



### **Literature Review on Compressed Courses and Course Success:**

This literature review is going to cover scholarly work examining the relationship between term and/or course length and student success. This covers work written since 2000 and will involve compressed courses at various institutions in various contexts.

Logan and Geltner (2000) did a study involving students at Santa Monica College to review on compressed courses (six or eight weeks long) and how it impacted success rates. The study compared students in the compressed courses versus the exact same courses being offered within a normal 16-week format. The highest success rates were found in the 6-week compressed courses with 8-week being the next highest level of success rates. One example of this was in the study of a single instructor who taught 6, 8, and 16-week courses. For those in the 6-week course, the success rate was over 90%, whereas the 8 and 16-week courses had a similar success rate of a little over 80%. In addition to their success rates, the study found that students in the 6-week courses performed better with regards to their retention of knowledge and GPA. A partial reasoning for this is due to the intense mental involvement that occurs with the compressed courses.

Spurling (2001) extends this research by examining the relationship between intensity of study and student success. Spurling tested two hypotheses:

- **The Compression Hypothesis** was examined student success in relation to compressing the length of the term while increasing the amount of time per week spent in class.
- **The Intensity Hypothesis** examined student success for students taking multiple courses within the same subject area.

Both hypotheses were examined using data from Mathematics, English, and ESL courses and both proved to be effective and increased student success independent of each other. Due to limitations in the data, Spurling was unable to determine which hypothesis was more effective within Mathematics or English courses. Table I is a summary of Spurling's study result as provided by Almquist (2015):

**Table I: Spurling's Study on Course Success by Term and Subject**

Term	Term Length	English	Math	ESL
Fall	17.5 Weeks	60%	51%	66%
Spring	17.5 Weeks	64%	54%	69%
Summer	6 Weeks	74%	57%	76%

Source: Almquist (2015)

Sheldon and Durella (2010) examined the relationship between course length and course success in developmental education controlling for academic and social background characteristics. This research took place at a California community college and was centered on English, reading, and Math courses. The compressed courses being examined here were less than eight weeks in length. Students enrolled in these compressed courses were found to be more likely to succeed compared to their counterparts in traditional length courses. This difference was practically and statistically significant and held up across all categories of age, gender, and ethnicity. Successful course completions were also observed to be higher among those taking the compressed courses relative to those taking traditional length courses. Table 2 shows the success rates across social and academic background characteristics:

**Table 2: Sheldon and Durella Reported Success Rates by Course Length and Social and Academic Characteristics**

Characteristics and Success	5-6 Week Course	8-9 Week Course	15-18 Week Course
Gender – Male	69.13	69.19	51.92
Gender – Female	71.98	74.12	57.34
Ethnicity – Asian/Pacific Islander	77.78	87.75	62.20
Ethnicity – African American	53.78	58.91	42.78
Ethnicity – Latino	71.28	70.52	55.79
Ethnicity – White	62.79	78.18	61.12
Ethnicity - Other	72.22	69.96	55.70
Age – Below 25	66.29	71.57	52.78
Age – 25 and Over	78.82	74.29	62.80
GPA – Below 2.0	54.45	122.51	38.09
GPA – 2.0 and Over	76.91	77.42	63.28

Source: Sheldon and Durella (2010)

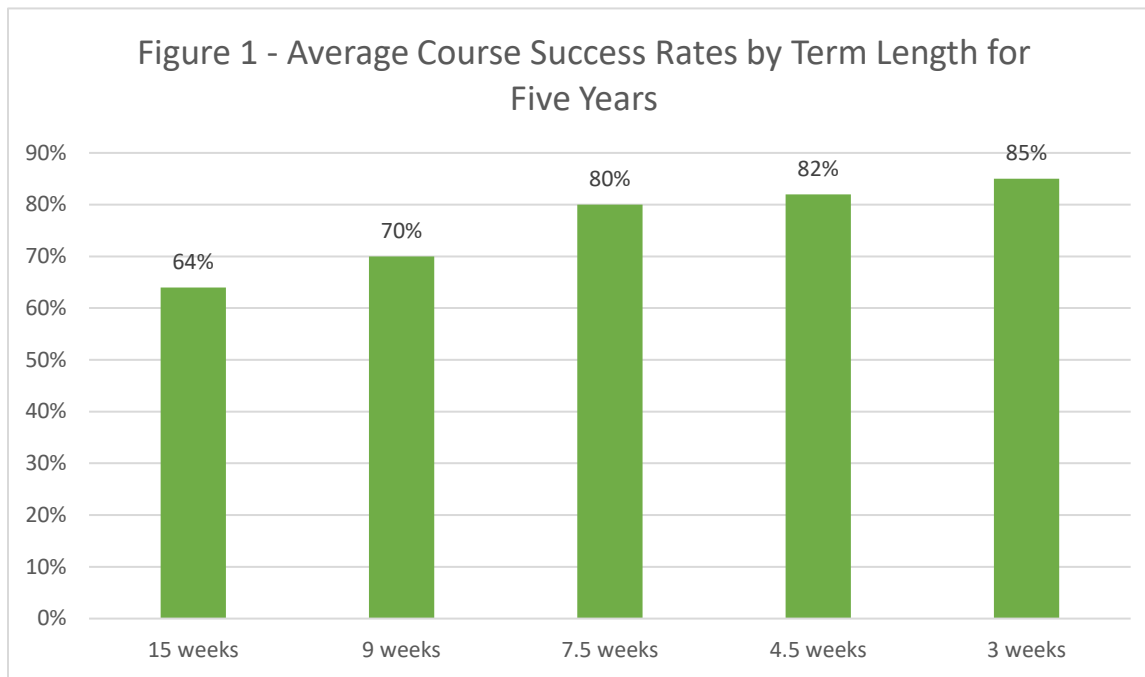
Tatum (2010) conducted a survey of existing literature regarding accelerated courses to determine what the research had to say regarding the effectiveness of accelerated courses. The research being reviewed considered different populations at different levels of education but the trend in the research indicated that there is little to no difference between accelerated versions of courses and programs relative to traditional versions of courses and programs. Where there was a difference, it was primarily in favor of the accelerated class or program.

Like Tatum's work, Almquist (2015) studied prior work that examined time-compressed courses, courses where the amount of instructional content and contact remains the same while the length of the course is reduced, and student success. All but one of the research projects examined found that time-compressed courses yielded higher success rates:

Setting	Author	Year	N	Term Lengths Studied (weeks)					Reported Format(s) with Higher Success Rates(s)
				3-4	5-6	7-8	9-10	14-18	
University	Coleman, Bolte, & Franklin	1983	Not provided				X	X	Mixed results
	Martin	1997	Not provided	X	X	X		X	Time-compressed (all but one discipline)
	Mensch	2013	Not provided	X	X			X	Time-compressed
Community College	Spurling	2001	71,907		X			X	Time-compressed
	Geltner & Logan	2001	401,872		X	X		X	Time-compressed
	Green & Almquist	2012	464,958	X	X	X	X	X	Time-compressed
	Green & Almquist	2015	397,746			X		X	Time-compressed

Source: Almquist (2015)

Figure 1 shows data from Green & Almquist's (2012) study which shows course success rates by term length for five-year aggregate data:



Source: Green & Almquist (2012)

Faught, Law, and Zahradnik (2016) conducted a study commissioned by the Higher Education Quality Council of Ontario and considers the impact of accelerated education at Canadian Universities. Most students taking part in the study indicated that they preferred to have their courses in an accelerated format (over 95%). The study found that students were not different with regards to their knowledge retention in the accelerated learning course and there was no significant difference between the final course average between traditional and accelerated courses.

Tanner (2018) took a closer look at Shasta College's ACE program – a program designed to meet the needs of nontraditional students (i.e. working adult friendly). Students in the ACE-cohort had a success rate of 90.2% in their compressed courses compared to 77.6% of the non-ACE-cohort taking compressed courses (this was not compared to those taking traditional courses). It is important to note that this could have been due to a multitude of factors that impact this population (taking fewer courses,

having a higher level of familiarity with compressed classes, etc.). This does demonstrate that high levels of course success are viable for classes in a compressed format. Interestingly, there was no statistical difference in the frequency or value of interactions between students and their instructors between ACE-cohort and non-ACE cohort students.

Guillory (2018) examined course retention rates for 5-week, time-compressed, face-to-face courses compared to 16-week courses to see what the differences were regarding retention rates. Guillory compared College Algebra and Composition I courses to see if there was a difference between retention rates with these different time frames. The result was there was no statistical difference between the retention rates for both time-compressed and regular courses. The implication here is if this correlation holds true generally, there should be offerings of courses of different lengths to give students options. This is especially true given that Swenson (2003) noted that there is no research supporting the idea that a 16-week course is the best length to build a course around.

Holzweiss, Polnick, Lunenburg (2019) utilized a single case study approach by studying a fully online master's program in Instructional Leadership at a four-year institution. They examined traditional and compressed versions of each course that was taught by the same instructors. In addition to examine outcomes, they surveyed students, interviewed instructors, and reviewed the syllabi of these courses. Holzweiss et al. state that while students performed well in compressed courses, they did report stopping in good academic behavior of reading all of the material and of writing drafts of papers. Instructors had a more difficult time providing timely feedback. There was also a description from both sides of feeling overwhelmed with work. As a result, they recommended the following:

1. Carefully curating the types of courses that would be offered in a compressed format
2. Carefully crafting assignments to create a kind of routine in these compressed courses
3. Focus on what student outcomes are most important and relate that to course content

4. Offer flexibility with regards to assignment deadlines and grading through formal course policies
5. Have instructors communicate frequently with students before and during the course
6. Providing guidance to students about time management in the course.

Pearse (2019) conducted a study which differed from prior research by focusing both on compressed course formats and success rates but also the relationships between the compressed courses and the hybrid modality of lecture delivery. Success rates were examined for 8-week and 16-week courses that were delivered using a face-to-face mode, a hybrid model, and an online model. This data was reviewed for English courses offered during three different semesters for Tarrant County College in Fort Worth, Texas. There was no significant relationship between the way in which courses were being delivered. There were higher success rates for 8-week courses compared to 16-week courses and this difference was statistically significant. Relative to face-to-face courses, success rates were higher in online or hybrid courses. There were the highest amount of completions and success for 8-week courses offered online or using a hybrid modality.

### **Summary:**

In the studies that were reviewed, a few key findings stood out. First, in almost every instance where time-compressed courses were compared to traditional length courses, the success rates for the time-compressed courses were the same or higher. Second, an implication of these findings is that we should offer more variations in course length to accommodate for students with various needs and time constraints. Lastly, Pearse's (2019) study indicated that the modalities of learning may not be an effective predictor of student success relative to course length. This will be something that will require more of a careful examination to understand how modalities of learning interact with course length and, ultimately, student success.

**Sources:**

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