survival skills course, technical college

A two-year technical college in Georgia recognized a troubling trend in a number of critical areas, including student retention, and sought to address this issue. After a review of student data, it was decided that a great number of students taking learning support math courses were not retained in the six-term period following their initial enrollment, and in some cases did not begin their program courses, much less persist to graduation. Academic attainment in learning support math courses was determined to have an influence on retention of students.

Three of the learning support math courses are MATH 0097, MATH 0098, and MATH 0099. While there might appear to be a flow from 0097 through 0099, the more accurate structure of these courses is that each is aligned with separate groups of programs. MATH 0097 is the learning support course for program-level math courses in a variety of diploma programs. MATH 0098 leads into program-level math courses requiring more algebraic concepts, such as Machine Tool Technology, Electronics, Aircraft Maintenance, and Drafting. MATH 0099 is the degree-level learning support course that leads into College Algebra.

The retention rate of students for a six-term period was analyzed. Students in the learning support math course MATH 0098 were retained at a 50% rate. The attrition rate, those students leaving school without any credential, was alarming for the MATH 0098 course. For cohorts of students each Fall term from 2004 to 2008, the attrition rate was 71%, 59%, 69%, 57%, and 63%, respectively. When observing academic attainment data, which are those students achieving a grade of A, B, or C from the MATH 0098 course, the rate each term from Fall 2007 to Spring 2009 was 48%, 42%, 41%, 52%, 50%, 35%, and 52%, respectively. Based on these alarming results, two programs for improvement were developed and initiated; one

sought improvement through contextualized learning and the other through enhanced student engagement. This paper discusses the latter effort.

Research has shown much about the great value of student engagement on the retention and academic success of students. Student Engagement theory has emerged in recent adult learning environments (Shneiderman, 1994,1998; Shneiderman et al, 1995; Kearsley, 1997). The fundamental idea underlying engagement theory is that students must be meaningfully engaged in learning activities through interaction with others and worthwhile tasks. Research ties student engagement in educationally purposeful activities to such desired outcomes as grades and persistence (Astin, 1993; Braxton et al., 2004; Kuh, 2001, 2003; Kuh et al., 2007; Pascarella & Terenzini, 2005). The student engagement construct used in Kuh, Cruce, Shoup, Kinzie, & Gonyea's (2008) study is consistent with theoretical models featuring the interplay between student behaviors and perceptions of the institution and engagement. A number of studies (e.g., Hughes & Pace, 2003) show that students who leave college prematurely were less engaged than their counterparts who persisted.

Kuh, et, al. (2008) discovered that among first-year students, student engagement in educationally purposeful activities is positively related to academic outcomes as represented by student grades and persistence. Once college experiences are taken into account—enrollment status, working off campus and so forth—the effects of pre-college characteristics such as ACT or SAT scores diminish considerably. Laskey and Hetzel's 2011 study suggested tutoring is much more valuable as a predictor of college success than ACT and SAT scores, especially with at-risk students. Relationships play a crucial role in retention because they foster a stronger sense of integration into the college (Gilardi & Gulgielmetti, 2011). Student engagement—behaviors that colleges can influence with teaching practices and programmatic implementations such as learning communities (Zhao & Kuh, 2004) and tutoring/coaching (Lloyd & Eckhardt, 2010)—positively affects grades in both the first and last year of college as well as persistence to the second year at the same institution.

In addition, it was found that engagement has a compensatory effect on first-year grades and persistence to the second year of college at the same institution Kuh, et. al. (2008). That is, while exposure to effective educational practices generally benefits all students, the effects are even greater for lower ability students. The compensatory effect of engagement has also been noted by others (Cruce, Wolniak, Seifert, & Pascarella, 2006), suggesting that "institutions should seek ways to channel student energy toward educationally effective activities" especially for those who are academically underprepared.

In his July 27, 2011, online blog (Gardner, 2011), Dr. John Gardner remarked that improving retention is very difficult to do. Although Gardner posits there are no silver bullets or quick fixes to improving retention rates on college campuses, he asserts that there are externally validated strategies that seem to have a positive impact on improving retention, including first year seminars.

In a recent presentation summarizing the work of the National Developmental Education Initiative, Dr. Maggie Shelton (May 26, 2011) suggested that work has to be done to improve the retention, completion, and graduation rates of students who begin the postsecondary experience

in remedial education courses. In her comments regarding promising strategies to improve student retention, Dr. Shelton noted that student success courses have been shown to have a positive impact on outcomes for students taking remedial courses.

With the work of Gardner and Shelton in mind, a two-year technical college in Georgia endeavored to measure the extent to which its College Success Course has impacted students matriculating in remedial math courses. Of note is fact that only 10% of the over 2300 graduates in Fiscal Year 2011 took at least one remedial course during their time at the college. For Fall Semester 2011, 359 students (12%) of the currently enrolled students are enrolled in a learning support class; 63 of whom are in two and 21 are in three learning support courses. Of the 359 students, 249 are enrolled in a learning support math course.

The Success Coach position was filled in Summer 2010. The role of the Success Coach is to encourage students to be self-motivated, responsible, and self-managed. The coach has a number of responsibilities; one of these is to create a connection between the student and the college. Other efforts include monitoring academic progress regularly, establishing connections between the learning support students and their program faculty, creating a sense of accountability within the student, establishing milestone benchmarks for each student as a means to visualize success, teaching student success skills, and discussing topics pertinent to the student experience, to name a few. Students may be referred to the Success Coach by learning support tutors, their instructors, or may choose to visit on their own accord.

COLL 1001 is a course entitled College Survival Skills and is taught by the Success Coach. Students in learning support math courses are very strongly encouraged to take COLL 1001 during the same semester. This course curriculum fits the general model found in many colleges: study skills, note-taking, prioritizing, time management, and other similar topics. This course also includes a walk-through tour of program areas and content focused on math-specific trouble areas.

A survey was developed for use in the COLL 1001 course to determine what affect the course might have on the connection a student feels with his or her program and the awareness of the use of math in the program. The data reveals a significant impact on a student's perception of feeling connected to their program. With this increased connection, one hopes to also see an increase in student's engagement with their program and with their college experience overall.

To determine an increase in student engagement, the aforementioned survey was a pre-test/post-test instrument and contains a series of eight statements. The statements may be placed in two groups. These statements relate to either the student's perceived knowledge of the people and places of their program or their perceived use of math in their program. Each statement is answered in a forced-ranking Likert scale from 1 to 4. The available responses are based on how well the student perceives their knowledge or awareness of the particular statement. The available responses were:

1 is "I do not know",
2 is "I think I know but I do not remember",
3 is "I think I know",

4 is “I know”.

Improvement was seen in each of the eight statements, indicating an overall positively developed connection with the program and the use of math in the program. The overall sample for the pre-test was 88 and the post-test, 82. For the pre-test, the overall mean score of all responses was 2.96. For the post-test, the overall mean score was 3.49, indicating an increase in more than half a point, 0.53. A further look at the data shows that while the specific math statement responses increase 0.39, those questions pertaining to the people and places of the program increased a substantial 0.62, indicating a stronger connection with the program. Table 1 below shows the summary data for Program Connection Summary.

Table 1

Program Connection Survey Summary

	Mean Scores		
	Pretest	Posttest	+/-
I know the name of the program chair of my program	2.07	3.15	1.08
I know the name of at least one faculty member that teaches in my program	2.93	3.38	0.45
I know the location of my program on campus	3.13	3.67	0.54
I know what the classrooms or labs of my program look like	2.70	3.32	0.62
I know how important Math is in my program	3.44	3.79	0.35
I know the value of my math courses in my program	3.35	3.72	0.37
I know at least one example of using math in my program	2.93	3.38	0.45
I know I feel connected to my program	3.11	3.56	0.45
Cumulative mean score	2.96	3.49	0.53

From the table one can also see the impact on knowing the name of the program chair of their program, which saw the greatest increase of 1.08; this statement saw a change in the pre-test mode of 1 to the post-test mode of 4. Knowing what the classrooms and labs look like and the location of the program on campus also realized greater than half-point increases; 0.62 and 0.54, respectively.

This improved program connection through COLL 1001 and the Success Coach has also shown improvements in semester retention. Semester retention refers to those students who started the semester and persisted to the end of the semester. To determine the impact COLL 1001 has on semester retention, students in MATH 0097, 0098, and 0099 were divided into two groups: those enrolled in COLL 1001 and those not enrolled in COLL 1001. Those students who stayed throughout the semester and received a grade of A, B, C, D, or F were compared to those students who did not stay and received a WF or WP. Table 2 below shows the results for FY2011:

Table 2:

FY2011 Percentage of MAT students achieving A, B, C, D, or F

	Took COLL 1001		Did NOT Take COLL 1001	
	Retention	*N*	Retention	*N*
MATH0097	71.68%	113	55.26%	76
MATH0098	83.86%	245	62.45%	223
MATH0099	75.00%	48	72.97%	74

The data above shows a clear benefit for learning support math students taking the COLL 1001 course with regard to how well they remain for the entire semester. Many learning support students are not enrolled in program courses. Program tours, as well as the rest of COLL 1001 activities, show students the physical location of program labs and enable students to meet program faculty. Students report that these efforts have strengthened their connection to their respective programs. This improved sense of connectedness may be evident in the retention of the learning support math students.

There have been improvements shown in the academic performance of learning support students taking COLL 1001. The overall grade point average (GPA) of students in MATH 0098 was compiled for FY2011. One group consisted of students who had completed COLL 1001 prior to taking MATH 0098, and the other group was students who had not taken COLL 1001 prior to MATH 0098. Table 3 below shows the results:

Table 3:

FY 2011 MATH 0098 GPA Comparison

	Mean GPA	N
Students who took COLL 1001	2.54	97
Students who did not take COLL1001	2.49	81

For the year, students having had COLL 1001 performed better than those who did not take COLL 1001 prior to MATH 0098. The student data gathered for this is also a part of the aforementioned retention data; the retention data was from all of FY2011. The mean GPA includes the same students completing the MATH 0098 course as indicated in the retention data. This suggests a correlation between enrollment in the COL 0099 course, a stronger student perception of program connection and therefore engagement, greater semester retention, and greater academic performance.

Student engagement leads to improved academic performance and retention, especially with learning support students (Kuh, et. al., 2008; Cruce, et. al., 2006). Critical to any success in retention are the relationships made with others at the college (Gilardi & Gulgielmetti, 2011), and this is accomplished with the Success Coach and the COLL 1001 course. In the case of COLL 1001, student engagement is developed not only through the student's relationship with the Success Coach but also through program tours. This development in engagement is observed through the results of the Program Connection Survey. The successful impact of a Success

Coach on GPA and therefore retention reflects the findings of Laskey and Hetzel (2011). The COLL 1001 course is consistent with the recommendations of Laskey and Hetzel (2011) for providing activities for students to develop time management skills and organizational strategies. The combination of Success Coach and the COLL 1001 course appears to have a meaningful impact on student persistence through the end of the term as well as academic performance in the learning support math courses.

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