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SUCCESS RATES FOR STUDENTS TAKING COMPRESSED AND REGULAR LENGTH DEVELOPMENTAL COURSES IN THE COMMUNITY COLLEGE

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In recent years, developmental education in the community colleges has received much attention. However, there has been little research examining the relationship between course length and course success in developmental education. Using historical enrollment data from a large, suburban community college in southern California, this study examines the relationship between course length and course success in developmental education when social and academic background characteristics are controlled. The study hypothesized that there would be no significant or practical difference in success rates for students taking compressed (i.e., courses less than eight weeks in length) or regular length developmental English, reading, or math courses when social or academic characteristics are controlled. Results demonstrate that developmental course length was associated with statistically and practically significant differences in course success observed across all categories of age, gender, and ethnicity. Students enrolled in compressed-format courses were more likely to succeed than students enrolled in regular-length courses. Higher successful course completion rates for compressed courses were observed across all departments, with the highest successful course completion

rates in the eight-week format in English. Further, students—irrespective of age, race, or gender—were more likely to successfully complete compressed-format courses than their counterparts in regular-length courses. Findings point to an educational benefit for students who enroll in compressed courses. Future research in this area includes an examination of students' progress through a sequence of developmental education courses and a look into the effect of college experience and environment factors related to success in compressed courses.

In recent years, developmental education in the community colleges has received much attention. Previous scholarship has focused on several themes related to student success in developmental education including the following: organizational and administrative practices, program components, staff or professional development, support services and counseling, and instructional practices (Center for Student Success, 2007). Within the instructional practices literature, scholarship has focused on learning theory, holistic development of developmental learners, culturally responsive instruction, and faculty cohort models (Center for Student Success, 2007). Further, research in this area has examined the effects of course sequencing, and clustering courses, including the articulation of entry and exit skills among all courses within a sequence, alignment of comprehensive academic support mechanisms, and development of innovative learning communities (Center for Student Success, 2007).

To be sure, the prevalence of developmental education in the community colleges, the long-standing identity of community colleges as gateways to opportunity and baccalaureate attainment for students who have been historically excluded from higher education, and recently adopted accountability initiatives, such as those in the California Community Colleges, related to developmental education outcomes, makes student success and achievement in community college developmental education a high stakes issue. In California, only 51.3% of students succeed in basic skills courses (California Community College Chancellor's Office [CCCCO], 2009), and 51.2% of developmental students advance to the next course level (CCCCO, 2009). Nationally, the average number of community college developmental math courses offered was 3.6 (Lewis & Farris, 1996). And yet, in spite of scholarship that demonstrates a negative relationship between the length of time required for remediation and successful completion of a remediation program or course of study (Boylan & Bliss, 1997; Kangas & Ma, 1992a,b,c), there has been relatively little research about the relationship between the length of developmental education courses at community colleges and student success.

This study explored the relationship between course length and course success in community college developmental education courses. In so doing, the study elaborates our understanding of curriculum delivery strategies and their relationship to student success in developmental education courses. Specifically, this study explores the success rates and characteristics of community college students who succeed in developmental education courses of varying lengths.

FACULTY AND STUDENT PERCEPTIONS OF THE COMPRESSED COURSE APPROACH

Compressed courses (i.e., courses offered for the same number of units in less-than-full-term instruction) appear to benefit both faculty and students (Daniel, 2000). With respect to student and faculty perceptions of their experiences in compressed courses, Daniel reported that students in an intensive English program indicated a higher level of motivation in compressed courses when compared to their counterparts in traditional-term courses. Further, Daniel reported that students believed that compressed courses allowed for more time for student-faculty interaction but less time to complete assignments. Carley (2002) concluded that the majority of students in his single institution study preferred meeting two days per week for fewer weeks.

While students who enrolled in compressed courses generally perceived a positive experience, Daniel (2000) reported that faculty felt that compressed courses allowed for more in-depth discussions and experiential activities. Rosen, Howell, and Johnson (1982) found that instructors of compressed courses in accounting perceived greater effectiveness under the conditions. Beachler (2003) also found that over a third of faculty surveyed in a single institution study reported that students were more successful and less likely to withdraw from classes in compressed versus regular-length courses. By contrast, Beachler reported that 40% of faculty in her study reported that the compressed-course format adversely affects students' levels of anxiety and stress. Rosen et al. (1982) confirm this finding in their evaluation of compressed formats in accounting courses. They found that students in compressed courses perceived stress under the conditions. Still, faculty who teach in compressed courses in the summer generally felt that they were able to establish rapport with students more quickly (Kretovics, Crowe, & Hyun, 2005). With respect to student performance in compressed courses offered in the summer, Kretovics et. al. found that faculty whom they surveyed reported that students are more focused on learning outcomes, participate more in class discussions, and attend class more regularly.

STUDENT PERFORMANCE IN COMPRESSED COURSES

While studies demonstrate that both faculty and students perceive aspects of compressed course formats positively, research demonstrates that course length affects student performance (Geltner & Logan, 2001; van Scyoc & Gleason, 1993). In fact, van Scyoc and Gleason observed that students enrolled in compressed courses scored better on tests than students enrolled in traditional semester-length courses, with one notable exception. Van Scyoc and Gleason noted that the effect of course length seemed to disappear when knowledge retention was measured. These findings appear to support research that has observed that students who enroll in short-term, time-intensive courses perform on par with or better than students enrolled in semester-length courses.

While the notion of offering accelerated or compressed courses to developmental education students may seem counterintuitive, there is evidence indicating the viability of the concept. The study most relevant to the discussion of student success in compressed-format courses at community colleges was conducted at Santa Monica Community College (Geltner & Logan, 2001). The authors examined successful course completion, or the percentage of students passing courses with a grade of C or better and withdrawal rates for native students enrolled in compressed format courses and compared them with the success and withdrawal rates of native students enrolled in regular length classes. Native students were identified as continuing students not transferred to the college from another institution. University students enrolled in one summer school course at the college were excluded from the analysis. Grades received were aggregated across variables based upon the length of the course. Assuming that instructors with higher than average grade distributions were not over represented in the compressed scheduling format, the effect of grading variation by instructor should have been removed as a factor influencing success rates.

In Geltner and Logan's study, analyses of success rates by department revealed that with the exception of two subject areas, successful course completion rates were higher for courses offered in compressed formats than in traditional semester-length courses. In general, shorter course length corresponded to higher successful course completion rates. For example, in math, those courses offered in the 6-week compressed format had successful course completion rates of 67% compared to 61% for courses compressed in an 8-week time period and 52% for the regular length 16-week course. Withdrawal rates were 17% for the 6-week course, 21% for the 8-week course, and 26% for the 16-week course.

The authors also observed the same relationship between course length and success rates when controlling for demographic characteristics such as age and ethnicity and for student performance characteristics such as cumulative grade point average and student probationary status. While the authors note that better students tended to enroll in the compressed courses, even those students with lower cumulative grade point average or probationary status achieved higher success rates in aggregate than their counterparts enrolled in traditional-length courses. Forty percent of probationary students enrolled in 6-week courses successfully completed them compared to 33% of those enrolled in 8-week courses, and only 23% of probationary students enrolled in 16-week classes. The same general pattern of higher success rates for compressed courses was observed for all ethnic and age groups.

REMEDICATION, STUDENT ACHIEVEMENT, AND COMPRESSED COURSES

As primary providers of developmental education, community colleges have accommodated increased demand for developmental education services by extending their curriculum to serve a greater variety of student preparedness levels. The most recent study on the subject from the National Center for Education Statistics (Lewis & Farris, 1996), documents that community colleges, on average, offer a greater number of developmental courses than other higher education institutions, a trend particularly apparent in math (Lewis & Farris, 1996). In fall 1995, the average number of developmental mathematics courses offered in the community colleges was 3.6 compared to 2.0 for public four-year universities (Lewis & Farris, 1996).

Extension of the developmental math curriculum in the community colleges, although appropriate in terms of accommodating disparate levels of preparation, may exacerbate the problem associated with the length of time required for successful remediation and the achievement of college level skills.

Even though a negative relationship between the length of time for remediation, student persistence, and college success is well documented (Boylan & Bliss, 1997; Kangas & Ma, 1992a,b,c), current scheduling practices and curriculum structures within community colleges often demand that seriously deficient students who desire to transfer successfully complete three to four developmental courses in each subject area, often over a period of two or more years, before even attempting transferable courses in English and mathematics. In their efforts to accommodate various levels of preparation by extending

the developmental curriculum, community colleges may have unintentionally imposed an institutional barrier to transfer.

Although Geltner and Logan's study addresses the overall success rates of community college students enrolled in compressed courses, it does not specifically address the performance of students enrolled in developmental classes offered in the compressed format. It is also unclear whether the compressed math and English courses in the Santa Monica study contain an overrepresentation of transfer-level courses. Because of the limitations of the Santa Monica study and the lack of published research in the area of developmental courses offered in a compressed format, this study of community college students enrolled in compressed developmental math, English, and reading courses was conducted in order to assess whether a relationship between course length and course success exists.

RESEARCH QUESTIONS AND HYPOTHESES

This study addressed two fundamental questions: Is there an educational benefit to community college students when developmental courses are offered in a compressed format? And, if so, what is the nature of the benefit? That is to say, are there any observable differences in benefits based upon a student's age, gender, or ethnicity? If there is no relationship between developmental course length and success in developmental courses, we would expect the following hypotheses to hold true:

- H1: There is no statistical or practical difference in success rates for students taking compressed or regular length developmental English, reading, or math courses.
- H2: There is no statistical or practical difference in success rates for students taking compressed or regular-length developmental English, reading or math courses when social or academic characteristics such as ethnicity, gender, age, or cumulative grade point average are controlled.

METHOD

Data Source and Analytic Approach

The data for this study are drawn from historical enrollment records of a large, suburban community college with a large percentage of

historically underrepresented students. The population of interest for this study was native or continuing community college students who enrolled in at least one developmental English, reading, or math course offered in either a compressed or regular-length format. To identify the population of interest, student enrollment records for spring 1998 through fall 2001 were extracted from the college's database, compiled, and aggregated by type of course. Courses in the database are identified as basic skills, vocational, or transfer. Courses categorized as basic skills represent developmental education courses.

In an attempt to control for variation in success rates that might be attributed to university students enrolling in developmental education courses at the local community college, students categorized as new to college or transfers from other colleges were excluded from the analysis. Only those records for students enrolled in courses designated as developmental were included in the study, and only those students identified as native or continuing students were included in the study. Additionally, an attempt was made to control for variation in success rates that might be attributable to high school concurrent enrollees. As a result, students below the age of 17 were also excluded from the analysis.

A total of 21,165 enrollment records were examined. Of those included in the study, 3,360 enrollment records were for students enrolled in compressed developmental courses and 17,805 were for students enrolled in regular length courses. For the purpose of this study, compressed courses are defined as those courses offered for the same amount of units in less than 15 weeks; regular length courses are defined as those courses offered in the standard 15-to-18 week format. During the period under study, these compressed courses were offered in six and eight week formats. Table 1 presents the distribution of enrollment records by course type and length.

Table 1. Percent distribution of students in developmental education courses, spring 1998 to fall 2001

Course	5-6 week course	8-9 week course	15-18 week course
English 20	28.67	32.39	20.38
Math 20	35.43	6.58	25.64
Math 40	0.00	60.70	29.60
Reading 42	5.90	0.00	4.48
Reading 43	19.82	0.25	13.91
Reading 54	10.10	0.08	6.04

Note. The total number of students is 21,165 for all classes and 4,636 for English 20; 5,410 for Math 20; 6,000 for Math 40; 926 for Reading 42; 2,907 for Reading 43; and 1,286 in Reading 54.

In this investigation, the goal was to explore the nature of the relationship between success in developmental courses and course length. Due to the exploratory nature of the study and the structure and availability of the data contained in the database, the analytic approach to the data was largely descriptive and employed the following analytic techniques: contingency tables, chi-square analysis, and percent difference. (Percent difference was selected as the means of assessing the potential strength of association between the variables because of the limitations associated with using Cramer's V when large sample sizes are present. As well, Lambda was also deemed inappropriate due to percent differences larger than 5% and consistency in the mode for the dependent and independent variables.) The data were first examined to assess whether any significant differences based on academic and social characteristics were present for compressed versus regular-length course enrollees. Next, the data were analyzed to determine whether evidence of a relationship between course length and course success was present. Finally, the data were examined to assess the relationship between course length and course success when social and academic characteristics were controlled.

Variables and Their Indicators

The data source provides a number of institutional and student-level variables previously demonstrated to be related to student success in courses. For the purpose of this study, course success in developmental education courses is theorized to be related to course length even when type of course and academic and social background characteristics are controlled.

Dependent Variable

The dependent variable for this study is the success rate of students enrolled in developmental courses. It is constructed as the percentage of students who received a grade of A, B, C, or CR divided by the total number of students attempting the course and receiving a final grade disposition in the course, inclusive of course withdrawals.

Independent Variables

Independent variables include type of course and several academic and social background characteristics such as age, gender, ethnicity, and cumulative grade point average. Type of course includes the three areas of offerings for developmental education at the community college where the study was conducted—English, mathematics, and reading. For English, only one course, English 20, Basic Writing,

was examined because it was the only developmental English course offered in both a compressed and regular length-format. English 20 is considered to reflect students with English skills two levels below college level. In math, Math 20, Basic Mathematics, and Math 40, Survey of Mathematics, were examined. These courses are designed for students three and two levels below college level math skills, respectively. In reading, three courses were examined: Reading 42, Reading Access for College Students; Reading 43, Basic Reading Skills; and Reading 54, Developmental Reading. These courses are for students with skill levels, respectively, three levels, two levels, and one level below college level.

Age is reflective of the student's age at the time of taking the developmental course. It is constructed dichotomously as traditional versus nontraditional age students. Traditional age students are defined as those below the age of 25, while nontraditional are defined as those 25 years of age and above. Ethnicities are categorized as follows: Asian and Pacific Islanders (including students identifying as Filipino), African American, Latino, White, and Other (including Native American, and students who did not indicate their ethnicity). Cumulative grade point average is also constructed dichotomously; categories include students with cumulative grade point averages below 2.0 and those with grade point averages at or above 2.0.

RESULTS

Students Enrolling in Compressed and Regular-Length Courses

Table 2 presents the distribution of enrollment records by social and academic background characteristics. As is illustrated in Table 2, Asian and Pacific Islander students are slightly overrepresented in compressed courses compared to their overall representation in the study while Latino students are slightly underrepresented. These differences were statistically and practically significant ($X^2 = 456.652$, $\alpha = .000$, $df = 5$). Students aged 25 and older were also slightly over-represented ($X^2 = 24.888$, $\alpha = .000$, $df = 1$) as were students with cumulative grade point averages 2.0 and above ($X^2 = 29.606$, $\alpha = .000$, $df = 1$).

Success Rates in Compressed Versus Regular Length Courses

When an analysis of success rates in compressed and regular-length developmental courses was performed, a pattern of higher successful

Table 2. Percent distribution of enrollment by course length and background characteristics

Characteristic	Compressed course	Regular length course
<i>Gender</i>	$\chi^2 = 2.232^*$	
Male	33.10	34.43
Female	66.90	65.57
<i>Ethnicity</i>	$\chi^2 = 456.652^{**}$	
Asian/Pacific Islander	14.11	7.46
African American	10.54	8.82
Latino	50.83	57.12
White	4.20	7.09
Other	20.33	19.50
<i>Age</i>	$\chi^2 = 24.888^{**}$	
Below 25	68.87	73.06
25 and older	31.13	26.94
<i>GPA</i>	$\chi^2 = 29.606^{**}$	
Below 2.0	26.28	30.98
2.0 and above	73.72	69.02

Note. The total number of students is 21,165 for gender, ethnicity, age, and GPA.

* $\alpha = .328$.

** $\alpha \leq .000$.

course completion rates for compressed developmental courses was observed across each of the departments under study. Table 3 presents the results of success rates by department. Of the three departments studied, the highest successful course completion rates occurred in courses offered in the eight-week format. (Only four students took a reading course offered in the eight-week format; success rates for reading are for six-week format classes.) Among eight-week format courses, English had the highest successful completion rate

Table 3. Success rates by department and course length

Department and success	5-6 week course	8-9 week course	15-18 week course
<i>English</i>	$\chi^2 = 195.175^*$		
Percent successful	75.80	86.90	56.70
<i>Math</i>	$\chi^2 = 69.553^*$		
Percent successful	57.91	65.35	51.15
<i>Reading</i>	$\chi^2 = 52.9591^*$		
Percent successful	77.68		66.30

Note. The total number of students in English is 4,636; in math 11,410; and in reading 5,115.

* $\alpha = .000$.

at approximately 87%. In examining success rates for courses offered in the six-week format, reading had the highest success rate. Nearly 77% of students attempting a compressed reading course successfully completed that course compared to approximately 76% for English and 58% for math. As is indicated in Table 3, these differences were both statistically and practically significant.

An examination of success rates by course for English, reading, and math reveals that students enrolling in compressed-format courses were more likely to succeed. Indeed, a clear pattern of students who were more likely to successfully complete compressed-course formats than students enrolled in regular-length courses was observed. Table 4 presents the success rates by course of students enrolled in compressed-format courses compared to those enrolled in regular-length courses. Among compressed math courses, Math 40, Survey of Mathematics, had a higher successful course completion rate than Math 20, Basic Math. The success rate for Math 40 in the eight-week compressed format was 67% compared to 49% for Math 20 offered in the eight-week format. Reading 54, Developmental Reading, and Reading 42, had the highest successful course completion rates among the three developmental reading courses offered in compressed form. The successful course completion rates

Table 4. Success rates by course and course length

Course and success	5-6 week course	8-9 week course	15-18 week course
<i>English</i>			
English 20	$\chi^2 = 195.175^*$		
Percent successful	75.80	86.90	56.70
<i>Math</i>			
Math 20	$\chi^2 = 23.804^*$		
Percent successful	57.91	49.37	48.38
Math 40	$\chi^2 = 47.344^*$		
Percent successful		67.08	53.56
<i>Reading</i>			
Reading 42	$\chi^2 = 15.072^{**}$		
Percent successful	80.62		63.11
Reading 43	$\chi^2 = 21.165^*$		
Percent successful	75.00		63.53
Reading 54	$\chi^2 = 17.557^*$		
Percent successful	81.19		66.82

Note. The total number of students in English 20 is 4,636; in Math 20; 5,410; in Math 40; 6,000; in Reading 42; 926; in Reading 43; 2,904; and in Reading 54; 1,285.

* $\alpha \leq .000$.

** $\alpha \leq .001$.

for compressed reading courses offered in the six-week format were approximately 81% for Reading 54 and Reading 42 compared to 75% for Reading 43, Basic Reading Skills.

When controlling for social and academic background characteristics, success rates by course length were examined. Table 5 presents the distribution of success rates by selected social and academic background characteristics for students enrolled in developmental courses. With the exception of gender, a statistically and practically significant pattern of higher success rates in compressed-format courses was observed across all social and academic background characteristics. Students, irrespective of age, gender, and ethnicity, were more likely to successfully complete developmental courses offered in a compressed format than their counterparts enrolled in regular-length developmental education courses. This pattern was observed for students of all ethnic backgrounds, categories of age, as well as for students with cumulative grade point averages above and below 2.0. With respect to gender, a similar pattern was observed without statistical but with practical significance. That is, women experienced higher course success rates when both 6- and 8-week compressed classes were compared to their counterparts in 15-week classes.

Table 5. Success rates by course length and a set of social and academic background characteristics

Characteristic and success	5-6 week course	8-9 week course	15-18 week course
Gender	$\chi^2 = 1.348^*$		
Male	69.13	69.19	51.92
Female	71.98	74.12	57.34
Ethnicity	$\chi^2 = 214.667^{**}$		
Asian/Pacific Islander	77.78	87.75	62.20
African American	53.78	58.91	42.78
Latino	71.28	70.52	55.79
White	62.79	78.18	61.12
Other	72.22	69.96	55.70
Age	$\chi^2 = 10.785^{***}$		
Below 25	66.29	71.57	52.78
25 and Over	78.82	74.29	62.80
GPA	$\chi^2 = 77.554^{**}$		
Below 2.0	54.45	122.51	38.09
2.0 and over	76.91	77.42	63.28

Note. The total number of students is 21,165 for gender, ethnicity, age, and GPA.

* $\alpha = .510$.

** $\alpha \leq .000$.

*** $\alpha \leq .005$.

Although success rates for women and men enrolled in compressed-format courses exceeded corresponding rates for regular-session courses, women were more likely to be successful in compressed courses than men. For women enrolled in compressed developmental education courses, the success rate was about 73% compared to a success rate of 67% for men enrolled in compressed developmental courses. Higher success rates for women were also observed in regular-length session courses.

Higher success rates in compressed developmental courses also were observed for all of the major ethnic groups at the college. Asian and Pacific Islander students enrolled in compressed developmental courses had the highest successful course completion rates (82%), followed by Latino students (71%), White students (69%), and African American students (56%). A nearly identical pattern was observed for regular-length developmental courses with one notable difference. In regular-length courses, slightly higher success rates were observed for White students compared to Latino students. In compressed developmental courses, the success rate for Latino students was 71.0% compared to 69% for White students. Success rates for Latino and White students enrolled in regular-length developmental courses were 56% and 61% respectively (see Table 5).

Students of all age groups performed better in compressed developmental courses than did students enrolled in regular length courses. Students aged 25 years and above had a success rate of 77% in compressed courses compared to 63% for their counterparts enrolled in regular-length courses. Traditional age students followed the same pattern. The success rate for traditional age students in compressed courses was 68% compared to 53% for their counterparts enrolled in the regular-length courses. However, nontraditional age students (those aged 25 and older) were more likely to succeed than traditional students (those ages 17 to 24 years) in compressed format courses. The success rate for nontraditional students was 77% compared to 68% for traditional students.

Students with cumulative grade point averages below 2.00 performed better in compressed-format courses than their counterparts enrolled in regular-length courses. Among students with cumulative grade point averages below 2.00, approximately 54% successfully completed compressed courses compared to approximately 38% successfully completing regular-length courses. Students with grade point averages above 2.00 also fared better in compressed courses. The success rate for students with grade point averages above 2.00 enrolled in compressed basic skills courses was nearly 77% compared to 63% for their counterparts enrolled in the equivalent courses offered during the regular session.

DISCUSSION AND CONCLUSION

Evaluation of Research Questions and Hypotheses

The results of this study clearly demonstrate that for students enrolled at this particular community college, developmental course length is associated with statistically and practically significant differences in course success in developmental education courses, and these differences are consistently observed across all categories of age, gender, and ethnicity. With regard to the research questions and hypotheses, the results of this study provide evidence that there is a benefit to offering community college developmental education courses in a compressed format, and the benefit extends to all categories of students.

IMPLICATIONS FOR PRACTICE AND FUTURE RESEARCH

The results of this study offer key insights for the practice of developmental education in the community college and future research in this area. With regard to the practice of developmental education in the community college, it is imperative that practitioners understand that the notion that developmental students need more time (i.e., longer courses offered over a greater number of weeks) to master developmental material may be faulty. This study demonstrates that developmental students are quite capable of successfully assimilating course material in a shorter amount of time when the material is presented in a more intense, compressed format. Practitioners at the community college may want to reconsider the way that they offer developmental courses so that the achievement and progress of students through the developmental education curriculum can be maximized.

Experimenting with offering developmental courses in a compressed format also affords community colleges the opportunity to further examine developmental students' progress and achievement through a sequence of developmental education courses. Specifically, are students who take a sequence of compressed developmental courses better able to retain material and progress through the developmental curriculum than those students who take a sequence of developmental courses offered in a more traditional format? While this study demonstrates the efficacy of compressed developmental education offerings for community college students enrolled in one course, it does not address the efficacy of offering a sequence of compressed developmental education courses. Future research in this area

is crucial for practitioners faced with making instructional policy decisions with respect to their developmental education programs. Such research is important to support community colleges in successfully developing innovative and effective programs and services that increase developmental students' achievement and progress toward educational goals.

It should be noted that while this study demonstrates that course length is associated with success in one developmental course, it does not illuminate the elements of compressed courses that may play a substantive role in developmental student success nor does it address the role of student motivation and commitment in course success. For example, does the intensity of compressed courses offer community college students more opportunities for getting to know one another and, thus, facilitate the creation of informal learning communities among students who might not ordinarily participate in such experiences? Or do compressed courses simply reduce opportunities for students' life experiences, such as family and work responsibilities, to interfere with successful course completion?

This study does not examine the relationship between motivation and commitment and successful course completion. For example, are higher successful course completion rates in compressed courses a reflection of a higher degree of commitment and motivation on the part of students? Is there a possibility that higher success rates would still be observed after the effects of motivation and commitment are accounted for? All of these issues need to be further examined in order to more fully understand the efficacy and benefits of offering a compressed developmental education program for community college students. Future research should attempt to discover the nature of the relationship between curriculum delivery strategy and student attitudes and behavior.

This study represents an exploration into the efficacy of a different curriculum delivery strategy for community college developmental education students: offering developmental education courses in a compressed format. It reveals that there is a relationship between successful course completion in developmental education courses and course format. It adds to the practice of education by proposing further exploration of alternative curriculum delivery strategies for community college developmental education programs that are based upon developing and offering curriculum in ways that are demonstrated to have empirically-based positive outcomes for students. Further research should be conducted to more adequately assess the efficacy of compressed developmental education courses and programs for community college students.

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ARE COMMUNITY COLLEGES "HOME-SCHOOL FRIENDLY?": AN EXPLORATION OF COMMUNITY COLLEGE WEB SITES AS AN INDICATOR OF "FRIENDLINESS"

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With the popularity of home schooling strengthening at the secondary level, the prevalence of home schoolers now attempting to enter higher education is escalating. Community colleges, however, may be inadvertently closing our doors to home-schooled applicants. This content analysis study uses the Home School Legal Defense Association's recommended college admissions policies as an indicator of home-school friendly cultures in an inductive analysis of admissions information appearing on 105 community college Web sites in an 11-state accreditation region. Findings suggest that community college Web sites frequently do not provide information for home-schooled applicants, and home-school admissions policies often differ from college to college. Suggestions for improvement include customizing information to better meet the needs of the individual audiences visiting the site, adding a "doorway" or "landing page," posting YouTube-type videos, and providing interactive functions—such as instant messaging and live online chat rooms—for students to communicate with admissions officers as they explore college options. Implications for community colleges and future research are also provided.

An estimated 1.5 million students were being home-schooled in the United States in spring 2007 (Bielick, 2008), a sizeable increase from the 850,000 students in 1999 (Bielick, Chandler, & Broughman, 2001). In addition, the percentage of school-aged population that

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