Student Perceptions of Course Configuration: Hybrid and Face-to-Face Models

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Abstract

Hybrid or blended learning has gained enormous popularity in higher education because of its demonstrated ability to increase student learning, reduce undergraduate attrition rates, and maintain costs in an era of relentlessly increasing tuition. This study reviews the literature on hybrid or blended learning, enumerating both the benefits and liabilities of this type of instruction and the controversies surrounding it. The researchers then describe the two forms of a mixed-methodology survey instrument used to determine the satisfaction of primarily undergraduate students who are enrolled in separate sections of an introduction to education course, one taught in a traditional face-to-face mode and one in a blended configuration during two academic terms at a public regional comprehensive university in the Northwest portion of the United States. They then analyze the findings of the qualitative and quantitative data with recommendations for further research.

Keywords

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Introduction

Hybrid or blended learning has gained enormous popularity in higher education since the turn of the millennium because of its demonstrated ability to increase student learning, reduce undergraduate dropout rates, and maintain costs in an era of relentlessly increasing tuition rates (Brown, 2003; Dzuiban et al, 2005; Eryilmaz, 2015; Twigg, 2003; Vaughan, 2007). In an era of limited resources—especially institutional budgets and physical space on college and university campuses—and calls to maximize efficiency in allocating these increasingly scarce resources, hybrid or blended learning has proven itself to meet these challenges. It also shifts the focus of instruction from a presentation format—especially traditional lecturing and information dissemination—to one of more active learning on the part of students—especially discussion and debate (Association for the Advancement of Computing in Education, 2007). For these reasons and because of the steady increase in hybrid or blended learning at the undergraduate level—the most recent figures available indicate 34% of all institutions of higher education now offer this type of learning (National Center for Education Statistics, 2009), this instructional paradigm must be taken seriously.

Definition of Hybrid Learning

Hybrid learning is generally defined as the intentional combination of face-to-face and online instruction, what Bleed (2001) has so aptly termed "bricks and clicks." The University of Wisconsin at Milwaukee has posited a list of three distinguishing characteristics of hybrid courses: (a) online learning activities function as complements to face-to-face activities; (b) time in face-to-face sessions is reduced, but not eliminated; and (c) both types of instructional elements are designed to interact and support each other (Learning Technology Center, 2014). A more delimited two-part definition was crafted by Laster et al. (2005): (a) courses that integrate online with traditional face-to-face class activities in a planned, pedagogically valuable manner; and (b) a portion (this determined by the institution) of face-to-face time is replaced by online activity (as cited in Picciano, 2009). But, as Picciano (2009) has noted, a generally accepted definition of blended or hybrid learning is difficult to ascertain: "One school's blended is another school's hybrid, or another school's mixed mode" (p. 8).

  The goal of moving from the solely face-to-face instructional model to the hybrid or blended model is to meld the best features of traditional education with the best features of the online mode to promote active, self-directed learning for students and provide them with additional flexibility (Garnham & Kaleta, 2002). As Martyn (2003) elegantly expressed it, "The challenge is to find the optimal mix of online and face-to-face instruction that will leverage the major advantage of asynchronous learning (any time, any place), while still maintaining quality faculty-student interaction" (p. 19). However, there are several wrinkles in trying to establish a common structure for hybrid or blended learning. For example, some models tout the virtues of asynchronous online learning while others contend that synchronous online presence is more effective. Courses may have numerous permutations in how these ingredients are combined in hybrid or blended instruction; indeed, as Osguthorpe and Graham (2003) noted well more than a decade ago,

  The balance between online and face-to-face components will vary for every course. Some blended courses, because of the nature of their instructional goals, student characteristics, instructor background, and online resources, will include more face-to-face than online

strategies. Other courses will tip the balance in favor of online strategies, using face-to-face contact infrequently. Still others will mix the two forms of instruction somewhat equally. (p. 228)

There appears to be no universally agreed-upon definition of this mode of learning, but for the needs of this study, we use one that Poon (2013) has suggested that seems to us to be flexible enough to contain the variability of structure of the many incarnations of hybrid or blended learning: some combination of virtual and physical environments. For the sake of simplicity and consistency, we will use the term "hybrid instruction" to cover the idea of blended instruction as well in the rest of this article.

Benefits of Hybrid Instruction

As early as 1987, Chickering and Gamson identified seven practices that embodied quality undergraduate education: (a) contact between faculty and students, (b) cooperation among students, (c) active learning, (d) prompt feedback, (e) time on tasks, (f) high expectations of students, and (g) respect for diverse learning styles. Chickering and Gamson's principles have been easily adapted to distance learning courses, including the hybrid instructional model (Grant & Thornton, 2007). Coincidentally, most of Chickering and Gamson's principles overlay the best practices in teaching adults, known as andragogy (Knowles, 1984). Hybrid courses have been found to perform better than either face-to-face or online-only courses in increasing students' academic performance (Eryilmaz, 2015), in decreasing student attrition (López-Pérez et al., 2011), and in allowing students to develop a sense of community (Rovai & Jordan, 2004). This last aspect, as McKinney et al., (2006) have demonstrated, is crucial to student success. Moreover, well-designed hybrid courses have been found to increase student engagement with academic material (Meister, 2018; Vaughan, 2014). Another benefit of hybrid instruction is flexibility for students. Poon (2013) noted in the results of a survey administered to students enrolled in hybrid courses that "respondents perceived blended learning as a method that allowed them to study at their own pace and time and encouraged them to become more independent in regard to their own learning" (p. 11).

Research has suggested that increasingly faculty members continue to experiment in blending online with face-to-face instructional activities because they see such a melding as beneficial to their teaching (Graham & Robinson, 2007; Kaleta et al., 2007; Vignare, 2007; Yang & Wang, 2013). Babb, Stewart, and Johnson (2010) have documented several quality practices in hybrid instruction. These include user-friendly websites; well-designed assignments; online communications; learning community development; prompt, high-quality feedback; and communicating high expectations (as cited in Shea & Ernita Joaquin, 2015). The hybrid configuration also has the potential to increase opportunities for equitable participation among students, a crucial ingredient to student learning (Hu & Johnston, 2012).

Liabilities of Hybrid Instruction

The recipe for hybrid learning contains several potential liabilities. As Tallent-Runnels et al. (2006) have noted, students who have taken hybrid courses have been disappointed by both technical problems and inaccessibility. Because access to current technology is a requirement for student success in both online as well as hybrid courses, some students without this access suffer academically. In addition, students may find that not meeting with instructors exclusively in a

face-to-face setting presents them with a sense of diminished teaching presence. This often hampers students who need time to hear the instructor's opinions and examples as well as talk through assigned readings and assignment guidelines (Jackson & Helms, 2008).

Another potential problem with hybrid instruction is time management for students who are new to this learning configuration. Because participation in the online portion of hybrid instruction often competes with their home and work obligations, some students find themselves procrastinating more than they would in a traditional face-to-face course. However, as Jackson and Helms (2008) have noted, if instructors invest sufficient effort and resources to ensure solid organization of their hybrid course offerings, especially in making course materials available online, students are more likely to have few (or at least fewer) time-management issues.

Still another possible limitation of hybrid learning is the common criticism of such courses that "online components are bells and whistles tacked onto traditional courses, which are costly to add and only minimally enhance the course" (Stewart et al., 2009 as cited in Babb et al., 2010, p. 735).

Some Caveats for Implementing Hybrid Instruction

Although the research has indicated that hybrid instruction offers a variety of benefits for students, faculty interested in implementing this type of configuration should be aware of some of the potential problems associated with this form of learning. One of the most critical is professional development for instructors thinking about or just embarking on their journey to hybrid instruction. Much of the literature has addressed the need for a variety of professional development experiences, including workshops and training programs (Shea & Ernita Joaquin, 2015). In addition, students who have not taken hybrid courses before may need extensive preparation so they are ready to face the motivational and time-management demands that this learning paradigm places on them (Li et al., 2014). Another potential problem is providing meaningful feedback to students during virtual weeks of the course. Instructors must not only be precise in explaining student responsibilities during the online sessions but also ensure consistent and timely feedback for student work such as online course discussions—whether they be synchronous or asynchronous.

Finally, when initially offering a hybrid course, instructors should limit themselves to a single section. They should then focus on working out any structural or organizational glitches during this preliminary term so that when offered in succeeding terms, the course will coalesce for students. As with many innovations in education, incremental introduction will likely enhance success for both instructor and student.

Methods

This study used two survey instruments to measure the perception of students enrolled in either traditional face-to-face or hybrid sections of an undergraduate introductory education course. Each form of the survey was tailored to either face-to-face or hybrid instruction.

Setting. The setting was Eastern Washington University, a regional comprehensive university in the Northwest of the United States that operates on the quarter system. The institution enrolls about 13,000 students and has a significant percentage of non-traditional students: 10.8% are aged 25-29, 6.6% are aged 30-39, 2.3% are aged 40-49, and 1.1% are aged 50 or older (Eastern

Washington University, 2016a). Moreover, the entering freshman class in 2015 had a high percentage of students (48.4%) who are the first in their families to attend a post-secondary institution (Eastern Washington University, 2016b).

Participants. The participants consisted of a convenience sample of students enrolled in Education 201: Introduction to Education during Winter and Fall terms. The course is designed for lower-division undergraduates who are trying to ascertain if education is an appropriate vocation for them. Although the course is designed for the traditional undergraduate of 18 to 22 years of age, some non-traditional students who have returned to school also enroll in the course, seeking a change in occupation. In addition, a few post-baccalaureate students choose to enroll as part of a graduate teacher-preparation program. The total number of students ($N = 92$) was almost equally divided between those enrolled in the traditional face-to-face sections ($n = 48$) and those enrolled in the hybrid sections ($n = 44$). The face-to-face sections were taught by a tenure-track faculty member while the online sections were taught by one of the researchers, who is tenured. Both instructors followed substantially the same curriculum and used the identical text.

Instruments. The researchers designed two mixed-methodology surveys to measure the perceptions of students enrolled in the two types of Education 201 about the course. Both the face-to-face and hybrid versions of the survey comprised eight statements that students responded to using a 4-point Likert scale (4 = *strongly agree*; 3 = *agree*; 2 = *disagree*; 1 = *strongly disagree*). The eight statements were either identical or nearly so, with some small variation because of the differences in structure between the two configurations of the course. In addition, both survey versions contained two open-response items that addressed aspects of the course that students found helpful and changes they would like to see to improve the course. Finally, both versions of the survey contained five demographic items addressing gender affiliation, age, registration classification (grade level), the number of previous hybrid courses taken, and the number of previous online-only courses taken.

Findings

For the eight attitudinal statements that comprised the first part of the survey, the face-to-face participants during Winter responded with mean scores ranging from 3.08 to 3.80 with a mean average of 3.56, as shown in Table 1: Results of Eight Attitudinal Items for Both Face-to-Face and Hybrid Sections (Winter).

Table 1
Results of Eight Attitudinal Items for Both Face-to-Face and Hybrid Sections (Winter)

Configuration	Item	*n*	*M*	*SD*
Face-to-Face	1. I feel course materials such as assignments and related readings were readily available on Canvas.	26	3.08	0.74
Hybrid	1. I feel course materials such as assignments and related readings were readily available on Canvas.	25	3.96	0.20
Face-to-Face	2. I feel the instructor was readily available for consultation either through face-to-face	26	3.72	0.83

	office hours or email.			
Hybrid	2. I feel the instructor was readily available for consultation either through face-to-face office hours or email.	25	3.92	0.28
Face-to-Face	3. I feel the in-class discussion topics were worthwhile and contributed to a sense of community.	26	3.69	0.47
Hybrid	3. I feel the online discussion topics were worthwhile and contributed to a sense of community.	25	3.64	0.57
Face-to-Face	4. I feel the midterm exam was an effective way to gauge mastery of the course material.	26	3.50	0.49
Hybrid	4. I feel the online reading quizzes for the first half of the course were a better way to gauge mastery of the course material instead of a traditional midterm.	25	3.60	0.65
Face-to-Face	5. I feel I experienced a sense of community during the course.	26	3.73	0.53
Hybrid	5. I feel I experienced a sense of community during the course.	25	3.24	0.66
Face-to-Face	6. The amount of work was comparable to other courses I've taken.	26	3.35	0.94
Hybrid	6. The amount of work was comparable to other courses I've taken.	25	3.12	0.58
Face-to-Face	7. Overall, I was satisfied with the participation level of my classmates.	26	3.80	0.41
Hybrid	7. Overall, I was satisfied with the participation level of my classmates.	25	3.79	0.54
Face-to-Face	8. I feel this course offered in the face-to-face configuration was an overall valuable academic experience.	26	3.73	0.45
Hybrid	8. I feel this course offered in the hybrid configuration was an overall valuable academic experience.	25	3.79	0.51

Standard deviations for these scores ranged from 0.41 to 0.94. The hybrid participants during Winter responded with mean scores ranging from 3.12 to 3.96 with a mean average of 3.63. Standard deviations for these scores ranged from 0.20 to 0.66. The face-to-face participants during Fall responded with mean scores ranging from 3.41 to 3.91 with a mean average of 3.78 (see Appendix). Standard deviations for these scores ranged from 0.29 to 0.59. The hybrid participants during Fall responded with mean scores ranging from 3.42 to 3.89 with a mean average of 3.66. Standard deviations for these scores ranged from 0.32 to 0.77.

The second part of the survey consisted of two open-ended questions. The first of these asked participants to specify which aspects of the course they found helpful in mastering the course material. The second of these asked participants to specify which changes they would like to see to improve the course. Participants in both face-to-face sections emphasized the advantage of getting answers to their questions quickly in person while in class, both from the professor and

from classmates. Others mentioned the advantage of being able to observe specific instructional techniques in action while watching the professor during class. Some participants in these sections were adamant about the advantage—indeed the primacy—of this instructional configuration: "…teaching is generally a face-to-face experience." Other observations noted the comfort of familiarity in seeing the professor and their classmates twice a week, every week, during the term.

In contrast, participants in the hybrid sections of the course emphasized the flexibility of the course configuration. Because all course materials were posted on Canvas, the course management system used, students felt they could work ahead if they wanted to. Students also mentioned that the online discussions provided an avenue for participation for those who might not participate as much in traditional in-class discussions. Still other students mentioned the advantage of the dual nature of hybrid instruction: "We had class time so we could interact and connect with the teacher[,] but we also had a more flexible schedule." The second open-ended question generated several suggestions by participants for improving the course. Face-to-face participants noted the lag time between turning in assignments and having them returned with feedback. Several participants also suggested more interactive assignments and activities. In addition, hybrid participants suggested fewer online discussions and reading quizzes as well as quicker responses to emails about assignments. They also requested more time during face-to-face meetings to review the assigned reading from the course textbook.

The final part of the survey collected demographic data from the participants. The spread of demographic responses was more similar than dissimilar between the two sections of face-to-face participants; see Table 2: Responses to Demographic Items (Winter).

Table 2
Responses to Demographic Items (Winter)

Configuration	Item	Response Breakdown				
Face-to-Face	11. Gender affiliation	Male		Female		Non-Binary
		16		20		0
Hybrid	11. Gender affiliation	Male		Female		Non-Binary
		5		19		0
Face-to-Face	12. Age	<18	18-22	23-34	35-44	>44
		1	19	5	1	0
Hybrid	12. Age	<18	18-22	23-34	35-44	>44
		0	22	2	1	0
Face-to-Face	13. Registration classification	Fresh.	Soph.	Junior	Senior	Grad..
		2	12	10	1	1
Hybrid	13. Registration classification	Fresh.	Soph.	Junior	Senior	Grad.
		7	4	13	1	0
Face-to-Face	14. Number of hybrid courses taken previously	None	1-2	3-5		>5
		15	8	2		1
Hybrid	14. Number of hybrid courses taken previously	None	1-2	3-5		>5
		11	11	2		1
Face-to-Face	15. Number of online-only courses taken previously	None	1-2	3-5		>5
		13	7	2		2
Hybrid	15. Number of online-only courses taken previously	None	1-2	3.5		>5
		7	9	5		4

In both sections, female students outnumbered their male counterparts (Winter—female [76.9%]; Fall—female [61.9%]). Both face-to-face sections also had an overwhelming majority of traditional-aged (18-22) undergraduates (Winter—73.1%; Fall—86.4%). See Table 3: Responses to Demographic Items (Fall).

Table 3
Responses to Demographic Items (Fall)

Configuration	Item	Response Breakdown				
Face-to-Face	11. Gender affiliation	Male		Female		Non-Binary
		8		13		0
Hybrid	11. Gender affiliation	Male		Female		Non-Binary
		10		9		0
Face-to-Face	12. Age	<18	18-22	23-34	35-44	>44
		0	19	2	0	0
Hybrid	12. Age	<18	18-22	23-34	35-44	>44
		0	15	4	0	0
Face-to-Face	13. Registration classification	Fresh.	Soph.	Junior	Senior	Grad..
		2	7	11	1	0
Hybrid	13. Registration classification	Fresh.	Soph.	Junior	Senior	Grad.
		0	6	10	2	1
Face-to-Face	14. Number of hybrid courses taken previously	None	1-2	3-5	>5	
		7	9	1	3	
Hybrid	14. Number of hybrid courses taken previously	None	1-2	3-5	>5	
		6	8	5	0	
Face-to-Face	15. Number of online-only courses taken previously	None	1-2	3-5	>5	
		6	11	0	4	
Hybrid	15. Number of online-only courses taken previously	None	1-2	3.5	>5	
		5	10	3	1	

A majority of students in both sections were also either sophomores or juniors, Winter (84.6%) and Fall (81.8%). The demographic responses for the two sections of hybrid participants were a bit more disparate concerning gender. In the Winter section, females (76.0%) outnumbered males, while in the Fall section, males (52.6%) barely outnumbered females. Traditional-aged (18-22) undergraduates comprised the majority of participants in both sections (Winter—88.0%; Fall—78.9%). Similarly, both sections were overwhelmingly either sophomores or juniors, Winter (68.0%) and Fall (84.2%).

Discussion

We had designed this study to determine if students preferred taking the EDUC 201 course in face-to-face or hybrid configurations. The results of our quantitative data were disappointing in that there was no clear preference. The overall mean of the attitudinal statements for face-to-face students was 3.68 of a possible 4.0 on the Likert scale. The overall mean of the attitudinal statements for hybrid students was 3.65 of a possible 4.0, a difference of 0.03; even if this were statistically significant, the impact of face-to-face versus hybrid would be quite small.

Perhaps the similarity of scores is due to the likeness of demographic data, as students from both face-to-face and hybrid sections of the course were overwhelmingly traditional

undergraduates (aged 18-22) who were primarily sophomores and juniors. Further, students were not randomly assigned face-to-face or hybrid course formats, it is possible that the most important factor regarding course format for student satisfaction is that students are making the choice that fits their personal and educational needs. The results from this study should be understood within the contextual limitations of the observational nature of this project, compared to experimental designs and those using random assignment to face-to-face or hybrid courses.

We view the results of this study as initial and preliminary, a first foray into determining student preferences for instructional configurations of EDUC 201. Consequently, we recommend further research on this topic that includes a larger sampling of students spread over a longer period longitudinally

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Appendix

Results of Eight Attitudinal Items for Both Face-to-Face and Hybrid Sections (Fall)

Configuration	Item	*n*	*M*	*SD*
Face-to-Face	1. I feel course materials such as assignments and related readings were readily available on Canvas.	22	3.82	0.57
Hybrid	1. I feel course materials such as assignments and related readings were readily available on Canvas.	19	3.89	0.32
Face-to-Face	2. I feel the instructor was readily available for consultation either through face-to-face office hours or email.	22	3.86	0.36
Hybrid	2. I feel the instructor was readily available for consultation either through face-to-face office hours or email.	19	3.84	0.37
Face-to-Face	3. I feel the in-class discussion topics were worthwhile and contributed to a sense of community.	22	3.91	0.29
Hybrid	3. I feel the online discussion topics were worthwhile and contributed to a sense of community.	19	3.68	0.58
Face-to-Face	4. I feel the midterm exam was an effective way	22	3.77	0.43

	to gauge mastery of the course material.			
Hybrid	4. I feel the online reading quizzes for the first half of the course were a better way to gauge mastery of the course material instead of a traditional midterm.	19	3.74	0.56
Face-to-Face	5. I feel I experienced a sense of community during the course.	22	3.91	0.29
Hybrid	5. I feel I experienced a sense of community during the course.	19	3.53	0.70
Face-to-Face	6. The amount of work was comparable to other courses I've taken.	22	3.41	0.59
Hybrid	6. The amount of work was comparable to other courses I've taken.	19	3.42	0.69
Face-to-Face	7. Overall, I was satisfied with the participation level of my classmates.	22	3.73	0.46
Hybrid	7. Overall, I was satisfied with the participation level of my classmates.	19	3.53	0.77
Face-to-Face	8. I feel this course offered in the face-to-face configuration was an overall valuable academic experience.	22	3.86	0.35
Hybrid	8. I feel this course offered in the hybrid configuration was an overall valuable academic experience.	19	3.68	0.58