

Research Briefs

KEY FINDINGS

- In general, student success and retention rates are higher in hybrid courses than in traditional and distance education courses.
- None of the data analyses produced results indicating a lack of quality in hybrid course delivery.
- In Allied Health, Business & Technology, and Liberal Arts & Social Sciences divisions, success rates were higher in hybrid courses than in the other presentation modes.
- Hybrid courses in the Bachelor Programs and Math & Science divisions had higher success rates than distance education courses.
- Early registrants have higher success rates in hybrid, traditional, or distance learning courses.

IMPLICATIONS

For Practice:

- Based on this preliminary analysis, hybrid courses show high success rates.
- Considering 40% increase in traditional enrollment in five years, hybrid courses should be considered a viable alternative.

For Policy:

- Increase awareness of hybrid courses and provide training to faculty and students who are interested in hybrid courses.
- Due to the newness of hybrid courses, caution and emphasis should be placed on consistency in delivery.

For Research:

- Follow-up with mixed methods approach to analyze student and faculty experiences in hybrid courses.



Student Success Rates in Traditional, Dual Enrollment, Distance Learning, and Hybrid Courses

Based on Spring 2009 Grades

South Texas College (STC) has been offering distance education courses since the fall semester of 1998. Hybrid courses are a more recent instructional method alternative, being offered since the fall semester of 2006. The College may be tempted to offer more courses using this method of delivery and students may be just as tempted to enroll in these courses. It is imperative, however, to explore the effectiveness of hybrid courses in comparison to other methods of delivery.

Background

In an effort to keep-up with the increasing demands of its growing student body, STC is continuously exploring innovative instructional delivery modes to meet these challenges without sacrificing the high quality education that has become the STC standard. The rapid expansion of distance education has created a wave of exciting new possibilities at overcoming this hurdle. According to the STC's Office of Research & Analytical Services (Fall 2009), there has been a 150% increase in distance learning (40% in traditional) enrollment in the past five years. Hybrid courses split the time of instruction between on-campus attendance and on-line interaction. According to Mike Ayala (Instructional Designer for Distance Education), STC began offering hybrid courses in the fall of 2006. STC requires a minimum of 30% and a maximum of 49% of these courses take place on campus (STC, 2009). Many researchers in this field, such as the University of Houston: C.T. Bauer College of Business (UH: CTBCB) have theorized that hybrid courses are beneficial in that they offer the "best of both worlds." Among the benefits they cite of hybrid courses are the flexibility provided by online

courses, reduced class-time, keeping face-to-face (F2F) interactions and allowing a broader array of teaching methods to reach and engage students with various learning styles.

Purpose of Study

This study was designed to compare student success rates among different types of course presentations (1) traditional or F2F, (2) distance learning, (3) high school dual enrollment, (4) or hybrid which is a combination of F2F and online. Specifically the central focus was on student performance in hybrid courses as opposed to the other three types of presentation.

Methodology

The dataset for this study was derived from the STC student information system/Banner to observe grades from spring 2009. There were a total of 3,426 course sections of which 2,340 were traditional, 748 dual enrollment, 295 distance learning, and 43 hybrid. The student grade records from these course sections totaled to 58,904. The letter grades were recoded as follows: *Successful* if grades were A, B, C, or P; *Unsuccessful* if grades were D, F, I, or NP; and *Withdraw* if the grade was W. First, success and withdraw rates were compared among four types of course presentations without controlling for any other vari-

ables. After this initial assessment, academic division, length of semester, and level of course, and were introduced as control variables into the comparisons. To analyze the impact of term length two sub-groups were created: Nine weeks or less, and ten weeks or more. Three levels of courses were compared: remedial, 1000, and 2000-plus. Next, students who were enrolled in hybrid courses were selected and their success rates were compared across the types of course presentations. Comparisons of grades in courses taught by the same instructor in all three modes (traditional, distance education, hybrid) followed (course-instructor). Finally, grades of early and late registrants in hybrid courses were compared. Chi-square test of independence was used to statistically analyze the data.

Research Questions

Key questions addressed by this research are:

- Is there a difference in student grade performance by type of presentation?
- If differences exist, how do they change when we control for academic division, term length, course level, student, course-instructor, or time of registration?

Student Success Rates in Traditional, Dual Enrollment, Distance Learning, and Hybrid Courses (cont.)

Findings

General

When all student grades and presentation types were evaluated, dual enrollment had the highest success rate (88%). Nevertheless, student success in hybrid courses was higher than in traditional and distance education courses. When we took out dual enrollment students, the differences remain statistically significant (Table 1).

Division

In Allied Health, Business & Technology, and Liberal Arts & Social Sciences divisions, success rates were higher in hybrid courses than the other presentation modes. Additionally, the Bachelor Programs and Math & Science divisions' hybrid courses had higher success rates than their distance education courses (Table 2).

Length of Term

In terms that span nine weeks or less, there were no dual enrollment or hybrid courses and thus the only findings were that students' success rates are better in traditional courses than in distance learning. When examining the terms lasting 10 weeks or more, again hybrid courses had higher success rates than both traditional and distance education.

Course Level

Both in 1000 level and 2000-plus level, hybrid success rates were higher than traditional and distance education.

Hybrid Students

In the spring semester of 2009, 692 students had enrolled in hybrid courses. When their grades were compared across the delivery methods of all courses they had taken, significant differences were found, hybrid courses having higher success rates than traditional and distance

Table 1—Student Success Rates for Types of Course Presentation

	Successful	Unsuccessful	Withdraw	n
Traditional	72%	19%	9%	40,674
Dual Enrollment	88%	8%	4%	11,171
Distance Learning	60%	27%	13%	6,229
Hybrid	82%	10%	8%	829
Total	74%	17%	9%	58,903
Total excluding Dual	71%	20%	10%	47,732

Proportion differences are significant at .01 level

Table 2—Student Success Rates with Respect to Academic Divisions

		Successful	Unsuccessful	Withdraw	n
Allied Health	Traditional	88%	9%	3%	5,038
	Distance Learning	80%	14%	6%	342
	Hybrid	94%	5%	2%	185
	Total	87%	9%	3%	5,565
Bachelor Programs	Traditional	93%	4%	3%	256
	Distance Learning	77%	16%	7%	203
	Hybrid	91%	5%	4%	184
	Total	87%	8%	5%	643
Business & Technology	Traditional	80%	13%	7%	4,571
	Distance Learning	64%	23%	13%	661
	Hybrid	89%	5%	6%	151
	Total	78%	14%	8%	5,383
Liberal Arts & Social Sciences	Traditional	70%	20%	10%	16,393
	Distance Learning	60%	28%	13%	3,779
	Hybrid	74%	13%	13%	133
	Total	68%	21%	11%	20,305
Math & Science	Traditional	69%	19%	12%	7,635
	Distance Learning	53%	28%	18%	996
	Hybrid	62%	21%	18%	176
	Total	67%	20%	13%	8,807

Proportion differences are significant at .01 level

education (Table 3).

Course-Instructor

No differences were found in success rates of students in courses taught by the same instructors in three different presentation types. However, sample sizes were low when data were broken down to this level,

Table 3—Student Success Rates of Hybrid-taking Students

	Successful	Unsuccessful	Withdraw	n
Traditional	79%	14%	7%	1,226
Distance Learning	70%	18%	12%	354
Hybrid	82%	10%	8%	829
Total	79%	13%	8%	2,409

Proportion differences are significant at .01 level

Table 4—Student Success Rates in Hybrid Courses with Respect to Registration Time

	Successful	Unsuccessful	Withdraw	n
Early Registrants	86%	9%	5%	374
Last-minute Registrants	78%	10%	12%	167
Total	84%	9%	7%	541

Proportion differences are significant at .05 level

which may affect the reliability of the discoveries.

Early versus Last-minute Hybrid Registrants

Students who enrolled in hybrid courses at least one month before the deadline were considered early registrants; while students that enrolled within the last 13 days before the deadline were considered last-minute registrants. Analysis indicates that early registrants had higher success rates in hybrid courses (Table 4), as is the case with traditional and distance education.

Implications for Further Research

Hybrid method of delivery of courses may be creating both temptation and cautiousness among administrators, faculty, and students alike. Because STC has adopted a culture of evidence, which necessitates that all decisions are data-driven and timely, it is only natural that the College decided to investigate the current state of student success in hybrid courses relative to other types of course presentation. STC has to make sure that the student learning outcomes are achieved in addition to offering students simultaneous flexibility and student-faculty contact, and reduced space-time pressure for the academic divisions and the College overall. While further analyses are definitely necessary, preliminary findings indicate that students are performing well in hybrid courses, and in most instances better than in courses taught in traditional and distance education formats. None of the data indicated a lack of quality in hybrid course delivery. Nevertheless, this study should be followed up with mixed methods, including qualitative data to ensure that the depth of learning is similar regardless of the presentation and level of experience with hybrid courses. In addition, due to the newness of hybrid courses, caution and emphasis should be placed on consistency in delivery.