WHAT FACTORS INFLUENCE STUDENT DECISIONS TO DROP ONLINE COURSES? COMPARING ONLINE AND FACE-TO-FACE SECTIONS

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Purpose

This research is intended to inform a theoretical model of online retention, and to support the development of effective support services for online learners. Specifically, we ask: What are the reasons postsecondary students give for dropping out of online courses?

Literature Review

Booming enrolment in online education continues worldwide, with particular growth in Asia, India and Latin American countries expected (GIA, 2017; ICEF, 2017; Docebo, 2016). However, online attrition is reported to be 7-20 percentage points higher than face-to-face rates (see Hachey, Wladis, & Conway, 2013). Yet, the specific reasons for this gap remain under-researched/unclear (Jagger, 2013). Diaz (2002) notes that "the mere fact of high drop rates is not necessarily indicative of academic non-success" but may reflect a mature decision on the part of students who are characteristically different from face-to-face students. There is strong evidence that students in online courses are more likely to be female, older (e.g. over 24 years old), employed and financially independent, married with children, and with other life responsibilities (Johnson & Mejia, 2014; Shea & Bidjerano, 2014; Wlaids, Hachey, & Conway, 2015; Xu & Jaggars, 2011a; 2011b). These factors have been connected to higher rates of time poverty, which has been shown to mediate college outcomes (Wladis, Conway, & Hachey, 2016b).

In a meta-review, Lee and Choi (2011) found only seven empirical studies which seek student reasons for dropout. For example, Willigig and Johnson (2009) (*n* = 10 masters students) report that students dropped out of an online program due to: personal issue (i.e. lack of time; family), work reasons, program reasons (course workload/ difficulty) and technology difficulty. The other studies noted by Lee & Choi also found some combination of these reasons. However, all previous studies have issues of small sample size and selection bias, which severely limits generalizability. Moreover, we know of no studies that employ our method of comparing online versus face-to-face students in the same course in order to do a direct comparison of potential differences in dropout motivation.

Conceptual Framework

No empirically validated model for online retention currently exists; the few models available (Kember, 1995; Rovai, 2003) are largely untested. However, there are substantiated models for face-to-face students. Tinto's model (1975; 1986; 1993) posits that family background, pre-college schooling, and individual student attributes influence student persistence through two *integration* variables: academic integration and social integration. Bean and Metzner's (1985) model contains three main input categories: environmental, academic, and background. Our conceptual model (see Figure 1) is based on Bean and Metzner's model since it is the only widely-validated model that focuses on the non-traditional students that are highly represented online; we add additional factors identified in the literature on online learning to existing categories in this model.

Method

A survey was conducted with students who were either enrolled in a fully online course at the City University of New York (CUNY), or who were enrolled in a face-to-face section of one of the courses that was offered online. Students who dropped the course ($n = 780$) were asked about their reasons for dropping and 702 responded. Course medium was classified by the percentage of instruction that occurred online (fully online is $\geq 80\%$; face-to-face is $< 20\%$). Courses that fall in between were classified as hybrid courses, and have been excluded because of the difficulty of distinguishing between hybrids with large differences in proportion of online content. By comparing fully online to face-to-face courses, the distinction allows for more straightforward comparison.
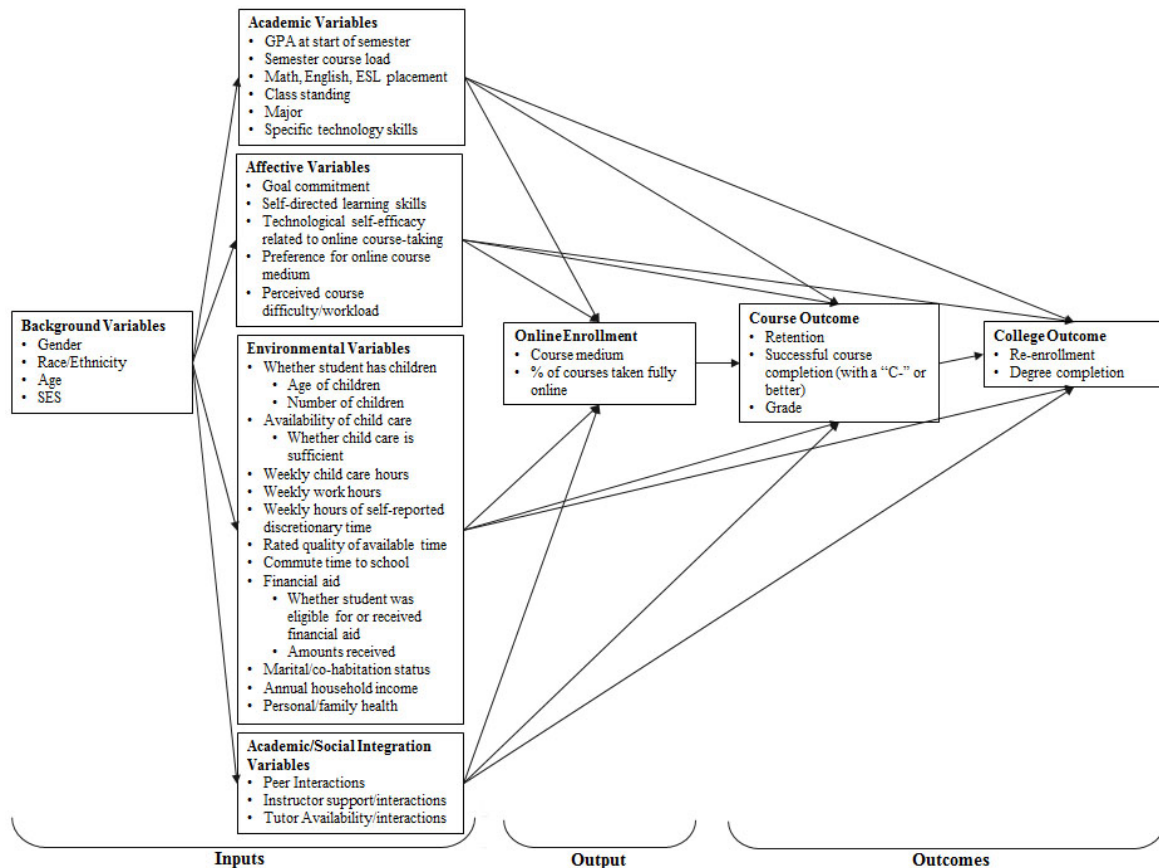
Figure 1. Conceptual Model of Online Retention

Responses to a survey, given to a different sample the prior year, were used to develop a coding scheme. Three coders read all responses and developed three coding schemes, organizing the types of answers given under hierarchical groups. All three coders discussed the categories and came to a consensus for a coding scheme, which was used in this study. Each response was coded by two coders. After the first round of coding, inter-rater reliability, as measured by Krippendorf's alpha (based on presence/absence of each code for each student) was 0.71 for individual sub-codes and 0.85 for larger categories. Then, coders went through a round of norming; many cases of disagreements involved subtle distinctions (e.g. one coder may have selected "teaching style did not fit student learning style" while another selected "quality of instructor"); to resolve this, many codes were more carefully defined to clarify such distinctions. After the second round of coding, inter-rater agreement was 0.98 for individual codes and 0.99 for larger code categories. General trends were initially explored for all codes, however, for results reported here, analysis was limited to only those codes assigned to at least 20 students.

Results & Discussion

The most common reasons in both modalities for dropping a course related to specific course characteristics (most commonly cited: quality of the instruction/instructor; course workload/difficulty). Lack of time was the second most commonly cited reason (most commonly cited: personal time commitments; paid work; family commitments; other academic

demands on time). And performance in the course (e.g. course grade) was the third most commonly cited reason for dropping both online and face-to-face.

However, there were distinct differences in patterns of reasons given by online and face-to-face students (see Table 1). Online students were much more likely to cite specific course characteristics or a lack of time as their reason for dropping the course; whereas face-to-face students were more likely to cite financial circumstances, no longer needing that particular class for their degree, or a lack of feeling of fit/belonging. Students in fully online and face-to-face classes cited course performance as a reason for dropping at almost identical rates.

Table 1:   Reasons for course withdrawal by course medium–general trends

	fully online	face-to-face	*F*-test	p
course characteristics	58.8%	44.7%	7.20	0.007
lack of time	40.4%	33.0%	3.16	0.076
money/resources	0.9%	4.4%	2.69	0.101
no longer need this particular class for degree	0.9%	2.9%	1.26	0.262
fit/belonging	0.9%	2.3%	0.73	0.392
class performance	19.3%	19.8%	0.07	0.798

Percentages indicate proportion of students who gave responses that were coded at least once with a given code.
Students who gave no explanation for dropping are included in the denominator, so the maximum percentage is 90%.

Table 2:   Reasons for course withdrawal by course medium–detailed course characteristics

	fully online	face-to-face	z-score	p
course workload	31.6%	8.6%	7.01	0.000
online medium didn't fit learning style	15.8%	2.0%	6.99	0.000
quality of instructional materials	7.9%	1.1%	4.76	0.000
quality of peer interaction	5.3%	0.6%	4.09	0.000
quality of instruction/instructor	37.7%	55.9%	-3.59	0.000
difficulty understanding instructor expectations	7.0%	2.7%	2.37	0.024
course difficulty	28.1%	19.4%	2.12	0.042
instructor teaching style did not fit learning style	6.1%	10.1%	-1.32	0.093
did not like course content	3.5%	6.3%	-1.17	0.121

Percentages indicate proportion of students who gave responses that were coded at least once with a given code.
Students who gave no explanation for dropping are included in the denominator, so the maximum percentage is 90%.

Table 3:   Reasons for course withdrawal by course medium—detailed reasons related to time

	fully online	face-to-face	z-score	p
work	26.3%	16.7%	2.47	0.019
other academic demands	19.3%	12.0%	2.13	0.041
family	21.1%	14.3%	1.86	0.070
personal time commitments	30.7%	23.3%	1.71	0.093
commute	0.0%	1.2%	-1.18	0.120
time quality	2.6%	4.5%	-0.92	0.179
general lack of time	11.4%	8.6%	0.98	0.246

Percentages indicate proportion of students who gave responses that were coded at least once with a given code.
Students who gave no explanation for dropping are included in the denominator, so the maximum percentage is 90%.

Because both course characteristics and lack of time were cited at different rates online versus face-to-face, patterns of sub-codes were analysed in each category. Word clouds were generated using QDA Miner, to visualize the differences in patterns of reasons given by students fully online versus face-to-face (see Figures 2 and 3). These figures reveal both strong commonalities (e.g. quality of instruction is overwhelmingly the most important factor for both groups) as well as differences (e.g. issues related to time were more prominent for students enrolled online).

Course Characteristics

While the most commonly cited reason for course dropout in both groups was the quality of the instruction/instructor in the course, face-to-face students cited this reason at much higher rates (56% vs. 38%). While many themes related to instructional quality were apparent in both modalities (e.g. unresponsiveness of instructor; unsupportive environment), there were specific patterns only observed face-to-face. Specifically, many students cited lectures that were disorganized or off-topic, or that were difficult to understand, for example because they were delivered too quickly or because the instructor had an accent.

> *The professor was unorganized, did not cover all material and shouted out homework at the end of class when everyone was on their way out of class.*

> *She had a heavy accent which made it even harder to understand her and she skipped steps without explaining them when teaching new topics.*

Figure 2. Word cloud of reasons for face-to-face course dropout
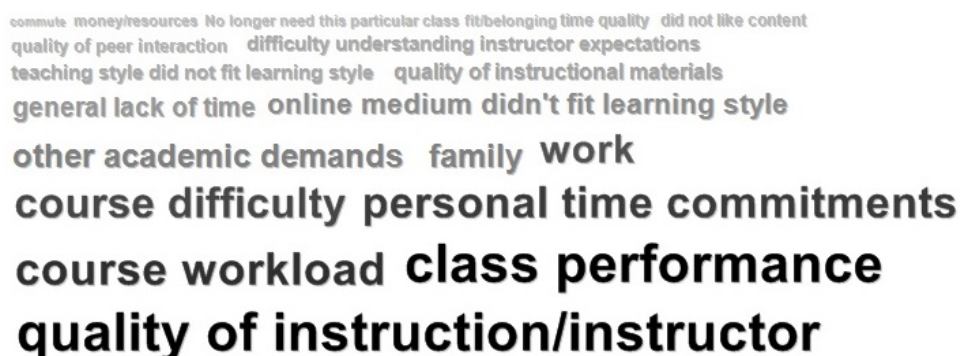
Figure 3. Word cloud of reasons for fully online course dropout

Online students were much more likely to cite the course workload (32% vs. 9%) and course difficulty (28% vs. 19%) as a reason for dropping.

> *I found the class hard to keep up with. The readings were intense and in heavy amounts. The assignments were every week and it was just too much.*

> *The workload required for the course was overwhelming…face to face courses taken during the same semester did not require the same amount of time.*

Even though cited at lower rates, online students were also more likely to say that they had dropped the course because of the quality of instructional materials (8% vs. 1%) or the quality of peer interactions (5% vs. 1%).

> *The syllabus/blog was very intricate. There were so many places to find the information.*

> *I was forced to do group work. My group members did not want to do anything… I dropped because I wasn't putting my grade in the hands of lazy classmates…*

Sixteen percent of students who dropped a fully online course stated that the online medium didn't fit their learning style (in contrast, 2% of face-to-face students listed required work online as a reason for dropping).

> *I felt I wasn't understanding the material fully as I would have in a classroom atmosphere.*

Time limitations

Students in fully online courses were much more likely to say that time they had to spend on work was a factor in their decision to drop the course (26% vs. 17%).

> *Because of my work schedule, I was unable to dedicate the time needed to do the necessary reading and turn in my assignment in a timely fashion.*

Students in online courses were also much more likely than those in face-to-face courses to cite time commitments to family (21% vs. 14%) and other academic demands (suggesting a general lack of time for all of their courses) (19% vs. 12%) as reasons for dropping the class.

> *It got hard for me to handle the class since it requires a lot of reading plus my duties as a mom and working as well since I am a single mother taking 3 other classes it's hard.*

Both groups cited personal time commitments as a reason for dropping, the majority of which were personal health issues; online students were more likely to report personal time

commitments as a reason for dropping the course, but these differences were not as significant as for other time-related sub-categories.

> ….*I'm getting a divorce. So all this was just too much for me to take on at the same time.*

Significance/Implications

This study suggests that issues related to time are cited more commonly as the reason for dropping an online than face-to-face course. This corroborates resent research that online students are more time poor (Wladis, Conway, & Hachey, 2016b) and that the quantity and quality of time that students have for college has a direct effect on persistence (Wladis, Conway, & Hachey, 2016b). Course workload, also highly cited by online students, could also be classified as a time issue. This suggests a direction for future investigation: did online students just have less time and therefore cite workload; is perceived workload higher online than face-to face because of characteristics of the online environment (e.g. reading on own instead of attend lectures); or was the workload actually higher online?

The results of this study also suggest that although the quality of the instructor is important to persistence in both mediums, face-to-face students perceived it to be a bigger factor. A closer look at student responses suggests that this difference is likely due to student experiences of oral lectures. However, there are other possible interpretations, such as instructor self-selection: those instructors who decide to develop and teach online courses may already be more interested in investing time into pedagogy and innovative teaching approaches. While less commonly cited, quality of course materials and peer interactions were found to be more predictive of course dropout online than face-to-face. These relate to aspects of online course design and seem to support Travers (2016), who cites a need for data collection on student performance and retention from programs where online instructors receive pedagogical and instructional design training versus those with only technology training.

References

1. Allen, E., & Seaman. J. (2016). *Online report card: Tracking online education in the United States.* Retrieved from http://onlinelearningsurvey.com/reports/onlinereportcard.pdf

2. Bean, J., & Metzner, B. (1985). A conceptual model of non-traditional undergraduate student attrition. *Review of Educational Research, 55*, 485-539.

3. Diaz (2002). *Online drop rates revisited.* Retrieved from http://www.technologysource.org/article/online_drop_rates_revisited/?utm_campaign=elearningindustry.com&utm_source=/5-ways-humanize-the-elearning-experience&utm_medium=link

4. Docebo (2016). *e-Learning market trends and forecasts: 2017-2021.* Retrieved from https://eclass.teicrete.gr/modules/document/file.php/TP271/Additional%20material/docebo-elearning-trends-report-2017.pdf

5. GIA (2017). *e-Learning: A global strategic business report.* Retrieved from http://www.strategyr.com/PressMCP-4107.asp

6. Hachey, A. C., Wladis, C., & Conway, K. M. (2013). Balancing retention and access in online courses: restricting enrollment… Is it worth the cost? *Journal of College Student Retention: Research, Theory & Practice, 15*(1), 9-36.

7. ICEF (2017). *Online learning still expected to pressure traditional higher education models.* Retrieved from http://monitor.icef.com/2017/04/online-learning-still-expected-pressure-traditional-higher-education-models/

8. Jaggars, S. S. (2013). *Choosing Between Online and Face-to-Face Courses: Community College Student Voices.* (No. CCRC Working Paper No. 58). Community College Research Center, Columbia University.

9. Johnson, H., & Mejia, M. C. (2014). *Online Learning and Student Outcomes in California's Community Colleges.* San Francisco, CA: Public Policy Institute of California.

10. Lee, Y., & Choi, J. (2011). A review of online course dropout research: Implications for practice and future research. *Education Technology Research and Development, 59*, 593-618.

11. Kember, D. (1995). *Open learning courses for adults: A model of student progress.* Englewood Cliffs, NJ: Educational Technology Publications.

12. Rovai, A. (2003). In search of higher persistence rates in distance education online programs. *Internet and Higher Education, 6*, 1-16.

13. Shea, P., & Bidjerano, T. (2014). Does online learning impede degree completion? A national study of community college students. *Computers & Education, 75*, 103-111.

14. Travers, S. (2016). Supporting online student retention in community colleges: What data is most relevant? *Quarterly Review of Distance Education, 17*(4), 49-61.

15. Tinto, V. (1975). Dropouts from higher education: A theoretical synthesis of recent research. *Review of Educational Research, 45*, 89-125.

16. Tinto, V. (1986). Theories of student departure revisited. In J. Smart (Ed.), *Higher education handbook of theory and research* (pp. 359-384). New York, NY: Agathon.

17. Tinto, V. (1993). *Leaving college: Rethinking the causes and cures of student attrition.* Chicago, IL: University of Chicago Press.

18. Willigig, P. A., & Johnson, S. D. (2009). Factors that influence students decisions to drop out of online courses. *Journal of Asynchronous Learning Networks, 13*(3), 115-127.

19. Wladis, C. W., Conway, K. M., & Hachey, A. C. (2016a). Assessing readiness for online education – Research models for identifying students at risk. *Online Learning Journal, 20*(3).

20. Wladis, C. W., Conway, K. M., & Hachey, A. C. (2016b). *Student Parents: Too Time-Poor for College?*

21. Wladis, C. W., Hachey, A. C., & Conway, K. M. (2015). The representation of minority, female, and non-traditional STEM majors in the online environment at community colleges: A nationally representative study. *Community College Review, 43*(1), 89-114.

22. Xu, D., & Jaggars, S. S. (2011a). The effectiveness of distance education across Virginia's community colleges: Evidence from introductory college-level math and English courses. *Educational Evaluation and Policy Analysis, 33*(3), 360-377. doi:10.3102/0162373711413814

23. Xu, D., & Jaggars, S. S. (2011b). *Online and hybrid course enrollment and performance in Washington state community and technical colleges.* (CCRC Working Paper No. 31) Community College Research Center, Columbia University. Retrieved from http://ccrc.tc.columbia.edu/media/k2/attachments/online-hybrid-performance-washington.pdf