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TRANSFORMING A FIRST-YEAR ACCOUNTING COURSE USING A BLENDED LEARNING PATHWAY

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ABSTRACT

Aim/Purpose	Blended learning can transform students experience and learning in higher education. Although the literature extensively explores benefits of blended learning, limited research exists to provide a detailed design principle for implementing instructional activities in blended courses and its usage as tool to influence learning outcomes for second language first year accounting learners.
Background	The objective of this study is to find out how the learning experience of students was impacted and by designing and implementing blended learning and connectivity between online and face-to-face learning. This paper reviews the challenges and benefits of blended learning and highlights teachers' and students' perceptions on the impact of the connectivity of online and face-to-face activities on students' learning.
Methodology	Data was collected from students enrolled in the course using an open-ended questionnaire. There were 220 respondents, representing a response rate of 65%. Data was extracted from the online learning data and grade center. Teachers' experiences and observations were also noted. The survey results were analyzed using content analysis.
Contribution	Research focusing on blended learning design and implementation is limited, and there is no one size fits all when it comes to blended learning. Consequently, this paper contributes to the discussion by highlighting how second language, first-year accounting students benefit from blended learning and the connectivity between online and face-to-face activities. Increased flexibility for learners

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	appears to be one of the most cited rationale for the combination of traditional with online instructional methods, however, this study evaluates blended learning as a tool for transforming the learning experience of second language, first year accounting students.
Findings	Findings show that students benefit from blended learning, and connectivity between online and in-class activities allows students to exploit the advantages of both online and face-to-face learning. Students can see the relevance of what they are doing online and how that contributes to their in-class activities and, hence, are motivated to complete the activities.
Recommendations for Practitioners	Educators should use a well-designed blended learning pathway to empower students to be in charge of their learning. Placing materials online creates more and better opportunities for engaging students in class. Institutional support is important when implementing blended learning.
Recommendations for Researchers	There is a need for more studies on blended learning design and implementation. Future researchers may carry out more studies on how blended learning design affects student engagement and learning for second language learners in other courses.
Impact on Society	A blended learning pathway would greatly benefit second language learners to learn better and empower them to be more independent as a self-directed learner who is able to utilize their time wisely. Community of practice is an excellent platform to encourage teaching teams to work together and create innovative teaching and assessment materials.
Future Research	Future studies may carry out the study using other methods for example quantitative surveys and interviews to get a deeper understanding of both students and teachers' perceptions and experiences.
Keywords	learning management system, learning pathway, community of practice, independent learning, content analysis, second language learners

INTRODUCTION

The advent of new media and communication technologies has brought a profound transformation in the way educators and instructors share knowledge and information via online learning environments (López-Pérez, Pérez-López, & Rodríguez, 2011; Ma'arop & Embi, 2016; Wu, Tennyson, & Hsia, 2010). One of the applications in this electronic learning environment is termed as blended learning. Also known as hybrid learning, blended learning incorporates traditional face-to-face instruction with digital technologies including asynchronous (text-based Internet) and/or synchronous online learning (Garrison & Kanuka, 2004; Levin, Whitsett, & Wood, 2013; So & Brush, 2008; Wu et al., 2010). Therefore, the entire process occurs both in the schoolroom and online, in which the online component is viewed as an extensional education method (Jusoff & Khodabandelou, 2009).

Even though blended learning has become well-established in numerous higher educational institutions (Allen, Seaman, & Garret, 2007; Godambe, Picciano, Schroeder, & Schweber, 2004; Norberg, Dziuban, & Moskal, 2011), a lot of them appear to have difficulties with the full implementation and conceptualization of such learning environments (Brooks, 2008; Luaran, Sardi, Aziz & Alias, 2016; Ma'arop et al., 2016; The Oxford Group, 2013). In most of successful cases, blended courses are generally aligned strategically with the institution' vision (The Oxford Group, 2013). Thus, the learning delivery methods in blended learning will be designed to match with the needs of students, faculty, and institution accordingly (Alammary, Sheard, & Carbone, 2014; Mason & Rennie, 2006; Sharpe, Benfield, Roberts, & Francis, 2006). For example, a university strategy to overcome the classrooms' space limitations or deeper collaboration in the faculty finds its ways in blended learning (Wakefield, Carlisle, Hall, & Attree, 2009). For faculty, blended learning might be an effective way to bring additional engagement opportunity to an existing course, or in some other cases, offer alternative instruc-

tional delivery to ease the transition between traditional and online methods (Garrison & Kanuka, 2004; Graham & Robison, 2007; Spring, Graham, & Hadlock, 2016). In the student's perspective, blended learning provides the combination of online learning advantages and the instructional and social interactions which might not lend themselves to online delivery (Owston, York, & Murtha, 2013). Consequently, blended learning could become an exceptional method to transform the institution when used to simultaneously address the needs of those constituencies.

In blended learning, the lecture materials and readings for the tutorials are typically available through the e-learning platform, which supports a collection of communication and presentation functions. An exemplar is Blackboard, which delivers leading-edge and flexible technologies (Blackboard, 2019) and is used by some institutions to deliver online content. This mode of delivery is considered as blended in a way that learners can use a combination of methods of studying: through personal contact with instructors and their fellows and through individual access to learning materials. Within Blackboard, teachers can implement and design specific areas for particular modules, and course content could be prepared by commonly used applications such as PowerPoint and Microsoft word, videos, and a series of online exercises that can be created on the learning platform. The students' progress can be monitored through assessment statistics, resource usage, and course analytics.

Blackboard has been reported to effectively support the learning of students and affect their learning outcomes positively (Hamad, 2017; Ransdell, 2013). It is critical for instructors to proceed with digital learning innovations based on sound pedagogical underpinnings (Adams, 2004), since it is advised that there might be a risk in allowing technology to override pedagogical aims (Brabazon, 2002). However, pedagogical challenges arisen in the development of learning management system (LMS) have been around for some time, and students and instructors were trained to use it in an effective way. Hence, the objective of this study is to find out how the learning experience of students was impacted by designing and implementing a blended learning pathway that focused on the connectivity of face-to-face activities with online activities, using the LMS Blackboard. Using a qualitative questionnaire with open questions, students will be asked for their opinion on the effectiveness of the online, in-class activities and whether they felt there was any connectivity between the two. This data will be analyzed using content analysis. Furthermore, data analytics from the LMS, teachers' observations and students' grade performance at the end of the semester will be analyzed to help answer the research questions.

Blended Learning Design

Learning design is widely believed to be the key factor which considerably influences Virtual Learning Environment behavior, learner satisfaction, and academic retention (Conole, 2012; Eysink et al., 2009, Rienties & Toetenel, 2016). The pedagogical concept of "blended learning" was supposedly first used in the early 2000s when Voci and Young (2001) integrated e-learning into their leadership development training program and recorded positive results in terms of teamwork, group learning, and common concept establishment. Following the study of Voci and Young (2001) was the period when researchers plausibly described blended learning. Despite the variety, definitions during this period shared the same point of view about blended learning: that it is the integration of online learning with face-to-face learning to improve student learning (Aycock, Garnham, & Kaleta, 2002; Kim, Bonk, & Oh, 2008; Mohamed-Amin, Norazah, & Ebrahim, 2014).

There is no optimal blended learning model that fits all learning purposes, because the design of a blended learning program must adequately deal with the exogenous factors of each specific course, namely, the nature of the instructional goals, student characteristics, instructor background and the category of resources (Aparicio, Bacao, & Oliveira, 2017; Osguthorpe & Graham, 2003; Picciano, Dziuban, & Graham, 2013; Senn, 2008; Spanjers et al., 2015; Tlili, Essalmi, Jemni, & Chen, 2016). Therefore, the instructor and designer always aim to find a "harmonious balance between online access to knowledge and face-to-face human interaction" (Osguthorpe & Graham, 2003). However, a blended learning model is always specified by four components: the roles of teacher, scheduling,

physical space, and delivery method. Osguthorpe and Graham (2003) summarized in their study three basic models which integrate online activities, online students, and online instructors respectively in the blended learning course. The skill-driven model, attitude driven-model, and competency-driven model are mentioned by Valiathan (2002). In terms of the extent to which the existing teaching program and student learning experience may change, Alammary et al. (2014) classified three design approaches: low-impact, medium-impact, and high-impact blend.

The key factor that determines the success of any mentioned model is technology. According to King (2002), information technology capabilities and accessibility have an impact on students' ability to engage with online materials. This view was reiterated by Alsabawy, Cater-Steel, and Soar, (2016) who found that information technology infrastructure services play a crucial role in producing good quality information, improve features of e-learning systems quality, and enhance the quality of service delivery. On the other hand, late feedback, poor internet connection, doubtful instruction of online learning, and differences in computer-based assessment strategies may have a negative impact on students' performance (Alsabawy et al., 2016; C.C. Chen & Jones, 2007; Nguyen, Rienties, Toetenel, Ferguson, & Whitelock, 2017; Smyth, Houghton, Cooney, & Casey, 2012).

It is not difficult to find among recent studies the conclusions that students prefer blended learning's accessibility and flexibility, which leads to reduced drop-out rate, higher exam pass rates, improved learning faculty-student interaction and outcome, and increased motivation and creates a positive attitude and satisfaction (El-Deghaidy & Nouby, 2008; Hughes, 2007; López-Pérez et.al., 2011; Melton, Bland, & Chopak-Foss, 2009; Smith, 2015; Smyth et. al., 2012; So & Brush, 2008). Nevertheless, there are also studies that report blended learning may cause cyberloafing and generates no significant difference (Akyuz & Samsa, 2009; Deliağaoğlu & Yıldırım, 2008; Ng, 2010; F. G. K. Yilmaz, Yılmaz, Öztürk, Sezer, & Karademir, 2015). Hence, instructors and educators always face the challenge of designing a blended learning program that is tailored to the course purposes and students' characteristics to fully exploit its potential. Such programs must not only hold the advantages of both traditional face-to-face and online learning methods but also harmonize the disadvantages from each other.

With a focus on study design, this study will continue this conversation by examining how students may benefit from blended learning and the connectivity between online and face-to-face learning and, consequently, seek to answer the following research question:

- How do students benefit from blended learning and the connectivity between online and face-to-face learning?

The following sections will review the benefits of blended learning, challenges faced by teachers when implementing blended learning, and teachers' perceptions of blended learning with the aim of understanding the issues associated with blended learning design and what factors might impede the students' ability to fully benefit from blended learning.

Benefits of Blended Learning

Blended learning indicates the integration of traditional classroom instruction with online learning utilizing actionable data to offer learners a customized education pathway (Horn & Staker, 2011). By using blended learning, learners have the flexibility to manage location, time, pace, and content of their learning (Powell et al., 2015). In addition, instructors can customize the instruction given to students based on the real time data on their progress (Hilliard, 2015; Horn & Staker, 2011). As such, instructors using such a method can assign tailored instructions for individual students based on their progress and abilities, since blended learning frameworks could help with independent tasks, small groups, and the entire class (Freeland, 2015, Powell, Rabbitt, & Kennedy, 2014). According to Powell et al. (2015), this differentiation improves the reading of various audiences. Due to its advantages over the teacher-led instruction method, blended learning has been not only adopted for targeted audience, but also the educational environment in general (Horn & Staker, 2011)

Both online learning and other face-to-face modes have their strengths. Blended learning is often selected based on a number of reasons, such as to increase cost effectiveness, improve flexibility and access, and pedagogical method improvement (Azizan, 2010; Poon, 2012). According to Occhipinti (2017), the combination of online and face-to-face delivery format would be the finest approach to encourage students' learning as the entire fundamental learning activities, including reflection, interaction, adaptation and discussion, could be incorporated. On the other hand, the benefits of blended learning are dependent upon the level of expectation, perspective, opinion, and satisfaction of students, which are crucial in the evaluation of the learning process effectiveness (Akkoyunlu & Yılmaz-Soylu, 2008; R. Yilmaz, 2017). Moreover, if learners feel their learning experience is gratifying and individually fulfilling, they will have more interactions, which can enhance their learning (Esani, 2010; Karimi & Ahmad, 2013)

Blended courses are gaining popularity amongst students at institutions where the blended learning is offered. While previous studies have examined some benefits of blended learning, such as increased cost effectiveness (Azizan, 2010; Bonk & Graham, 2012) or improved pedagogy (Bonk & Graham, 2012; Joosten, Barth, Harness, & Weber, 2014), a frequent reason for integrating traditional with online instruction is improved flexibility for students (Alebaikan & Troudi, 2010; Bonk & Graham, 2012; Gomez & Igado, 2008; Korr, Derwin, Greene, & Sokolof, 2012; Sharpe et al., 2006). The improved flexibility suggests that students can take advantage of much of the flexibility and convenience of online courses whilst retaining the benefits of traditional classroom experience (Horn & Staker, 2011, 2014; Osguthorpe & Graham, 2003). In addition, students might have some level of control regarding their pathway by managing the order of content that is offered throughout the course (Van Laer & Elen, 2017) and pace of learning by following their own speed of learning (Horn & Staker, 2014). Lastly, the other option of flexibility is that students might have the choice to select amongst face-to-face or instructional activities or digital learning (Owston et al., 2013). As a result, there is always the challenge that arises throughout the application of blended learning environment regarding as to how to integrate flexibility and to what extent it is good for the learning.

On the other hand, the benefits of blended courses for collaborative learning have been discussed in several studies. Earlier research indicates that the mere presence of such learning method will enhance students' engagement (Owston et al., 2013) and trigger positive impressions for satisfaction and collaboration (Sergis, Sampson, & Pelliccione, 2018; So & Brush, 2008), whereas some studies claim that satisfaction and engagement are associated with matters such as learner's capability to control the technology (Holley & Oliver, 2010). Other studies explore the utilization of online learning, which describes the use of interactive media providing opportunities for learners to learn collaboratively (Gan, Menkhoff, & Smith, 2015), as well as promoting collaborative writing through wikis (Wang, 2015).

The most comprehensive evidence-based support for the usefulness of blended learning is provided in a meta-analysis by Bernard, Borokhovski, Schmid, Tamim, and Abrami (2014). According to Bernard et al. (2014), such learning method surpassed the class-based instructions by around thirty percent of a standard deviation regarding learning outcomes. The significance of the benefits was, however, affected by the way the digital components were given, that is, content and presentation or cognitive support; and the combination of more than one constituent, for example student-teacher, student-student, or student-content interaction, improved students' attainment. An extant research on the randomized video assignment provided to biochemistry students showed that blended learning could enhance in-class problem solving and increase students' attendance and satisfaction (Sergis et al., 2018; Stockwell, Stockwell, Cennamo, & Jiang, 2015). Another finding was that learners attending in instructor-led classrooms reported lower performance than their peers involved in the actively problem-solving class even though they had similar satisfaction with the experience (Stockwell et al., 2015). This finding is of importance as it indicates there might be educational benefits of blended learning and that learners do not think negatively about the blended learning environment in comparison with the traditional approach.

Even though several studies have highlighted the benefits of blended learning, implementing blended learning has its challenges, and if not addressed properly these challenges will prohibit the success of blended of blended learning and discourage other educators from considering blended learning in the first place.

Challenges in Implementing Blended Learning

Although the literature extensively explores the benefits of blended learning, limited research exists to provide a detailed design principle for implementing instructional activities in blended courses. As such, researchers and instructors are having struggles to implement the blended learning environment (Moskal, Dziuban, & Hartman, 2013). Following a systematic literature review, Boelens, De Wever, and Voet (2017) outlined four major challenges to design a concrete principle in blended learning, which are how to incorporate flexibility, facilitate students' interaction and learning process, and in what ways to foster an effective learning environment.

Blended learning is a flexible approach which goes beyond time, location, and cultural constraints (Garner & Rouse, 2016; Porter, Graham, Spring, & Welch, 2014), and increased flexibility for learners appears to be one of the most cited rationale for the combination of traditional classroom with online instructional methods (Bonk & Graham, 2012; Lertnattee & Pamonsinlapatham, 2017; Porter et al., 2014). Such mode of delivery indicates that students have flexibility in terms of where they study, path of learning, and pace of learning (Horn & Staker, 2011). The online learning environments might enhance convenience and flexibility by adopting asynchronous rather than synchronous communication, providing a greater reach and allowing learners to learn at a place that suits them (Osguthorpe & Graham, 2003). Moreover, students might have their own control on the order of knowledge acquired based on their preference, (Van Laer & Elen, 2017), as well as the pace, by studying course content at their suitable speed (Horn & Staker, 2014). Lastly, the other kind of flexibility is that students might have the choice to choose their preferred delivery method such as face-to-face or digital learning (Owston et al., 2013). Therefore, several benefits regarding flexibility raise the question as to how to incorporate flexibility and how much is the right amount, and this is the first challenge that needs to be addressed when designing the blended courses.

The online learning components of blended courses might be able to accommodate more flexibility in terms of space and time, which could lead to an increased communication and psychological space, described as transaction distance (Moore, 1993). As the use of distance learning increases, social interaction becomes much more complex. Thus, the second challenge has to do with the facilitation of interaction in blended courses. According to Chen, Wang, and Chen (2014), high transactional distance leads to a separation between instructors and students under which instructors cannot discern when students are facing challenges or they do not have a good understanding of what students have truly learnt. As a result, it might create a potential misunderstanding between inputs of instructors and those of learners (Moore, 1993). On the other hand, the face-to-face component of blended learning decreases the transactional distance by bringing students together and enabling both nonverbal and verbal communication through portions of the course (Osguthorpe & Graham, 2003). However, some students have also acknowledged the importance of the dialogue between them and instructors in the digital part of the blended learning approach (Ausburn, 2004; McDonald, 2014). In other words, there are a considerable number of students demanding the flexibility provided by the blended courses, but they are also afraid to miss the human touch and social interaction that they are used to (Bonk & Graham, 2012).

Most online learning systems are not designed to develop metacognitive skills in learners, even though it is characterized by autonomy, hence, self-regulation becomes a critical factor for success (Barnard, Lan, To, Paton, & Lai, 2009, Bonk, Kim, & Zeng, 2005, Van Laer & Elen, 2017). Particularly, there are several skills needed to successfully participate in blended learning such as time management, discipline, organization, technology savvy, and self-efficacy (McDonald, 2014). Therefore, it has been found that the improved flexibility and learner control are particularly valuable for self-

regulated or high-achieving students, whereas low-achieving students might not have the requisite skills for independent learning (Owston et al., 2013, Tsai & Shen, 2009). Therefore, the third challenge revolves around the facilitation of those learners' learning processes.

Lastly, because of the extended learning setting to the online environment, the online interactions tend to be less spontaneous than face-to-face communication, which makes students feel isolated (McDonald, 2014). This could lead to a decrease in motivation to study (Osguthorpe & Graham, 2003), and, as a result, increase the number of dropouts (Angelino, Williams, & Natvig, 2007). Fostering an affective and motivating learning environment, therefore, is critical to design effective blended learning courses, making sure the students have a sense of being valued, accepted, feeling secure and have a positive attitude towards the course and instructors (Dixon, Yssel, McConnell, & Hardin, 2014; Mazer, Murphy, & Simonds, 2007). Studies have shown the benefits of positive effective learning environment, such as facilitating students' academic progress (Vermunt & Verloop, 1999), and encouraging learner results, such as well-being, creativity, and intrinsic motivation (Haerens, Vansteenkiste, Aelterman, & Van den Berghe., 2016). There are several methods that teachers can utilize to enhance the positive affective learning environment, such as giving encouragement, paying attention to individual differences, focusing on task-relevant perspectives, sense of humor, and showing empathy (Dixon et al., 2014; Mazer et al., 2007). Therefore, building an affective learning environment is the fourth challenge required to be addressed when designing a concrete blended learning environment.

Teachers' Perception of Blended Learning

According to Sorbie (2015), another important part of learning and teaching is the instructors' own experience of the process. In the context of blended learning, gaining a greater understanding of instructors' perceptions is plays a crucial role in the success of this learning approach by highlighting the key components, such as benefits, and drawbacks based on the experiences of instructors. By fully understanding these perceptions, shortfalls and imperfections can be adjusted to attain the desired learning outcomes. This study undertook a comprehensive review on two aspects concerning instructors' perceptions, which are the benefits gained and the resistance to adopt blended learning, to highlight the issues instructors must bear in mind when implementing blended learning. This review, coupled with our own experience will serve to elucidate those in practice on the issues inherent in the implementation of blended learning.

Many academics have positive perceptions towards blended learning. A study conducted with a group of instructors in a pilot program of blended learning by Garnham and Kaleta (2002) showed the instructors' perception of blended learning was that it was a better learning environment. This view was also shared by lecturers from the University of Glamorgan in the UK with a study indicating blended learning had better understanding of various learning styles and pedagogies (Jones & Lau, 2009). Moreover, research in Japan studying the means of interaction between students in higher education showed that the adoption of online tools in blended learning provides learners with opportunities for interacting with others and enhances their learning (Chou, 2001).

Instructors' perceptions of blended learning vary and include the value of this approach for self-regulated learning, better communication, engagement, collaboration, and enhancement of organization. Moreover, academics think that blended learning allows learners to be self-regulated in their centered environment whilst providing real world context (Motteram & Sharma, 2009). As such, they elaborate on the way technology integration can provide the self-regulation in students' learning. According to Van Laer and Elen (2017), the individualization of students' learning is considered an enhancement, offering intimate assistance and choices and customizing the environment to individual tastes.

On the other hand, to what extent digital technology can be utilized in academic learning contexts might play a less clear-cut role. As Laurillard (2007) implies, there is a high cost of transition from the structured social context of higher education institutions to the additional online delivery. This

change must take into consideration many aspects, such as needs of stakeholders, funding framework, career rewards, assessment methods, and drivers of curriculum, which might get rid of the current structure. For academics, their position within the traditional structure might be reconstructed, which might cause the resistance to change (Martins & Nunes, 2016a). Online learning requires an enhanced set of skills and attributes designed specifically for the online delivery of metacognitive, higher-order thinking skills, and lifelong learning (Nunes & McPherson, 2003). These related requirements of such skills might be beyond the academics' accredited subject matter expertise. Academics face the challenge of moving away from their existing practices to handle the numerous choices of teaching methods that become accessible (Carbonell, Herbert, & Gijselaers, 2013)

Extant studies on blended learning and the roles of instructors pinpoint many challenges often felt within higher education institutions that might have negative impacts on instructors' perceptions and deployment of blended learning. Instructors are reluctant to deal with overwhelming process-associated demands (Martins & Nunes, 2016b); intensified course contents and enquiries from learners (de Vries et al., 2005; Kester & Sloep, 2009); and growing demands to establish social presence and cognitive learning even for large class sizes (Nagel & Kotzé, 2010). Those additional tasks are perceived to be time consuming and strongly belonging to a new range of responsibilities. (Goodyear, 2006; Martins & Nunes, 2016b).

Most of those challenges are not handled properly at the organizational level. On this perspective, the perceived lack of recognition and rewards for their additional efforts from the upper level and fellows might inhibit instructors' enthusiasm to create online learning environments (Birch & Burnett, 2009). Likewise, the lack of support from the organization might consume much more of their time and resources, which can be used to pursue their careers, particularly the attempt to get tenured at the institution (Green, Alejandro & Brown, 2009). Apart from the overloads in teaching and process-related tasks, the online component of blended learning might bring other obstacles such as the absence of proper training, a lack of tenure consideration (Cook, Ley, Crawford, & Warner, 2009), and intensified time commitment (Orr, Williams, & Pennington, 2009). Due to the absence of institutional incentive and rewards, instructors find it unappealing to consider online learning adoption (Loureiro-Koechlin & Allan, 2010).

Our institution was ready to deal with some of the challenges faced by those designing and implementing blended learning by setting up a community of practice for staff to share how they were designing and implementing blended learning in their courses. Teachers also received technical training and were allocated time to work on the project. This institutional support also proved to be very crucial to the success of the project.

In seeking to answer the research question:

- How do students benefit from blended learning and the connectivity between online and face-to-face learning?

the study also addressed the following inter-related questions:

- how do students benefit from online activities?
- how do students benefit from face-to-face activities?
- how well do the activities on Blackboard connect to the activities in class?

The next section details the methodology employed during the study.

METHODOLOGY

RESEARCH SETTING

Accounting in Organizations and Society (AOS) is a first-year course and one of the core eight courses students from the Bachelor of Business Degree and the Diploma in Business program need

to take. During the research period, there were 393 students enrolled in this course and out of the total 339 students used Blackboard. From the total some of the students were pursuing the degree program while others were from the diploma program.

In the previous semesters, teachers noticed that students were not reading and preparing for class, and this was a big problem for second language learners as failure to read and prepare before class meant they were not able to follow what was going on in class. Precious class time would be spent explaining the basics, including the required vocabulary for the topic.

In dealing with this problem, a new way of teaching and assessing the course was introduced. Students were given questions to prepare before each topic, and they were required to bring them to class for discussion. This method encouraged the students to read and answer the questions before class as this became an important assessment component for them. Developing a blended learning pathway was one way of improving this concept even further by uploading the easier questions and activities online for students to work on independently.

Since the eight core courses are essential to the Bachelor of Business degree program the Learning and Teaching department of the university embarked on a project to transform the student experience on the core eight courses through innovative utilization of Blackboard. Blackboard is the Learning Management System (LMS) used by the university. Previously, it was noted that Blackboard was mainly used as a 'filing cabinet' where files on teaching notes were uploaded and stored without any activities that were meaningful and engaging to the students.

A 'community of practice' project was created where team members and course coordinators gathered every week to share what they were doing in their courses especially on what was working well and what was not working so well.

The meetings were useful to those who had not started as it provided a glimpse of what to expect in terms of time commitments, resources, and future challenges, especially in terms of getting the students to embrace the changes, renew their mindsets, and take advantage of new materials. Some team leaders faced challenges in getting the other team members to cooperate. There were also some team members who viewed the project as arduous and a strain on their time.

The AOS course coordinator started attending these meetings two semesters before implementation, just to grasp what was involved and to plan on the best way in handling the project. Subsequently the AOS teaching team held regular meetings to determine how the members were going to work on the project and allocate the workload among them. The team was provided with a spreadsheet that was used as a blueprint when creating the Blended learning pathway.

The teaching structure was based on two 1.5-hour tutorials every week. So, there was a need to develop activities that students would need to complete before the first tutorial. These activities were supposed to connect with whatever was going to be taught in the classroom, and the idea was to make sure students covered the easy materials on their own online and then class time would focus on the more difficult content. There were activities that would reinforce what was learnt during the first class and get the students ready for the second class and then wrap-up activities at the end of the second session.

The teachers also made sure the activities were easy enough for the students to complete independently, and students were able to get feedback on their work instantly. The wrap-up activities were designed to help students review and reinforce what they had learnt during the week. Again, this was an opportunity for the students to identify areas that hadn't worked out well and then ask questions.

The team members went through the materials by first considering the learning objectives for each week, and then evaluating the materials, exercises, and activities for each session. The materials were then rearranged and redesigned to make sure there was a logical flow of the content connecting online activities with in-class activities. The online content was designed to help students understand

the key concepts and the vocabulary so that time was not wasted on explaining the terminology in class. Class activities that were not value adding were eliminated.

There was a variety of class activities for each week to avoid monotony and boredom, at the same time to encourage students to participate in the activities. This is followed by formative assessments such as true or false questions, fill in the blanks, calculations, short answer questions, and multiple-choice questions.

The formative assessments were connected to the grade-center which allowed the teachers to identify who has and hasn't been doing their preparation and hence the teachers would encourage the students to be more prepared and use the online materials. Students were also made aware that content that was available online would not be covered again in class.

Data Collection

The semester usually has 12 weeks of teaching, and in week 8 a qualitative study was carried out to find out from the students what their experiences were like using Blackboard activities in comparison with in-class activities to help them learn and if they felt there was any connectivity between the activities designed. Although there were 12 groups taught by 5 different teachers, the course leaders ensured there was consistency among the groups across both campuses. There were regular team meetings for the teachers to share how the new system and materials were working out and to ensure there was consistency in delivery of the course. Moreover, the blended learning pathway acted as communication tool across the teaching team as well between teachers and students: the expectations were clear, and all the students had a similar experience. The data was collected from both campuses of the university across all the groups. The questionnaire was paper based and was administered by independent staff members during class time. The teacher was asked to leave the room during this time to eliminate bias emanating from the teachers' presence in the room. There were 220 respondents out of 339 users, a response rate of 65%.

Additionally, other sources of data included teachers' perceptions and experience of using the redesigned LMS, a comparison of exam results with the previous semester, analytics from Blackboard, as well as information from grade center. Retention rates were also evaluated and compared with previous semesters. All the findings will be present in the following sections.

Analysis of Results

Students' Perceptions

After the qualitative data was collected from the students using the open-ended questionnaires, the information was analyzed using content analysis. Content analysis was chosen because it "allows inferences to be made which can be corroborated with other methods of data collection" (Stemler, 2001). This suited our study better as other sources of data, such as information from the LMS, grade center, retention rates, and teachers' perceptions, were also used to validate the findings from the qualitative data. Our analysis made use of both word-count and categorization and the findings are presented next.

How do the activities on Blackboard help you?

Above is one of the questions students had to address, and the results are shown in Figure 1.

When asked how Blackboard activities helped them learn 220 students responded to this question and a summary of their responses is shown in Figure 1. A total of 48% indicated that the activities helped them prepare for class, review, and practice what they had learnt, and the activities also helped them understand the materials even better. Some students found the materials helpful, useful, and convenient to use, and this view was reiterated by 37% of the respondents. However, not all the respondents were completely satisfied with the fresh look and materials: 10% of the respondents re-

ported that the materials were somewhat or not really helpful and 4% were neutral, in other words they were indifferent to the new shell. The last 1% were dissatisfied due to technical and other issues.

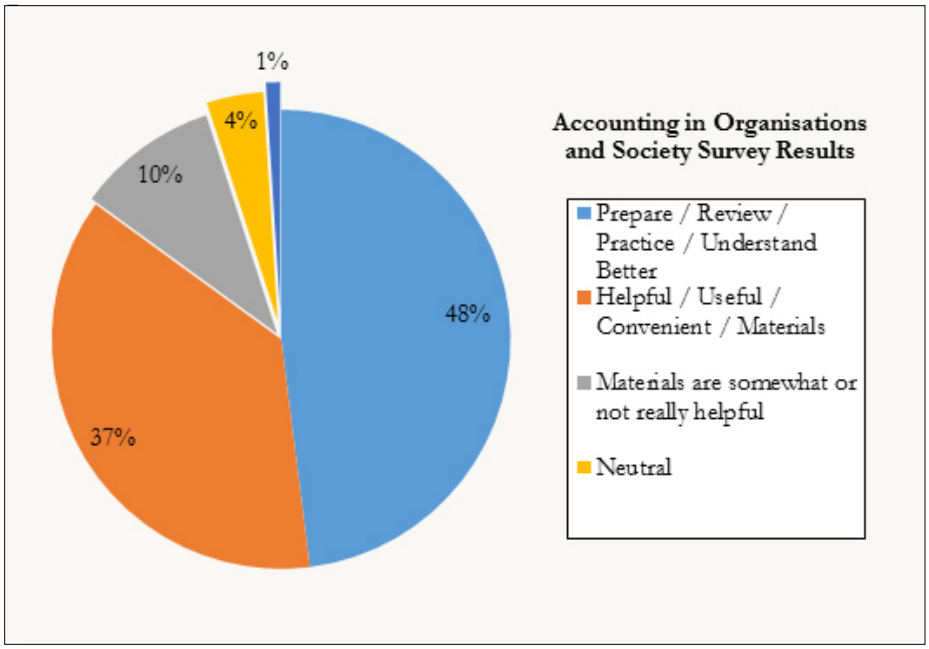

Figure 1: How do the activities on Blackboard help you?

It is evident from these responses that overall students found the activities useful and were able to use the activities to support and enhance their learning.

How do the activities in class help you learn?

In order to understand the impact of the in-class activities on students' learning, the question above was included in the questionnaire.

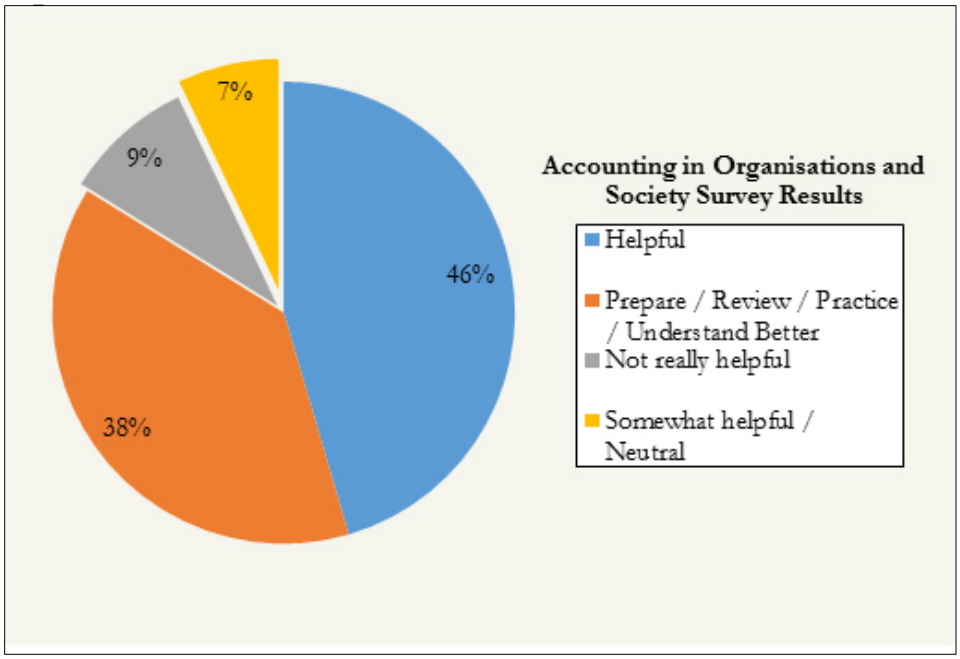

Figure 2: How do the activities in class help you learn?

Figure 2 summarizes the responses to the question "how do the activities in class help you learn?". This question received 211 responses. From the total responses 45% of them said the class activities were helpful without providing further details, while 38% felt the activities helped them prepare for class, practice, review, and understand better what they had learnt. In contrast, 9% of the respondents felt the in-class activities were not helpful, and 7% felt the activities were somewhat helpful and among this 7% were some who were indifferent.

As can be seen from Figures 1and 2, the levels of satisfaction for both Blackboard activities and in-class activities were very similar which goes to show both modes of learning were well designed.

How well do the activities on Blackboard connect to the activities in class?

Another question the students had to address was relating to the connectivity of online and in-class activities as shown above and the results are displayed in Figure 3.

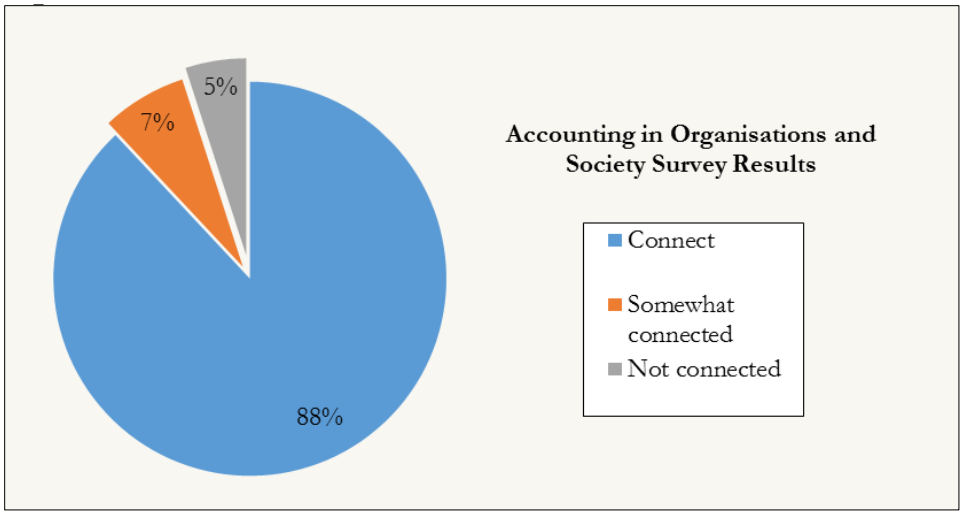

Figure 3: How well do the activities on Blackboard connect to the activities in class?

When designing the blended learning pathway, the staff took extra care to make sure there was connectivity of activities between what the students did online and face-to-face in class. It was important for the staff to identify whether the design had achieved the desired outcome or not. The question 'how Blackboard activities connect with in-class activities?' was addressed by 207 respondents. This was one way of finding out whether the design had worked well or not and whether there was a need to work on this connectivity or not.

As can be seen in Figure 3, the results indicated that students were very happy with the connectivity of the activities: 88% of the respondents indicated that there was connectivity between the in-class activities and blackboard activities, 7% felt they somewhat connected, and 5% indicated that they did not connect.

How do you think Blackboard activities for this course could be improved?

Reflection is an effective way of improving and growing in any field of practice. Bearing this in mind the above-stated question 'how do you think Blackboard activities for this course could be improved?' was necessary to allow the team to reflect on what worked well and what did not work so well from the students' perspectives. This question drew 181 responses. The views and responses were almost evenly spread out, without really swinging in a direction as depicted in Figure 4.

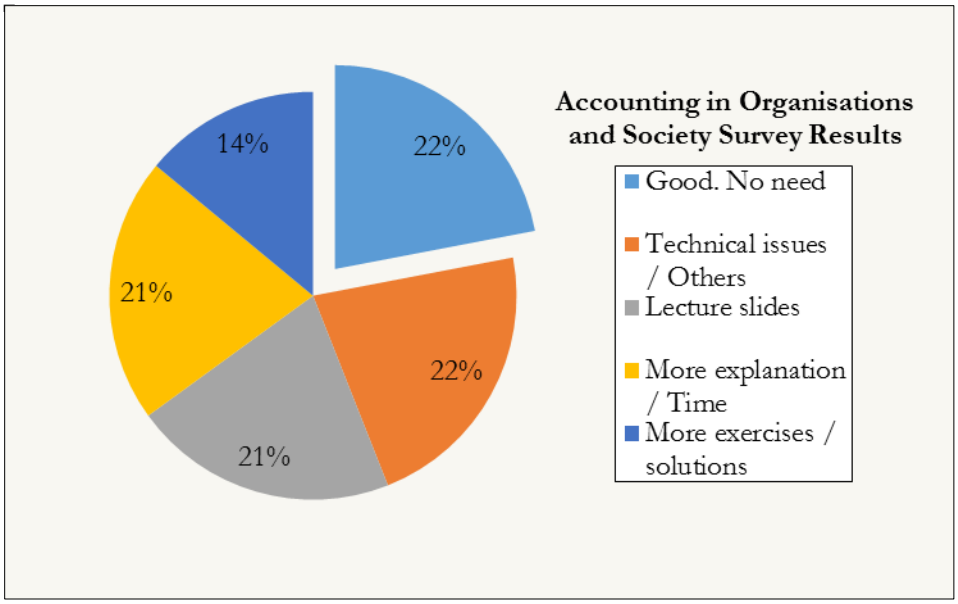

Figure 4: How do you think Blackboard activities for this course could be improved?

During the redesign of the pathway, it was agreed among the team that PowerPoint slides were not necessary as they acted as crutches in most cases and hindered students from reading widely and inadvertently may encourage them to take a short-cut. Another reason for this was that students usually complained that some teachers were reading the slides. Figure 4 shows that only 21% of the students felt that the activities could be improved by reinstating PowerPoint slides.

Other students felt there was a need to have more information, explanations, and more time for them to work on the activities. This group accounted for 21% of the respondents, 14% indicated they would be happier with more exercises and solutions, 22% felt technical issues needed an improvement while 22% of the respondents felt the activities were perfect and did not need an improvement.

How do you think the in-class activities for this course could be improved?

The question 'How do you think in-class activities for this course could be improved?' stemmed from the quest for continuous improvement. Getting students' feedback on how the in-class activities could be improved was a good way of incorporating students' suggestions the blended learning design, and providing activities and materials that were tailored to meet the students' needs.

The question 'how you think in-class activities could be improved?' received 169 responses and as shown in Figure 5, 44% of the respondents felt that there was a need for more time, more information, and more explanations. While 33% felt the in-class activities were perfect and did not need improvements, 11% expressed the need for more exercises, practice and solutions, time and information. Technical and other issues were observed by 6% of the respondents. Although PowerPoint slides were not being used in-class, only 6% of the students would have liked to have PowerPoint slides to improve the in-class activities.

The findings also show that students were happy with the interaction and collaboration with their peers in class. This eliminates one of the major limitations of online learning, which is to avoid students from feeling isolated when preparing for the lesson. In other words, by engaging in the blended learning students get the best of both worlds, which is communication and feedback from their teachers and understanding of the lesson.

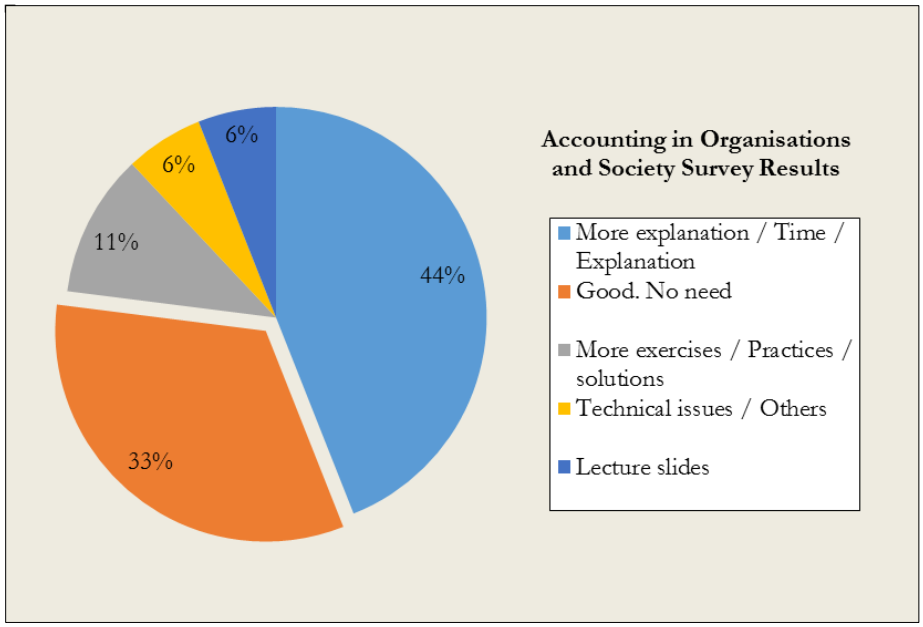

Figure 5: How do you think the in-class activities for this course could be improved?

Impact on Blackboard Usage and Students Performance

This research also extracted information from the online learning data and records collected by the LMS to find out the usage and number of hits per page for the AOS course. Analyses were recorded on the passing and failure rate of students by examining the grade center reports of past and current student performances. The results show that after implementing blended learning, there were several benefits on LMS usage that were reported as follows:

There was an increase in the average time spent online for each student during the semester. It rose from 12.39 hours per user to 14.37 hours per user. The average number of hours for each user over a four-semester period had been as follows: 12.39, 9.71, 13.06 and 14.37 hours per user per semester.

The percentage number of non-users also dropped during the period compared to other semesters. Non-users are students who have enrolled in the course but do not use the LMS for their studies. The number of hits on the course pages was 20,187 and 78% of these were on learning resources, indicating an important level of student engagement with the materials.

The drop-out rates from the course reached an all-time low after the implementation of the revised Blackboard shell. The number went down by 3% from the previous semester compared to the semester in question. This is a further indication that students felt more confident about taking the course, had a clearer picture in terms of what to expect, and had an overall improved experience. Because of better communication and support for the students, they were intrinsically encouraged not to drop-out from the course.

Furthermore, in comparison with the previous semester, there was an improvement in the overall performance of students, with an increased percentage of higher distinctions, reduced failure rates and a lower percentage of students who did not show up during the final exams (DNS). Students from the Diploma program usually had a higher percentage of DNS and it is worth noting that after introducing the redesigned Blackboard shell, this number dropped to zero. A further indication that students felt more confident about their abilities, clarity of the content and subsequently they did not feel the pressure to pull out of final exams.

BENEFITS – BASED ON TEACHERS' EXPERIENCE

The teaching staff noticed that it was easier to engage and interact with students in class. Students were more willing to engage with the learning management system (LMS) and get their weekly reading ready. The LMS site was pleasant to look at because it had pictures that were eye catching and attractive. In other words, it helped students who were visual learners.

It acted as a communication tool for both students and teachers. Students knew what they needed to do before class and they also knew what would be covered in class. Since this is a big course, there are usually several lecturers teaching the same course. This project benefited the team members as it provided them the opportunity to work together and be consistent in their teaching and learning. It is important to maintain consistency among all the members so that students have a similar experience throughout the semester. With the new LMS shell, teachers knew what the students were doing in between classes and what exercises and activities would be covered in each session.

This was one way of providing the students with instant feedback; they could do the exercises as many times as they wanted until they were satisfied with the desired results. Since the students had done the reading and were prepared for class, it was easier for the teachers to introduce new and more difficult content in class as the students had already covered the basics. In the past, since the students are second-language learners, precious time was spent on explaining the meaning of key vocabulary for AOS without which students could not understand the rest of the topic. In addition, it was also difficult for most of the first-year students to follow and keep up with the requirements of their studies. Since the LMS was well organized with a lot of useful information it helped guide the students to organize their studies.

Furthermore, as information on grade center gave details of who was and was not doing the online activities, teachers were able to monitor those students who were at risk of failing and intervened before it was too late.

Lastly all teachers who taught the AOS course were happy to have learnt and developed new technical skills during this project.

DISCUSSION

The results indicate that students found both online and in-class activities beneficial for their studies and, therefore, appreciated the connectivity between in-class and Blackboard activities. The high levels of connectivity helped reduce the pressure of understanding the materials from face-to-face instruction: learning was a continuous process. This is clearly revealed by the lowest DNS rate from the diploma program students. The use of blended learning not only allowed the diploma program students who found difficulties in using English for learning, to have more time to get through new vocabularies and core terminologies on the online content, but also created a better interaction environment between students and teachers. Students also had plenty opportunities to re-do exercises and formative assessments until they received the desired results. Students also received a clearer picture about their class schedules and contents which encouraged them to complete the course, take final exams, and be more confident about their abilities. In seeing the connectivity between what was done online and what happened in-class, students saw the value in what they were doing and understood that missing out on part of the activities meant they would struggle to follow the rest of the topic. Blended learning pathway would greatly benefit second language learners to learn better and empower them to be more independent as self-directed learners who are able to utilize their time wisely.

Blended learning design is a critical factor in ensuring students get a valuable experience in engaging with the topic and the teacher. A well-designed blended learning pathway is useful in coordinating the activities between the teaching teams. Blended learning can facilitate communication between the teaching teams and from teachers to students. This is especially critical for first year, second language

learners who usually need a lot more support and guidance to transition from high school to university and get conversant with the way courses are run at university.

As indicated by our results, the student experience was transformed by using the blended learning pathway through the Blackboard shell. They found the activities on the LMS helpful and connected with the in-class activities. Interestingly, it is observed that the drop-out rate, the failure rate, and the percentage of DNS for the AOS course decreased at the end of the semester. One possible explanation is that the blended learning using Blackboard facilitates preparation for classes, helps the students understand the materials better, and allows them to review and practice what they have learnt more effectively. Students understand what they need to do. The results also corroborate the findings by López-Pérez et al. (2011) who reported that by using a new blended learning environment pass rates and student attendance will be highly increased.

The analysis from the online learning data extracted from Blackboard also showed the integration of Blackboard and online learning activities increased the online hours per user and decreased the percentage of non-users. In fact, 78% of the total hits on the course pages were on learning resources, indicating students were spending more time tackling the online activities. In line with the argument of Aycock et al. (2002), this may be an indication that online materials from our blended learning design inspired the engagement of students and therefore improved their academic performance.

The findings have provided answers to our main research question:

- How do students benefit from blended learning and the connectivity between online and face-to-face learning?

CONCLUSION, IMPLICATIONS, AND LIMITATIONS

According to Kitchneham (2005), teachers are not always able to implement blended learning due to poor infrastructure, limited resources, and a lack of time. In our experience, institutional support was indeed invaluable in facilitating the design and implementation of a blended learning pathway that was outstanding and met the needs of students.

Blended learning has the potential to transform higher education. However, its successful implementation depends on institutional support and teachers being allocated enough time to work on the projects. Besides, communities of practice are an effective way of sharing knowledge and supporting teachers as they design and implement blended learning. For this research the community of practice project was an excellent platform to encourage teaching teams to work together and create innovative teaching and assessment materials.

Although we can conclude that blended learning and the connectivity between online and face-to-face activities facilitated the achievement of positive outcomes for our students, it is worth noting that some of them felt some adjustments related to the activities, time, information and explanation, presentation program, exercises, and solutions were needed. We also should not ignore the minor proportion of students who feel indifferent and unsatisfied with the blended learning program. The implication of this finding supports the argument of Osguthorpe and Graham (2003) that there is a challenge to educators and designers to find such a suitable blended learning program that is tailored for students' learning style and circumstances. However, seeking feedback from teachers and students with the aim of initiating continuous improvements is one way of dealing with this challenge.

Owston et al. (2013) postulated that "when scaling up blended learning, institutions may want to consider offering students a choice of whether to enroll in blended or fully face-to-face course sections where feasible, especially in subject areas that students find difficult." This option may help students who prefer traditional face-to-face teaching and those who are competent learners, who do not need extra support and help from peers or teachers that are structured in the course content. However, in our case, our cohort of learners benefitted from both online and face-to-face activities, which helped them understand and practice the basic concepts on their own, and being first year students,

the connectivity of the activities provided them with the extra guidance and made the expectations of the course explicit.

These findings will be of use to educators looking to design a blended learning pathway to assist first-year students' transition to university life, as well as assist second language learners become independent learners in the study of accounting and other business relate courses. Educators should pay attention to the type activities being done online and face-to-face and ensure there is connectivity between them.

Like any other empirical research, this study has some limitations. The first limitation relates to the fact that the sample selection is focused on one course. Hence, there is room for future studies to observe the impact of blended learning using Blackboard and other Learning Management Systems on different course samples with more observations and diverse types of analyses, which may improve the results' robustness. Another limitation is this research does not include students' experiences and performances with blended learning program in the other seven core courses in the Bachelor of Business degree and Diploma program. Thus, future study should investigate the aggregate impact of blended learning programs on students during the whole Bachelor of Business Degree program. Finally, further investigation on factors that cause dissatisfaction with the LMS and online learning among students, such as cyberloafing (F. G. K. Yilmaz et al., 2015), gender (Naaj, Nachouki, & Ankit, 2012), facilitating conditions (Khechine, Lakhal, Pascot, & Bytha, 2014), will be encouraged. The study has considered teachers' perceptions from only one course; future studies could investigate whether teachers from different courses would report different experiences.

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