The Impact of Online Teaching on Faculty Load – Revisited:
Computing the Ideal Class Size for Traditional, Online, And Hybrid Courses

Lawrence A. Tomei, Robert Morris University, USA
Douglas Nelson, Seton Hill University, USA

ABSTRACT
In 2006, The Impact of Online Teaching on Faculty Load: Computing the Ideal Class Size for Online Courses, shared the results of early research into the ideal class sizes for traditional (i.e., face-to-face) and online courses based on faculty load. The research was limited to a single instructional technology class taught at the graduate level in both formats. The initial study analyzed the impact of distance learning demands on faculty teaching load and computed the ideal class size for both traditional and online courses. It determined that the ideal class size for graduate courses in technology was 17 students for traditional and 12 students for the distance learning format. This article expands the initial research by examining two universities and their: (1) undergraduate, graduate (i.e., master’s), and doctoral-level courses; (2) traditional, online, and hybrid formats; (3) both 8- and 15-week terms; and, (4) three academic disciplines of general psychology, education, and business. Ideal class sizes are presented for a wider range of post-secondary courses.

KEYWORDS
Faculty Load, Ideal Class Size, Online Teaching, Traditional vs Online Teaching

INTRODUCTION
In 2006, the Journal of Technology and Teacher Education (JTATE) published an initial study conducted by one of the authors of this manuscript. In that study, The Impact of Online Teaching on Faculty Load: Computing the Ideal Class Size for Online Courses, Tomei (2006) shared the results of early research into the ideal class sizes for traditional (i.e., face-to-face) and online courses based on faculty load. His research was limited to a single instructional technology class that he taught at the graduate level in both formats.

The study examined the impact of replacing didactic instruction, face-to-face advisement, and conventional evaluation with distance-based delivery, virtual counseling, and online assessment. It analyzed the impact of distance learning demands on faculty teaching load and computed the ideal class size for both traditional and online courses. The study determined that the ideal class size for graduate courses in technology was 17 students for traditional and 12 students for the distance learning format.

Since that initial publication, the JTATE article has been cited in numerous studies and investigations seeking to establish minimum class sizes, faculty teaching loads, and course scheduling.
paradigms. In one popular platform for sharing research papers (Academia.edu) the now-dated study was cited 108 times in 2016-2018; another 147 times in other publications.

Comments received from readers and scholars extend both their appreciation for the initial research and their desire to see the study updated given the explosion of distance education courses and recent advances in instructional technology.

This paper expands the initial research by examining two universities and their: (1) undergraduate, graduate (i.e., master’s), and doctoral-level courses; (2) traditional, online, and hybrid formats; (3) both 8- and 15-week terms; and, (4) three academic disciplines of general psychology, education, and business. The research questions themselves changed very little from the initial study.

Herein lies the results of two-and-a-half years (seven academic semesters) of research and data gathering from the Fall 2015 through Fall 2017 semesters. We present ideal class sizes for a wider range of post-secondary courses with the hope that others will expand further on both the breadth and depth of this research.

LITERATURE REVIEW

The original article (Tomei, 2006) offered readers a scrutiny of the technologies just being introduced to online learners and faculty. Those interested in what has now become an historical examination of the evolution of technology should refer to that initial publication (The Impact of Online Teaching on Faculty Load: Computing the Ideal Class Size for Online Courses, Journal of Technology and Teacher Education (Volume 14, Number 3, pp. 531-541).

For the purposes of this revised study, the literature reviews move forward from 2006 to present day.

According to Seaman, Allen, and Seaman (2018), by 2016, 6.3 million students were taking at least one distance learning course. Of this population, 18 percent were at non-profit institutions, 13.1 percent were at for-profit institutions, and 68.9 percent were at public institutions. Undergraduate students comprised 5.2 million of this population while graduate students numbered the remaining 1.1 million. The proportion of higher education students taking advantage of distance learning has increased each year from 27.1 percent in 2012 to 29.7 percent in 2015. Nearly half of those students (47.2 percent) take distance courses exclusively. Research indicates that students perceive significant advantages for online learning over traditional methodologies. These advantages include better use of time and more flexible access to courses and class schedules (O’Malley & McCraw, 1999).

With the evolution of Internet connectivity, a third form of learning has arisen in classroom modalities. Added to this revised study, the hybrid course (sometimes called “blended learning”), offers the idea that students learn best through a combination of online and traditional classroom instruction that allows them some face-to-face interaction while still progressing at their own pace. Students in blended learning classrooms scored 18 percent higher on spring 2015 reading tests and 7 percent higher in math than those in traditional classrooms (Deruy, 2015).

Further, Lips (2010) estimated that, by the end of 2010, at least 9 million students were doing some form of blended learning for at least a portion of their day. There is other data to suggest that hybrid learning is increasing at a geometric rate.

The Online Learning Consortium (Figure 1) estimated that by 2020, enrollment in online courses is expected to reach 12 million students. Finally, Rhea (2017) found that 73 percent of college faculty respondents said they already use the blended model.

It is common practice for higher education administrators to view distance learning-based courses as the “mother lode” for sizeable tuition revenue increases. After all, as reported in our 2006 initial study, to the uninitiated, the argument could be made that if a traditional classroom teacher can accommodate a class of 25 students with the demands of face-to-face instruction, scheduled office hours, and individualized assessment, why shouldn’t an online instructor be capable of handling 50 students? Why not a hundred? After all, goes the contention, online learning is assisted by computer,
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