

Students' perspectives on online and face-to-face components of a blended course design in Health and Kinesiology at a South Western Public University in the USA

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Abstract

Introduction: The current higher education environment in the United States of America (USA) and worldwide is focused on providing people an opportunity to access a quality education at a competitive price and one that is flexible enough to meet the needs of a diverse student demographic. It is therefore necessary for course delivery methods to accommodate these diverse needs without sacrificing rigor necessary for accreditation due to the diverse backgrounds, occupations, and time constraints of students in today's environment

Purpose: The purpose of this study was to establish the students' perception of the online and face-to-face components of a blended course design at a South Western Public University in the USA.

Methods and material: The sample of this study consisted of 200 students drawn from four different blended courses in the Department of Health and Kinesiology at a medium sized public university in South West of USA. A modified questionnaire from Sitter et al., (2009) with 19 questions was used to collect responses from students. The survey instrument employed a 5-point Likert scale ranging from strongly agree (5), to strongly disagree (1).

Results: Majority of the students have a positive view of the blended learning including the online and face-to-face components. A consistent minority of the students expressed disagreement especially pertaining to technology-based communication, preferred mode of delivery, online discussion participation and grade scores.

Discussion: Although the majority of students perceived blended learning and its components positively, there is need for instructors to address the communication, technology, and online learning facilitation challenges if all learners are to learn effectively.

Conclusions and recommendations: It is clear that the majority of students are ready and have accepted blended learning course designs at this medium sized public university in south west of

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the United States of America and therefore there is room for expansion of the initiative to benefit more students.

Keywords: Blended learning, Hybrid instruction, Traditional face-to-face instruction, Course design, Higher education, Black Board

Introduction

The current higher education environment in the USA and worldwide is focused on providing people an opportunity to access a quality education at a competitive price and one that is flexible enough to meet the needs of a diverse student demographic (Lloyd-Smith, 2010). According to Sitter, et al. (2009), it is necessary for course delivery methods to accommodate these diverse needs without sacrificing rigor necessary for accreditation due to the diverse backgrounds, occupations, and time constraints of students in today's environment. According to these authors, traditionally, course design utilized face-to-face instruction, which allows for a great deal of interaction between the student and the instructor, but this method requires a significant commitment of time to in-class presence.

However, due to technological advancement and the onset of the World Wide Web, the internet has become a popular medium for providing online courses and degree programs (Britt, 2015; Bryan, 2014; El Mansour and Mupinga, 2007; Lloyd-Smith, 2010). Indeed the online education growth has been phenomenal for several years as 62.4% of colleges offered online degree programs at the end of 2012 which is up significantly from 32.5% in 2002 (Sheehy, 2013). One of the disadvantages of offering courses online fully is the elimination of the face-to-face interaction that has characterized effective teacher and learner interaction. In some other cases, institutions are facing capital challenges in establishing new classrooms as well as maximizing the utilization of existing infrastructure (Lloyd-Smith, 2010). Thus there is need for a compromise between a fully online program and one that is fully face-to-face. There has, therefore, emerged a mixture which captures the advantages offered by both delivery methods. Some schools are now creating courses using a hybrid or blended design (Delialioglu and Yildirim, 2007; Garnham & Kaleta, 2002; Lloyd-Smith, 2010; Sitter et al., 2009).

Colis and Moonen (2001) define hybrid or blended learning as a mixture of traditional face-to-face and online activities. In this model, instruction occurs in both the classroom and online (Delialioglu and Yildirim, 2007; Garnham & Kaleta, 2002; Lloyd-Smith, 2010; Sitter et al., 2009). Allen, Seaman and Garrett (2007), cite the Sloan Consortium, which provided a more flexible ratio for content delivered online and proposed that blended courses are those in which 30 to 79 percent of the content is delivered in an online format, while the remaining course content delivered in the more traditional classroom setting. Blended courses, therefore, offer the convenience and flexibility of wholly online courses without the loss of faculty and student interaction (Delialioglu and Yildirim, 2007; Sitter et al., 2009). Research that focuses on faculty and student perceptions report that this course design is considered the "best of both worlds" (Dziuban, Hartman, & Moskal, 2005; Garnham & Kaleta, 2002; Hartman, Moskal & Dziuban, 2005; Sitter et al., 2009).

According to Delialioglu and Yildirim (2007), "blended learning environments aim to combine attributes of online instruction, such as efficiency, sufficiency, and freedom to access information anytime with minimal effort, with attributes of traditional classroom instruction, such as enabling students to work with the new information presented, as well as interact with peers and the teacher in the classroom" (p. 133). In the current study, the terms blended learning and hybrid instruction are used interchangeably to refer to the integration of the social aspect of face-to-face environment with the information-access methods of a web-based environment. Although the practice of blended learning and hybrid instruction differ from one institution to the other, the idea

behind both is to redesign the instruction to maximize the advantages of both face-to-face and online modes of instruction (Delialioglu and Yildirim, 2007).

Designing of effective blended courses requires balancing between online and face-to-face course components, the need for clearly defined course requirements, the need to design elements that engage the desired depth of critical thinking and learning, and the determination of which assignments are best executed face-to-face and which can be executed online (Britt, 2015; Garnham & Kaleta, 2002; Sitter et al., 2009). According to Hensley (2005), faculty must determine which of their course goals and hybrid course design objectives can be accomplished online, design online assignments to meet these goals and objectives, and ensure integration between the online and face-to-face components of the course. Additionally, to take care of the student and faculty interaction, which is essential to effective learning, there has to be deliberate integration of course activities that enhance student-to-student and student-to-faculty interaction (Delialioglu and Yildirim, 2007). Student and faculty interaction is one of the key components of student engagement, retention and learning.

To effectively achieve high quality outcomes of learning, the instructor has to manage student assignments, provide relevant and timely feedback, and concerns, and assess student learning against course outcomes (Tallent-Runnels et al., 2006). Therefore the design should incorporate effective mechanisms to assess learning outcomes. Shachar (2008) and Shachar & Neumann (2003) suggest that performance in online and hybrid courses was not significantly different from that achieved in traditional face-to-face settings. On the other hand, Llyod-Smith (2010) cites a recent meta-analysis released by the Department of Education which found that students who took all or part of their instruction online performed better, on average, than did those taking the same course through face-to-face instruction. Jaschik (2009) also asserted that those who took blended courses—those that combine elements of online learning and face-to-face instruction—appeared to do best of all. This lends credence to the expansion of blended delivery courses. This also suggests that there is need to purposely integrate assessment of learning outcomes in the blended learning model. This calls for collaboration between the instructors, course designers and the students (Dixon, 2010).

Given that the blended learning model has been around only for a short time, there is need to find out what the students perceive to be the strong points, the weaknesses compared to the online and traditional face to face modalities. Delialioglu and Yildirim (2007) asserted that “the literature does not provide much evidence on whether or not this type of instruction is more effective than purely traditional face-to-face courses or purely online courses” (p. 134). There is therefore a need for more research on the blended learning course design as it appears that some researchers show that students and faculty perceive that there is value in the hybrid course design. Previous research findings indicate that hybrid designed courses allow for engagement and collaboration between students and faculty (Rovai, 2002; Rovai and Hope, 2004), while also placing learning ownership and success in the hands of the learner (Bonk, Kyong-Jee & Zeng, 2006; Lynch & Dembo, 2004). These aspects of student engagement, while interacting with faculty, make the blended model quite attractive and favorable (Sitter et al., 2009).

Purpose of the study

The purpose of this study was to establish the students' perception of the online and face-to-face components of a blended course design at a medium sized south western public university. This is because, the blended model has been in operation in this institution since the fall of 2013. It was therefore pertinent to find out whether students have a positive impression about this relatively new approach compared to the traditional method of face-to-face and the other one of fully online learning.

Methods and materials

The sample of this study consisted of 200 students drawn from four different blended courses in the Department of Health and Kinesiology at a medium sized public university in south west of USA. The 200 students were invited to participate in this study as part of a strategy to improve their learning process given the novel nature of blended learning in the Department. The researcher explained the purpose of the study before distributing the questionnaire. Those participating were assured of their confidentiality as no names were to be used. The anonymous nature of the responses was a confidence booster as all students present in the respective classes were able to fill and return the questionnaires. Consistent with University of Texas at Tyler's Human Subjects protocol, respondents were informed of the voluntary nature of their participation. The questionnaire contained 19 questions adapted from Sitter et al. (2009) addressing perceptions on various components of blended learning course design as well as their overall impression compared to the online and the traditional face-to-face learning approaches. The survey instrument employed a 5-point Likert scale ranging from strongly agree (5), to strongly disagree (1). These were later collapsed into a 3- point Likert scale including agreement (strongly agree and agree), no opinion or neutral (neither disagree nor agree) and disagreement (strongly disagree and disagree). To ensure clarity in the survey instrument, researchers used the following definitions to describe course design and delivery.

- Traditional course – A course where little or no online technology is used. Content is delivered in a face-to-face classroom setting.
- Blended learning or Hybrid course – A course that blends on line and face-to-face delivery. A substantial proportion of the content is delivered online, typically uses online discussions, and typically has a reduced number of face-to-face meetings.
- Online course – A course where most or all of the content is delivered online. These courses typically have no face-to-face meetings.

Results

There were 200 students who responded to the questionnaire. The summary of their responses is presented in table one.

Table 1: Summary of the students' perception of online, face-to-face and blended learning (Modified Sitter et al., 2009 Questionnaire)

Statement	Agreement		No opinion		Disagreement	
	Number	Percent	Number	Percent	Number	Percent
ONLINE COMPONENT						
1. Online learning allows for the presentation of course content in a logical, sequential manner in ways that facilitate learning	173	86.5	20	10	7	3.5
2. Online content (including reading, research, review, learning new concepts, and assessment) is as demanding as content delivered in traditional face-to-face courses	165	82.5	17	8.5	18	9
3. Technology (Blackboard) used for assignment completion (i.e., discussion boards, journals, quizzes and exams) is easy to use and understand	182	91	13	6.5	5	2.5
4. As a whole, course assignments or assessments support the objectives of the academic program	187	93.5	12	6	1	1
FACE-2-FACE COMPONENT						
5. In class, face- to- face, activities were a valuable component in mastering course content	178	89	17	8.5	5	2.5
6. Technology based communication is as effective as face-to-face communication for responding to questions	131	65.5	39	19.5	30	15
BLENDED LEARNING						
7. The amount of communication and interaction between student and faculty in a blended/hybrid course	175	87.5	18	9	7	3.5

Njororai Simiyu, W. W., Njororai, F. J., & Chanumolu, T. (2016). Students' perspectives on online and face-to-face components of a blended course design in Health and Kinesiology at a South Western Public University in the USA. *International Journal of Human Sciences*, 13(1), 125-138. doi: [10.14687/ijhs.v13i1.3474](https://doi.org/10.14687/ijhs.v13i1.3474)

was sufficient for effective learning						
8. Quality of instructor response in a blended/hybrid course is appropriate to facilitate learning	185	92.5	14	7	1	0.5
9. Required assignments in a blended/hybrid course encourage critical thinking	176	88	20	10	4	2
10. Required assignments in a blended/hybrid course encourage the application of knowledge and skills learned in class to current discipline-related issues	174	87	20	10	6	3
11. The feedback from instructor on graded assignments in a blended/hybrid course enhances learning	176	88	22	11	2	1
12. Instructors in a blended/hybrid course clearly communicated the requirements for the successful completion of assignments	177	88.5	20	10	3	1.5
13. Instructor response time to student questions in a blended/hybrid course was appropriate to allow students to complete required assignments in a timely manner	180	90	20	10	Nil	Nil
14. Participation in / facilitation of online discussions in a blended/hybrid course is easier than in a traditional face-to-face class setting	134	67	35	17.5	31	15.5
15. I believe that using a blended/hybrid course design is more effective than traditional teaching methods	157	78.5	35	17.5	8	4
16. I prefer blended/hybrid courses to traditional face-to-face courses	124	62	41	20.5	35	17.5
17. I believe that students can make the same grade in a blended/hybrid course as in a traditional face-to-face course	139	69.5	34	17	27	13.5
18. I believe that students can learn the same amount in a blended/hybrid course as in a traditional face-to-face course	147	73.5	41	20.5	12	6
19. Hybrid/blended courses meet the need for flexible access to educational opportunities	153	76.5	37	18.5	10	5

Online Component

Table 1 shows that 173 (86%) students agreed (49 strongly agreed and 124 agreed) that online learning allows for presentation of course content in logical, sequential manner in ways that facilitate learning. But 20 (10%) students remained neutral, while 7 (4%) disagreed. Additionally, 164 (82%) students agreed (60 students strongly agreed and 104 agreed) that online content is as demanding as content delivered in traditional face-to-face courses, while 17 (9%) were neutral and 18 (9%) disagreed. Regarding ease of understanding and use of the technology (Blackboard) for assignment completion (i.e., discussion boards, journals, quizzes and exams), the results showed that 182 (90%) students agreed (95 responded strongly agreed and 87 agreed) that technology (blackboard) used for assignment completion was easy to understand and use. However, 13 (7%) students had no opinion, while 5 (3%) students disagreed. Apparently, a few students were technologically challenged. As a whole, 187 (93%) students (76 strongly agreed and 111 agreed) agreed that course assignments or assessments supported the objectives of the academic program. Nevertheless, 12 (6%) students were neutral and only 1 (1%) students did not agree that course assignments or assessments supported the objectives of the academic program.

Traditional face-to-face component

Results pertaining to in class, face-to-face, activities being a valuable component in mastering course content revealed that 178 (89%) students (74 strongly agreed and 104 agreed) were positive, while 17 (9%) students were neutral and 5 (2%) did not think that face-to-face activities were a valuable component in mastering course content. Regarding technology-based

communication being as effective as face-to-face communication for responding to questions, 131 (65%) students positively responded (53 strongly agreed and 76 agreed), while 39 (20%) were neutral and 30 (15%) students did not agree that technology-based communication was as effective as face-to-face for responding to students questions. A sizeable percentage (35%) of students seemed to have reservations about technology-based communications.

Blended/Hybrid Course Design

Regarding the amount of communication and interaction between student and faculty in a blended/hybrid course being sufficient for effective learning, 175 (87%) students (60 strongly agreed and 115 agreed) responded positively, while 18 (9%) were neutral and 7 (4%) students thought that interaction between students' and faculty in hybrid does not lead to effective learning. Table 1 also shows that 185 (92%) students (89 students strongly agreed and 96 agreed) replied in the affirmative, while 14 (7%) neither agreed nor disagreed to the statement and 1 (1%) student disagreed. On promotion of critical thinking, 176 (88%) students (64 strongly agreed and 112 agreed) thought that assignments in a hybrid course help in critical thinking, while 20 (10%) had no opinion and 4 (2%) disagreed. 174 (87%) students (62 strongly agreed and 112 agreed) either strongly agreed or agreed, while 20 (10%) were neutral and 6 disagreed (3%) regarding assignments in hybrid course encouraging application of knowledge and skills learned in class to current Health and Kinesiology issues. From table 1, 176 (88%) students, (84 strongly agreed and 92 agreed) were positive that feedback given by an instructor in hybrid course enhances learning, while 22 (11%) were neutral and 2 (1%) disagreed. 177 (88%) students agreed (70 students strongly agreed and 107 agreed) that instructors clearly communicated with students the requirements needed to complete the assignment effectively in blended/hybrid courses. But 20 (10%) students were neutral and 3 (2%) did not find the instructor communication effective or useful in the completion of assignments in a blended/hybrid course.

Table 1 shows that 180 (90%) students agreed (76 strongly agreed and 104 agreed) that instructor response time to student questions in hybrid course was appropriate to allow students to complete required assignments in timely manner. But 20 (10%) students were neutral. Regarding participation in and facilitation of online discussions in a blended/hybrid course being easier than in a traditional face-to-face class setting, the responses are shown in figure 1.

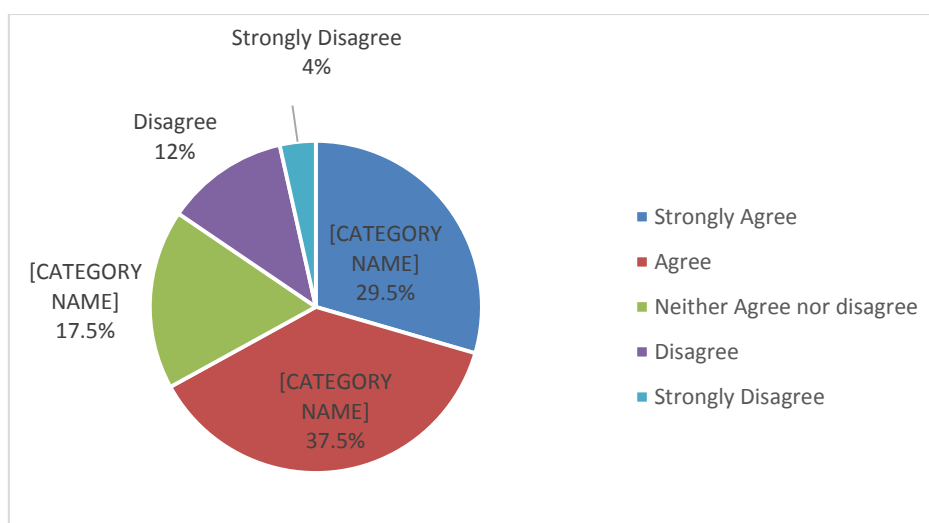


Figure 1: Responses regarding participation in and facilitation of online discussions compared to face-to-face

Figure 1 shows that 134 (67%) students agreed (59 strongly agreed and 75 agreed) that participation in online discussions in hybrid course is easier than in a traditional face-to-face class. But 35 (17.5%) students were not sure and 31 (15.5%) disagreed. It appears that 33% of the students could not choose blended learning over face-to-face in terms of carrying out discussion tasks.

Figure 2 shows the responses pertaining to the statement: "I believe that using a blended/hybrid course design is more effective than traditional face-to-face methods".

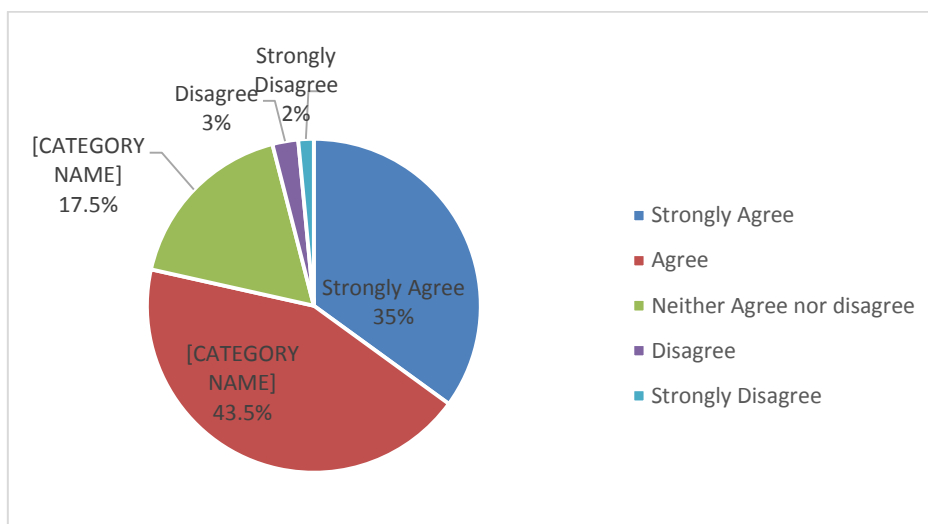


Figure 2: Responses to blended/hybrid course design being more effective than traditional face-to-face methods

Figure 2 shows that 157 (78.5%) students agreed (70 strongly agreed and 87 agreed) that hybrid course method is more effective than traditional face-to-face teaching method. But 35 (17.5%) students had no opinion while 8 (5%) students disagreed. The majority of the respondents were therefore positive that blended learning was more effective than face-to-face instructional methods. This position is further affirmed by the level of preference by students between blended and face-to-face. When it came to the preference of blended/hybrid courses to traditional face-to-face courses, figure 3 shows the breakdown of responses;

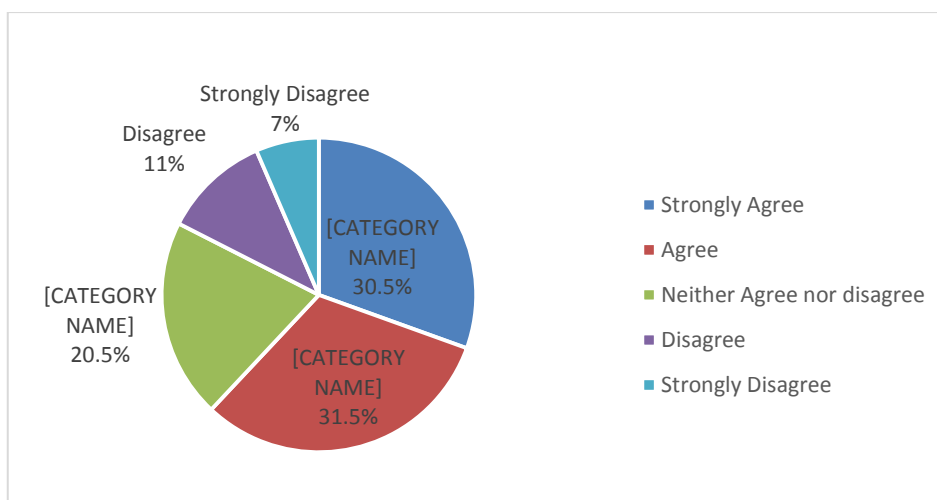


Figure 3: Preference of blended/hybrid course over the traditional face-to-face course

Although 124 (62%) students preferred (61 strongly agreed and 63 agreed) the hybrid course over the traditional face-to-face course design, there were 41 (20.5%) students who remained neutral and 35 (17.5%) who disagreed as shown in Figure 3.

On the statement that "I believe that students can make the same grade in a hybrid course as in a traditional face-to-face course", the results are shown in figure 4.

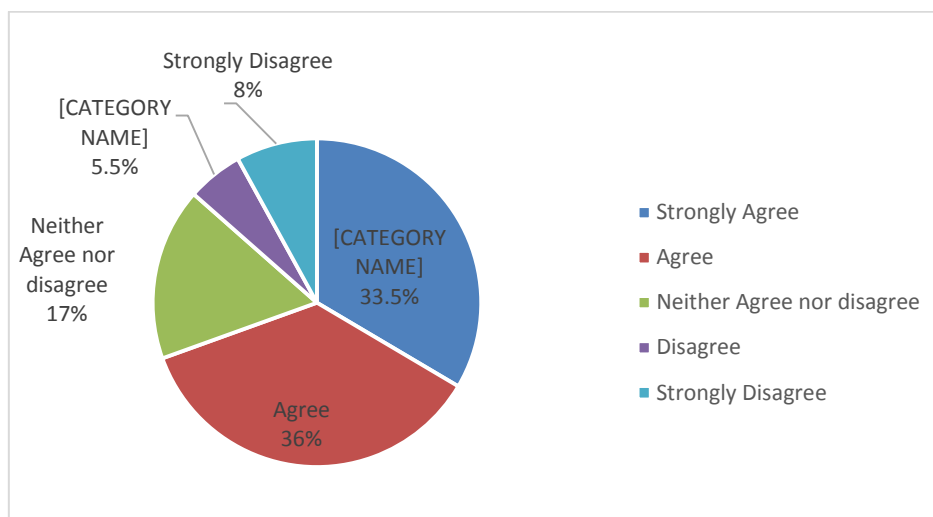


Figure 4: Responses on grades earned in a hybrid course compared to a traditional face-to-face course

Figure 4 shows that 139 (69.5%) students agreed (67 strongly agreed and 72 agreed) that students can make the same grade in hybrid course as in a traditional course. But 34 (17%) students were neutral, while 27 (13.5%) disagreed. Regarding the statement "students can learn the same amount in a blended/hybrid course as in a traditional face-to-face course", the responses are in figure 5.

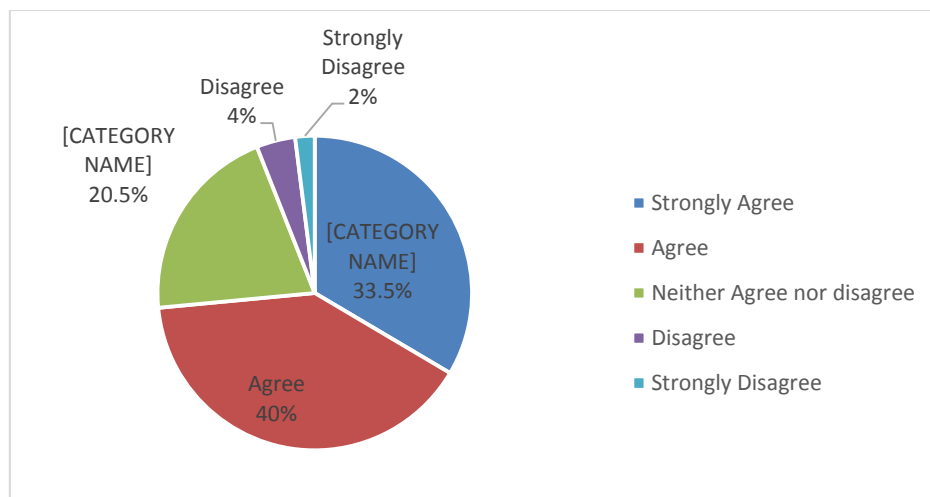


Figure 5: Students can learn the same amount in a blended/hybrid course as in a traditional face-to-face course

Figure 5 shows that 147 (73.5%) students agreed (67 strongly agreed and 80 agreed) that they learn the same amount in hybrid as in a traditional face-to-face course but 41 (20.5%) were neutral. 12 (6%) students disagreed implying blended learning did not yield the same amount of learning as in a face-to-face course.

As to whether Hybrid/blended courses met the need for flexible access to educational opportunities, students' responses were as shown in figure 6.

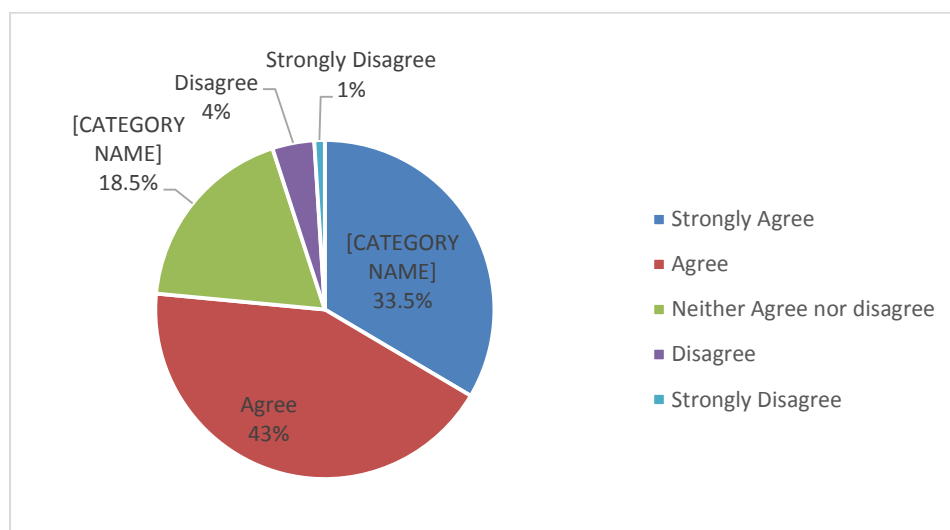


Figure 6: Flexibility of access to educational opportunities

Figure 6 shows that 153 (76.5%) students agreed (67 strongly agreed and 86 agreed) that a hybrid course met the need for flexible access to educational opportunities but 37 (18.5%) were neutral and 10 (5%) disagreed. Whereas the majority felt blended classes offered flexibility, a minority of the students did not feel the same way.

Discussion

The present study explored the perception of students regarding the online, face-to-face and blended versions of course design. Regarding the online component of the course, majority of the respondents agreed that it allows for the presentation of course content in a logical, sequential manner in ways that facilitate learning. But some small percentage of students disagreed, with 14% staying neutral. It is apparent that instructors should make it possible for every student to access the resources available in the online course by purposely taking students through the different components of the course (El Mansour and Mupinga, 2007). Otherwise, the students responded positively that the content delivered in online course is as demanding as the face-to-face delivered courses. Some small group of students thought that online course delivery is not much effective when compared with face-to-face delivery. The Blackboard Learning System, which is the platform of delivery at this public university, is a virtual learning environment and course management system developed by Blackboard Inc.

Through Blackboard, lessons can be delivered wholly online or partially to supplement the face-to-face delivered classes. Through this platform, one can add online elements to courses traditionally delivered face-to-face and to develop completely online courses with few or no face-to-face meetings. Students seemed to be fully satisfied with the blackboard learning management system where services like assignments, grade access, and lectures are accessed online. Majority of students felt blackboard was easy to understand and use. Black board is built on the basis that students who do not know how to operate internet options can utilize it because it is user friendly. But some students (9%) thought that usage of blackboard for the purpose of assignment submission was difficult and not easy to use.

Instructors should therefore be cognizant of the fact that some of the learners may have questionable technical skills and some may experience computer-related phobia (Saade and Kira, 2009; Lloyd-Smith, 2010). According to Saade and Kira (2009), unpleasant side effects associated

with technology may include strong, negative emotional states that arise not only during the interaction but even before, when the idea of having to interact with the computer begins. According to these authors, frustration, confusion, anger, anxiety and similar emotional states which may be associated with the interaction can adversely affect productivity, learning, social relationships and overall well-being. It is, therefore, imperative that learners, who have technical difficulties with the requisite technology, have access to the support services necessary to successfully engage in the online portion of blended course delivery. However, for majority of students, the technology is easy to understand and use in accessing and doing the various assignments.

Regarding the students' perception of the face-to-face component or the traditional method of course delivery, the majority of the students who responded to the study were positive that it is invaluable in communicating with students as well as explaining the technology in use. The traditional face-to-face learning component under the guidance of an instructor has a long-established history and acceptance as the model for teaching and learning. The one benefit regarding traditional learning is that students can clear their doubts with the faculty directly and can have good familiarity and interaction with the faculty.

Students also agreed that face-to-face activities were a valuable component in mastering course content. Students felt it offers them freedom to interact with the faculty and also with the other students regarding assignments. The students' preference for face-to-face interaction during classroom meetings points towards the social aspect of learning. According to the social learning theory (Bandura, 1975), learning which emphasizes modeling of behaviors, attitudes, and emotional reactions while doing purposive, goal-directed activities in an interactive group is effective. Students' behaviors, attitudes, and emotions tend to affect others while working in groups, discussing a concept, or playing educational games within a classroom setting offered by the face-to-face approach to instruction (Delialioğlu and Yildirim, 2007). Vygotsky (1978) also argued that social interaction is fundamental in cognitive development. Therefore, a face-to-face course design offers opportunities for collaborative classroom activities in the blended learning environment ideal for the social interaction of students (Delialioğlu and Yildirim, 2007) thereby enhancing their learning experiences.

Despite the majority of students vouching for face-to-face, a minority of them (11%) were either neutral or disagreed. There was also mixed responses to the issue of technology-based communication and whether it was as effective as face-to-face communication for responding to questions. More than half (65.5%) of the students agreed that the technology in blended learning was as effective as in the face-to-face communication for responding to questions. However, 34.5% of the respondents were either neutral or disagreed that technology-based communication was as effective as the face-to-face one. This points to the need for instructors to use a variety of channels to reach the students via technology and face-to-face and even office appointments. Faculty need to be aware that not all students have the same degree of technological expertise and ensure that support services are in place to assist those who are novice e-learners. Support may be required for many facets of online tasks such as posting discussion threads, uploading course materials, taking quizzes, accessing the grade book, blogging and working together in virtual groups. Instructors should begin a blended course with an orientation for all class participants. Specifically, the instructor should start by outlining and modeling the technology that will be utilized thereby decreasing the anxiety that may occur for novice online learners. This delivery mode provides a unique opportunity to introduce students to online instruction methods while still maintaining a traditional classroom presence (Lloyd-Smith, 2010).

Blended learning is a course design model that presents the components of hybrid learning in a flexible course structure that provides for online as well as face-to-face classroom meetings. Models like blended learning, which present multiple paths through course content, may work well for courses where students arrive with varying levels of expertise or background in the subject matter.

Our study shows that students were positive that the amount of communication and interaction between student and faculty in a blended course was sufficient for effective learning. Because in blended model, students can interact with faculty directly face-to-face and also clear their doubts through online.

In blended learning, it's the responsibility of the instructor to facilitate a student to learn especially with regard to accessing resources available online. There were mixed responses pertaining to whether participation in and facilitation of discussions were comparable between a blended and traditional face-to-face course. The results showed that 67% of the students felt the two were comparable, but 33% of students were either neutral or disagreed. This reveals that some students are definitely challenged when it comes to full participation in online discussions. However, blended learning is best placed to meet the diverse learning needs of the students. It has been observed that some people are able to find their voice in distance media in a way that they cannot in a typical classroom (Lloyd-Smith, 2010). For example, a shy student, who rarely speaks in a classroom environment may communicate better in online forums where students have more time to think before they are required to comment (Young, 2002). The online forums also tend to be less intimidating and therefore ideal for student participation, specifically accommodating students who tend to be less verbal (Gould, 2003).

One of the critical components of teaching and learning is the assessment component via assignments and examinations. It is important that students are evaluated to establish that learning has taken place. It is therefore important for the instructor to effectively communicate with students with regard to any assignments. Through assignments, students are also able to evaluate their own learning. It was apparent that the majority of students felt that required assignments in the blended course encouraged the application of knowledge and skills to the field of Health and Kinesiology. According to Britt (2015), the online component should be engaging by relating students' experiences in the real world. According to the author, learning should have authentic activities that match the real-world tasks of professionals in practice as nearly as possible. Learning rises to the level of authenticity when it asks students to work actively with abstract concepts, facts, and formulae inside a realistic—and highly social—context mimicking “the ordinary practices of the [disciplinary] culture.” (401).

The majority (88%) of the respondents felt the feedback on graded assignments enhanced their learning. Students were satisfied with the communication pertaining to course expectations and completion requirements. Communication is, therefore, a critical aspect for the success of the blended learning. The strength of blended learning lies in the multiple channels of communication with the students either via technology or face-to-face in class and the personal inquiries at the individual level via email or office appointments. Indeed the majority of students felt that the instructor response time to student questions in a blended/hybrid course was appropriate to allow students to complete required assignments in a timely manner.

A key question was whether a blended course was more effective than traditional face-to-face teaching methods. The majority of students agreed that a blended course design was more effective than traditional learning. However, 21.5% of the students were either neutral or disagreed. Regarding preference for blended over face-to-face, 124 (62%) students agreed, while 41 (20.5%) students were neutral and 35 (17.5%) disagreed. It is apparent that whereas the majority of students are very comfortable with blended learning, there is a sizeable minority that struggle in embracing the new mode of course delivery and they would rather stick to the traditional face-to-face instruction. It is clear that students who are motivated and focused perceive the blended course as being an effective alternative to the face-to-face approach as the quality of learning is the same or even better. Maki and Maki (2007) found that online students can and often do outperform traditional students since they are required to do more in online courses than in traditional courses. They also concluded that, to be effective, online instruction required strong methodology and opportunities for students to interact with each other and the instructor. Garnham & Kaleta (2002)

also report that students learn more in blended courses than they do in comparable traditional class sections. They further indicate that teachers responsible for the blended sections reported that students wrote better papers, performed better on exams, produced higher quality projects, and were capable of more meaningful discussions on course material.

Some students are more focused on the grade than the actual learning. It is, therefore, important to know their perception regarding grading in the blended approach compared to the face-to-face model. Thus regarding whether a student can make the same grade in a blended class just as a face-to-face class, 69.5% of students agreed. However, 30.5% of the students were either neutral or disagreed. This speaks to the fact that some students may not be comfortable with the online assessments due to technological-related fears. There could also be a number of students who are put off by anything online due to difficulty in accessing internet on a secure computer. This is because, a number of students struggle even to buy course textbooks and hence could find access to internet limited thereby compromising their chances of excelling in online assessments.

One advantage of blended learning is the flexibility it offers to students and the minimization of costs of the commute to campus for face-to-face sessions. Indeed 76.5% of students agreed that a blended course provided flexible access to educational opportunities. Given the choice between blended and face-to-face learning, the majority (62%) of students would prefer a blended class, 20.5% were not sure and 17.5% disagreed. This implies that close to 38% of the students are uncomfortable in blended courses and they would rather have face-to-face courses instead. However, the majority of the respondents would prefer blended learning due to, among many things, the flexibility it offers (Garnham and Kaleta, 2002; Gould, 2003; Hijazi et al., 2006; Lloyd-Smith, 2010; Stewart, 2008). Some of the key flexibility advantages for blended learning include accessibility, pedagogical effectiveness, course interaction and need for the modern student to balance family, jobs and university life. Indeed coming to campus is often difficult for many students and, therefore, reducing the number of required face-to-face hours can help them manage better (Dziuban, Moskal and Hartman, 2005).

Conclusions and recommendations

It is clear that the majority of students are ready and have accepted blended learning course designs at this medium sized public university in south west of the United States of America. Based on the results, we can conclude that the majority of students have adjusted well to the demands of blended course designs including both the online and reduced face-to-face components. However, instructors have to ensure that they present the learning material in a systematic manner to avoid any confusion on the part of the student. One challenge that the instructor has to contend with is that of communication. It is not enough to use technology-based communication. One should be prepared to use both the online/electronic communications with the face-to-face announcements. The other key issue worth of emphasis is the apparent technical limitation that could be a constraining factor for a number of students. This calls for empathy on the part of the instructor to guide students on accessing some of the campus based options for internet access and tutorials to sharpen their technical skill levels. Although Black Board Learning Management System requires minimal competence in technology use, it is imperative that each student enrolled in the class is put on a sound footing to succeed. This includes providing and emphasizing the support services for student success available on campus.

The third issue which is apparent is the consistent number of students that do not embrace the pedagogical changes driven by technological innovations of course delivery. It is important that the instructor listens to and educates this cadre of students about the changing technologies and how they are driving society. It is, therefore, strategic to present blended learning as a way of enabling students to also enhance their technological skills that are very much in demand in the work place. Presenting technology use as a learning outcome needed in their career success would

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challenge the students to step out of their comfort zone to embrace it rather than just taking for granted that the current generation gets it without anybody showing them the way.

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