

Scaling Up: Maintaining Course Quality with Increased Class Size

Business schools, colleges, and universities are under ever-increasing pressure to be more productive in delivering high-quality undergraduate courses, and this has resulted in larger and larger class sizes (AP, 2007). Continually escalating costs and higher enrollments force the issue each semester – how can we increase class size while maintaining or improving the current quality of education? Much of this pressure can be released by offering online sections for popular courses in management (e.g., intro to O.B.), but despite an explosion in these online offerings, in-person college enrollment is still growing as students (and instructors) ~~still~~ seek the advantages and outcomes of traditional college courses (Benton & Pallett, 2013). The perception remains that smaller class sizes result in better learning (Lynch & Pappas, 2016), and professors often resist expanding classes on principled grounds (Miner, 2016; Mulryan-Kyne, 2010). Nevertheless, higher instructor productivity may be required within a specific institutional context, and professors must determine the best ways to accomplish this (Sata, 2016).

Our question of interest here is how can we “scale up” courses that have been proven effective with smaller class sizes (< 30) to medium (50-80) or large sections (100+), particularly in environments that are resource-constrained? Due to the dynamics of larger classes, it is nearly impossible to keep the same structures, assignments, and individual relationships that are typically found in a smaller class (Benton & Pallett, 2013). Over the decades, traditional methods for dealing with medium and large sections – more lecturing, separate discussion sections, “objective” exams, etc. – are less helpful when projects, writing, and presentations are necessary for advanced undergraduate classes. The pressure to manage more students conflicts with the need for deeper levels of learning and engagement, and we will explore methods and approaches that may satisfy both needs within the limits of typical resource constraints.

Increased Class Sizes are Reality

The number of bachelors-level college students has increased dramatically, growing from 15.3 million students in fall 2000, to 20.4 million in fall 2017 (NCES, 2017). As the number of students increased, the graduation rate decreased. Currently, less than 10% of public four-year schools in the U.S. have graduation rates above 50% (Anschuetz, 2015), leading to a dramatic loss of human capital and wasted education dollars. To improve graduation rates, institutions such as the University of Houston, the University of Iowa, the University of South Dakota, Indiana University, and the University of Hawaii have started to guarantee a student's access to classes so that they can graduate in four years (Anschuetz, 2015; Bonnin, 2014; Marcus, 2016; UIowa, 2017), translating to more courses taken per student in a given year. Higher aspirations for graduation and the need to control costs have increased class sizes: classes that were previously less than 20 students may be targeted for 35 to 40; classes that were 35 may increase to 75; classes that were 75 increase to 250 or more; and many classes now have an online option.

Productivity pressure is not a new phenomenon; Kraft, Snodgrass, and Jauch (1987) speak of instructors feeling pressure since at least the 1980s. Trying to accommodate the needs of scholars (teaching excellence) and the needs of practitioners (preparing future managers), they observed that professors “are expected to strike a balance between turning out bookkeepers and renaissance persons; increased enrollments add to these pressures.” (Kraft et al., 1987, p. 51) More recently, attempts to bring bachelor's-level education to a larger fraction of a growing and very diverse student population have resulted in universities no longer collecting only “the best and the brightest” students from a privileged background. Today's diverse classes show variation in student “ability, interest and motivation” that has led to lower standards for teaching and learning (Mulryan-Kyne, 2010). And the problem of larger classes is no longer just a concern of

public universities. Private schools attempt perennially to keep smaller average class sizes as this greatly impacts their ranking (Morse & Brooks, 2017) and thus the number of applications (Benton & Pallett, 2013). However, even elite schools such as Stanford and Yale are seeking ways to grow class size to address rising attendance, and private liberal arts colleges are following suit (Anderson, 2014; Wittich, 2015). Private school admissions offices and deans admit that they do not know “how big is too big,” but they acknowledge that “public institutions have taken up most of the slack... [but] don’t we have a moral responsibility to step up and educate (more) talented students?” (Anderson, 2014). Greater teaching productivity can dramatically lower costs, as one small teaching college estimated that increasing average class size by one student saved the school \$1 million (Wittich, 2015).

Large Classes Bring Special Challenges

Though classes may suffer from being too small (e.g., less than 10 students) in that there is a lack of “critical mass” for projects and participation (Parnell & Bell, 2009), students, parents, and instructors tend to value smaller class sizes (MPCC, 2009). Smaller classes are reported to result in higher levels of learning with larger classes being less inspiring and less challenging (Benton & Pallett, 2013). However, marginal increases in class size (e.g., from 20 to 24 students) appear to have little effect on learning, and while adding some work for an instructor, small increases pose few issues for experienced instructors (Jaschik, 2015; Miner, 2016; Mulryan-Kyne, 2010). This is ~~held~~ in contrast to the present concern of a larger step up in class size, above 50 students, a level some have found to change the fundamental dynamics of class exchange (Wagner & van Dyne, 2016). This larger increase results in new problems for both the instructor and the student (Miner, 2016), or what Mulryan-Kyne (2010, p. 177) calls a “compact of disengagement.” This disengagement exhibits various symptoms including social loafing,

diminishment of the student through anonymity and passivity, absenteeism, constrained access to the instructor, fewer personal relationships between students, and increased “social distance,” leading to fewer in-class questions and “ceremonial” discussions (Mulryan-Kyne, 2010; Sata, 2016). Worse yet, research suggests that for classes that require concept synthesis and application (instead of just “fact learning”) students think less like professionals at the end of the course than they did when they started (AP, 2007). From the instructor’s perspective, this creates additional stress as there is less control of the environment, difficulty in student engagement and feedback, too much focus on the instructor, and increased grading (Miner, 2016). Professors find themselves cynical and frustrated, with fewer experiential tools available (Sata, 2016), somewhat naturally resulting in more lectures, formal examinations, and little to no writing, ending in decreased oral and written communication skills (Benton & Pallett, 2013; Miner, 2016).

Session Proposal

Our session will focus on the collection and sharing of instructional designs, activities, and best practices for scaling up class size for a writing-intensive, higher-level undergraduate course that in a small class typically requires individual reflection, synthesis, reasoning and argumentation. We will explore the scaling up from 25 to 75 students and then from 75 to 150 students. The session will be led by two instructors of different perspectives and backgrounds: one with over 25 years of experience in teaching at a major research university and the other a doctoral student with over 10 years of industry training experience but otherwise new to teaching at the college level.

After a brief introduction and grounding in the phenomenon, our facilitation will involve eliciting ideas and experiences from the session participants on how best to “scale up.” To enhance idea generation, we will provide data and large class concepts from the literature and

personal experience. For example, Miner (2016) and Sata (2016) recently offered several helpful suggestions, including: working with videos; personalizing the meeting space; using voice votes (“aye, nay”) instead of hand raising; using larger student groups (12 to 14) for projects; pairing up students for discussions; and meeting before/after class (outside the office). Michaelsen, Watson, Cragin, and Dee Fink (2016) and Warner (2016) advocated for team-based learning (in-person and online), and Weingart and Serey (1984) prescribed “friendly helper” actions by the instructor, such as extended office hours, open lunches, extra reviews sessions, and using TAs. Other techniques related to “active learning” and “active teaching” such as the “weekly pool” and “2-minute jottings” (Miner, 2016) also are interesting and may be explored within the session. These approaches, ideas from the session participants, and techniques used by the two session presenters (such as online group discussion sections, online journaling and various types of class projects) will then be used as a basis for small group discussions. Results from the small group discussions will be debriefed within the larger group, and outcomes will be organized by the facilitators into categories or typologies for subsequent sharing with participants.

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