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Blended Learning Pedagogy to Support Student-Centered Classrooms

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Abstract. Blended learning has become a mainstream educational activity that gives teachers the ability to flip classrooms, improve instruction, and empower student independent learning. However, flipping the class is not enough to support students' learning but through the design and implementation that accounts for a sufficient understanding of technology, content, and pedagogy. This study investigated 5 blended learning courses and 50 faculty assessed the school's support using quantitative and qualitative data and correlational methods of analysis. 126 students were asked about their satisfaction and quality of BL implementation. Majority of the implementers do not have a model to anchor in the BL implementation. Students evaluated BL courses somehow partially meet student satisfaction in terms of engagement, tools and information needed during the actual implementation compared to the expected practices students prefer. Thus, the result is a groundwork in designing the blended learning model to address blended learning gaps. The developed BL model includes the elements of college policy support and faculty support in the planning stage, student and faculty support in implementation stage, and student support and policy support in monitoring and evaluation stage. Researchers believe an overarching collaboration of the said elements will ensure quality student-centered blended learning implementation.

Keywords: Blended Learning, blended learning model, Flipped Classroom, Student-centered classroom

1. Introduction

Blended learning involves both digital and face-to-face content delivery methods. This approach has been used as a transition to a more student-centered classroom that provides learners a road map of navigating their learning through working at their own pace (Moore et al., 2017). BL leverages technology with differentiation to engage students with diverse needs for them to have equal chances of succeeding in the modern classrooms (Bouilheres et al., 2020). Ozdamli and Asiksov (2016) term BL as an innovative learning approach that can develop personalized learning which focuses on student's success in developing various skills such as creativity, innovation, critical thinking, problem-solving, communication, and collaboration, and metacognition and deep learning.

Over the years, blended learning has become a mainstream educational activity that has been particularly appealing to an increasing number of higher educational institutions. Danker (2015) verified that flipped classrooms could remodel lecture classes into active-learning classes emphasizing student-centered learning approach in the possibility of individualized learning through teacher's ability to provide tutoring technology-infused lessons (Zhang and Fheng, 2017; Nedeva et al., 2019). It was through mitigating lecture videos converted into a format that students can assess through various means – laptops, tablets, computers, smartphones, and DVD players. However, this is contradicting the view of Fang et al. (2017), where they find out that despite the introduction of a variety of multimedia technology, students were tired of information bombardment in the whole teaching process that failed to develop their learning initiative. Moreover, they have noted encouraging collaborative learning through incentives, promoting the transformation of the students' role as 'learning center' and letting students have more experiences.

Bouilheres, Le, McDonald, Nkhoma, and Montera (2020) used blended learning as the displacement of content investigating the usefulness and effectiveness in promoting interactions between students and their peers, teachers, and course materials. They have concluded technology engages students in innovative ways and, when used appropriately, can enhance student performance and course satisfaction. Furthermore, apart from technology, it is essential to have an environment that promotes peer to peer and peer to instructor collaboration. It supports the study of Fassbinder and Barbosa (2015). It indicates that learning mediated by technologies is significant in the formation of students to be more creative, innovative, and critical independently but collaboratively (Ozdamli and Asiksov, 2016; Arundhati,2019).

Capone, Caterina, and Mazza (2017) stated that in blended learning classrooms, the teaching process is, in a sense, 'transferred' to learners. It lets learners control access to content directly with all the time needed for learning and assessment. Kintu, Zhu, Kagambe (2017) noted that learner satisfaction with a learning management system could be an antecedent factor for blended learning. Also, blended learning is highly dependent on experience in internet and computer applications (Lin and Vassar, 2009; Dziuban et al., 2018). In conclusion, in the study, they have investigated that among the design features, technology quality, online tools, and face to face support are predictors of learner satisfaction while learner characteristics of self-regulation and attitudes to blended learning of achievement. Graham, Woodfield, and Harrison (2018) investigated that the Quality Assessment system implementation ensures that the goals, policies, supports, and motivational mechanisms for developing blended learning are met as higher education institutions continuously pour resources for the development and improvement of technology education.

Every institution has a gap in assessing blended learning. Mindanao State University – Iligan Institute of Technology launched an online learning environment called MOLE or MSU-IIT Online Learning Environment. MOLE is a web-based educational system adapted from MOODLE with features such as communication tools, content delivery tools, assessment tools, and content exchange and group work tools. Its purpose is to cater to an eLearning platform for teachers who wish to adopt blended learning instruction.

In this study, the researchers investigated the existing blended learning of the College of education. Faculty members and students were interviewed to determine the best practices and challenges met during the implementation. However, despite the positive implications and initiatives, only a few teachers have implemented blended learning courses (Hechter & Vermette, 2012b, Kaleta, Skibba, & Joosten, 2007) in MOLE. The majority of the implementers do not have an idea of the model they used in their BL implementation. Students also evaluated that the blended learning course somehow partially meets their engagement, tools, and information needed, which leads their

satisfaction to be almost achieved by the actual implementation compared to the expected practices they prefer.

Developing a blended learning model is very useful in improving the capacity of the teacher. In this study, the assessed BL practices of implementers and students' perception, performance, and satisfaction towards blended learning, put in place necessary groundwork preparations in designing the mixed learning model to address blended learning gaps.

Objectives

Specifically, the study seeks answers to the following research objectives:

1. Assess the blended learning practices of implementers
2. Identify students' perception on the implementation of blended learning practices
3. Assess students' performance and satisfaction towards blended learning course created
4. Create a blended learning course using the proposed blended learning model
5. Compare the performance and satisfaction level of male and female students in the implementation of blended learning

2. Methodology

Research Design

This study is a descriptive type of research using quantitative and qualitative data and correlational methods of research. The rubrics were used for data collection and supplemented with an interview with the teachers, students, and panel of experts. They then triangulate the data to analyze the factors that hinder or motivate the implementation of blended learning. The study was conducted at a University in Northern Mindanao, Philippines.

Research Participants

This research examined fifty (50) teachers in the College of Education on their perceptions of the Institute's technology needs to implement blended learning courses. This study used a purposive sampling method. The researchers chose a five-faculty implementer of blended learning in the College of Education. Whereas four selected course experts evaluated the teachers' blended learning courses. These experts were considered based on training received and recognized experts in assessment, strategy, and technical aspects for blended learning format in MOLE. Also, 167 students enrolled under the selected, blended learning implementers participated.

Teacher Questionnaires

Two existing scales were used to assess the respondents' perception of Blended learning implementation in the College.

Survey A. School Technology Needs Assessment (STNA) tool.

The School Technology Needs Assessment (STNA) collects information from teachers about the schools' technology resources, how students and teachers use technology, teachers' technology skills, and the impact of technology use. The reference matrix for the STNA developed by Corn (2006), supplies a solid foundation for determining what a school needs to plan and improve upon the use of technology for teaching and learning (Kellogg, 2008).

Survey B. Course Design Rubric

CDR is a standardized survey instrument adapted from California Community Colleges (CCCs) and licensed under a Creative Commons Attribution 4.0 International License. It was developed in 2014 by the OEI Professional Development workgroup to ensure that all courses offered as part of the initiative promote student success and meet existing regulatory and accreditation requirements. The rubric contains the online course design standards to evaluate if all blended courses offered, fosters student success, and met the current regulatory and accreditation requirements. Also, this tool is for instructors seeking to update or improve existing courses.

Student Questionnaire

Survey C. The Quality Online Learning and Teaching Instrument (QOLT)

This instrument was used to assess students' perceptions of their teaching and learning experiences while enrolled in a blended learning course. The tool was a combination of two tools adopted from California State University (CSU) and Quality Matters Rubric from Arizona State University. The instrument has eight categories from Quality Matters: Course Overview and Introduction, Learning Objectives, Assessment and Measurement, Instructional Materials, Course activities, and Learner Interaction, Course Technology, Learner Support, Accessibility, and Usability.

Survey D. Constructivist On-Line Learning Environment Survey (COLLES)

This instrument was used to assess students' satisfaction towards blended learning. The device was developed by Peter Charles Taylor and Dorit Maor (2000) of Curtin University of Technology. This electronic questionnaire enables the researchers to monitor each student's preferred online learning environment and compare it with his/her actual experiences. The COLLES comprises an economical 24 statements grouped into six scales; relevance, reflective thinking, interactivity, tutor support, peer support, and interpretation - each of which helps us address a fundamental question about the quality of the blended learning environment. The COLLES contains a five-point Likert-type response scale -- Almost Never (1), Seldom (2), Sometimes (3), Often (4), Almost Always (5) -- with scores shown in parentheses.

3. Findings / Results

3.1 Assessment on the Blended Learning Practices of Implementers

Blended course design is a challenging part for the teacher in developing a unified structure learning activities for both online and face-to-face instruction. It requires educators to develop a critical viewpoint of technological, pedagogical, and content knowledge to educate students. The integral elements of a successful BL course design were the contexts of the classroom, content format, course activities, and evaluation methods (Graham, 2006; Rochester, 2004; Dam, 2003; Thorne, 2003; Carman, 2002; Collis & Moonen, 2001).SPecialists rate the current blended learning course with a majority of the integral elements as incomplete and not applicable standards in a successful blended learning course. This result shows that respondents had little experience with blended learning approaches, explicitly designing online and face-to-face, meaning learning activities and tasks. Although there is an attempt to provide interaction, it was not enough to achieve the desired goals. The rated assessment implies that implementers must make a unified syllabus for face-to-face and online learning activities before the BL course development that reflects the appropriate and timely assessment methods to assess different learning outcomes.

Table 1: Summary of Specialists Rating on the Existing Blended Learning Courses

Indicators	Novice Implementers		Intermediate Implementers		Advanced Implementers	
	Mean	Description	Mean	Description	Mean	Description
Content Presentation	1.19	Incomplete	1.32	Incomplete	1.50	Aligned
Interaction	1.00	Incomplete	1.02	Incomplete	1.41	Incomplete
Assessment	1.09	Incomplete	1.02	Incomplete	1.47	Incomplete
Accessibility-Content Pages	1.54	Incomplete	1.66	Incomplete	2.29	Incomplete
Accessibility-Files	1.84	Incomplete	2.10	Incomplete	2.08	Incomplete
Accessibility-Multimedia	1.31	Not Applicable	1.56	Incomplete	1.78	Incomplete
Accommodation	1.25	Not Applicable	1.50	Incomplete	1.38	Not Applicable

Legend:
Content Presentation, Interaction, & Assessment: 0-1.49= Incomplete;; 1.50-2.49=Aligned; 2.50-3.00= Additional Exemplary Element Accessibility & Accommodation : 0-1.49= Not Applicable; 1.50-2.49=Incomplete; 2.50-3.00= Aligned

The data revealed that all implementers are incomplete in meeting standards for accessibility of content pages, the convenience of files, and multimedia accessibility. However, the existing online learning platform can support teachers in modifying their course content to personalize the heading styles, videos, pictures, or format text and tables for a more presentable and accessible format. Furthermore, in terms of the quality of blended course design on the accessibility of accommodation, the teachers failed to provide a plan to accommodate students with learning disabilities. The built-in apps found in MOLE are not capable of catering to this need.

Supportive Environment and Technology Use

Successful blended learning initiatives stress the importance of institutional support (Dziuban et al., 2018). The Chancellor's institutional commitment to change unifies all resources, align shared visions, and collaborate support units to achieve common desired outcomes. Table 2 shows the summary result of teachers' perception in School technology Needs Assessment.

Table 2: Summary Perceptions of Faculty on Supportive Environment and Technology Use, N=50

Indicators	Mean	SD	Degree of Responses
Vision and shared leadership	4.80	1.23	Adequately Supportive
Organizational Condition	4.55	1.54	Adequately Supportive
Flexible Scheduling	4.40	1.56	Adequately Supportive
Infrastructure	4.34	1.27	Adequately Supportive
Staff Support	4.62	1.33	Adequately Supportive
Media and Software	4.97	1.05	Highly Adequate
Average Mean	4.61	1.33	Adequately Supportive

Faculty perceived vision and shared leadership, organizational condition, flexible scheduling, infrastructure, and staff support as adequately supportive while highly adequate in media and software as highly appropriate. The average support environment and technology used was perceived as highly adequate. It shows that the Institute could create a policy that mandates all teachers to implement blended learning courses to enhance learning environments for the benefit of students truly. However, there is a need to create implementing rules and regulations to guide teachers on the initiatives. It may include material incentives (M=3.38, SD= 1.77) and non-material incentives (M=4.34, SD=1.69) to motivate teachers to innovate practices and strategies with technology and adapt blended learning mode.

Professional Development

Professional development is significant as new technologies have inherent new properties that make it challenging to use for professional productivity. It has helped teachers to have self-reflection and improved pedagogical skills in planning a practical online course.

Table 3: Summary Perceptions of Faculty on Professional Development N=50

Indicators	Mean	SD	Degree of Responses
Instruction	4.99	1.03	Highly Beneficial
Planning	5.10	0.92	Highly Beneficial
Professional Development Quality	4.95	1.15	Highly Beneficial
Average Mean	5.01	1.03	Highly Beneficial

The faculty perceived; instruction, planning, and professional development quality as highly beneficial for professional development. Teachers observed that professional development helps gather data from teacher needs assessments to determine the appropriate development topics and activities and determine its impact on student learning. These imply that the success or failure of blended learning implementation in the institute depends on a robust training and professional development program. Nevertheless, professional development must be based on the analysis of student data, educator needs, and relevance to teaching practice in an online and blended learning environment.

Teaching and Learning

Timely and relevant professional development is vital as it will provide ongoing learning opportunities to increase teachers' skills, knowledge, and quick change in the

classroom practice (Birman, Desimone, Porter, & Garet, 2000). Starting with a practical approach and methods will ultimately determine the institutional adoption of blended learning, as Graham and Robison (2007) suggested.

Table 4: Summary Perceptions of Faculty on Teaching and Learning N=50

Indicators	Mean	SD	Degree of Responses
Instruction	2.61	1.16	Approaching Proficient
Planning	2.45	1.21	Approaching Proficient
Information and Communication Technology	2.10	1.31	Developing
Average Mean	2.39	1.23	Developing

The table shows that faculty perceive instruction and planning as approaching proficiency while developing information and communication technology when it comes to teaching and learning. Based on the result, teachers use technology to communicate and collaborate with families about school programs and student learning. Also, doing action research improves classroom practices, using multiple sources of data for reflecting on professional practices, making decisions, and participating in professional development activities. However, teachers need to improve their skills in using technology to support and increase professional productivity, in communicating and collaborating with other educators, and in considering content standards and student technology standards in making the syllabus.

3.2 Students' Perception on the Implementation of Blended Learning Practices

To assess the quality of blended courses, the researchers used the Quality Matters rubric (QM). QM is a diagnostic tool for facilitating continuous improvement of an online course. It will guarantee that the online components of the existing courses promote learner engagement and provide students with the tools, content, and information they need to be successful learners (Crawford, 2012).

Table 5: Summary of Students Perception on the Quality of Online Teaching and Learning in MOLE Classroom, N=167

Indicators	Mean	SD	Description	Interpretation
Course Overview and Introduction	2.60	1.03	Partially meet	Criterion evidence is clear and appropriate for the course, but there is some room for enhancement.
Learning Objectives	2.69	0.99	Partially meet	Criterion evidence is clear and appropriate for the course, but there is some room for enhancement
Assessment and Measurements	2.76	1.03	Partially meet	Criterion evidence is clear and appropriate for the course, but there is some room for enhancement
Instructional Materials	2.63	1.00	Partially m eet	Criterion evidence is clear and appropriate for the course, but there is some room for enhancement
Course Activities and Student Interaction	2.67	1.04	Partially meet	Criterion evidence is clear and appropriate for the course, but

				there is some room for enhancement
Course Technology for teaching and learning	2.68	1.02	Partially meet	Criterion evidence is clear and appropriate for the course, but there is some room for enhancement
Learner support and Resources	2.58	0.95	Partially meet	Criterion evidence is clear and appropriate for the course, but there is some room for enhancement
Accessibility and Usability	2.66	1.01	Partially meet	Criterion evidence is clear and appropriate for the course, but there is some room for enhancement
Average Mean	2.66	1.01	Partially meet	Criterion evidence is clear and appropriate for the course, but there is some room for enhancement

Data shows that standards were partially met. This study agreed with the study of Dewi et al. (2018) that the determinant factor of successful implementation of blended learning is determined by the ability of teachers to master the pedagogical knowledge of designing instructional models. Results suggest that teachers take the initiative and motivate students to use technology, individualize instruction (Arundhathi, 2019), and create an active learning environment for an excellent educational experience in a blended learning modality.

3.3 Students' satisfaction towards blended learning

The figure shows a general perception among the class about their experience in the blended learning setting compared to their preferred practice expectations.

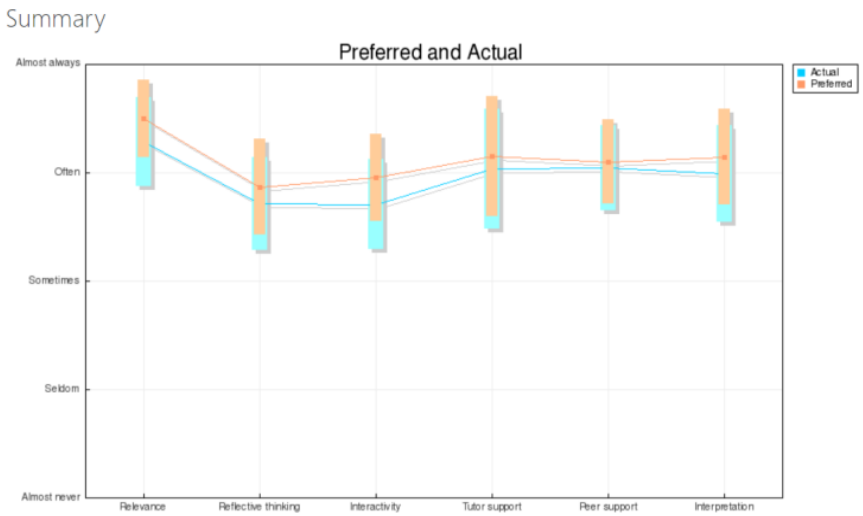

Figure 1. Students' satisfaction towards preferred and actual blended learning experience

The figure shows a general perception among the class that there exist optimum degrees of peer support. It entails a close result of the actual and preferred sensitivity and support provided by fellow students. In the actual practice, though peer support has often appeared, learners still prefer to have a higher level of students encouraging their participation, praising contribution, and valuing their input. Moreover, students' empathy for their struggle to learn had appeared to be higher on the actual practice compared to the learners' expectations. Research shows that a learner's failure and success in a blended learning environment can be attributed to the learners' interaction and relationships from co-learners. Connectedness with peers enables learners' continuity to a blended learning environment as it was able to feel valued, thereby disconnecting them from developing feelings of isolation (Kimtu et al., 2017).

Students generally have indicated high expectations for relevance, tutor support, and interpretation. They preferred their blended learning to be almost always significant and directly related to their professional worldviews and related practices, which they perceive that this occurs very often. The learners prefer BL to focus on new issues, improve their practice, and connect with their practice since, in actuality, they perceive it as essential. Likewise, students' expectations in tutors enabling them to participate in the blended learning class and students and tutor a good sense of communication were firm to be fully realized as it shows that it often occurs in the actual blended learning practice. They prefer teachers to stimulate their thinking, encourage, model the discourse, and model self-reflection. The result also suggests that comprehensible and meaningful communication was firm to be fully realized in the actual blended learning class. The actual practice matches the preferred expectations of learners as they have found that they make a good sense of other students' messages, and other students make a good sense of their messages. However there is a high workstation of teachers making good sense of their messages and students' making a good sense of the teacher's words.

In general, students' preferences for stimulating critical reflective thinking and engaging in a fruitful educative dialogue appeared close to being met; however, they did not prefer to occur often in practice. Students preferred to be often critical in their learning and their ideas. It also appeared that they are sometimes essential for other students as well on their readings. Social interactions in blended learning provided the learners with a means of active communication through communicating freely and being actively involved in a dialogue. Students have a higher preference and often want to explain their ideas to other students. They also prefer other students to tell their views and other students to respond to their opinions; however, they only prefer this not too often.

3.4 Blended Learning Model

This section shows the blended learning model formulated by the researchers. It used the result presented above as the groundwork for bases.

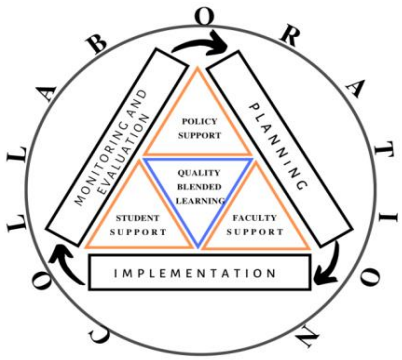

Figure 2 Blended Learning Model

College of Education implementers were provided adequate support on environment and technology. Teachers also perceived blended learning as highly beneficial in their professional development, and their teaching and learning appeared to be developing. However, the quality of online teaching and learning in the MOLE classroom was perceived to be only partially met by the students. It needs improvement and enhancement in the clearness and appropriateness criteria BL course. Moreover, despite positive perceptions, specialists show a majority of incomplete and not applicable ratings on the existing blended learning courses. Learners' engagement in the blended learning environment also shows that learners interact with peers and teachers; however, not often preferred to stimulate critical reflective thinking and engage in a fruitful educative dialogue. This inability to be self-sufficient in being independent learners is one of the vital elements of blended learning. As a result, researchers developed a blended learning model to address these blended learning gaps further.

The learning model plays a significant role in realizing the full potential of blended learning in transforming an academic practice. The application of the learning model is essential when introducing blended learning into higher education. Planners and implementers consider the model for readiness to adopt blended learning and assess its impact before any implementation occurs. It provides a holistic approach to the implementation of blended learning options. It ensures that the blended learning approach's effect is considered during its design rather than as an afterthought after application (Wong et al., 2018). Additionally, the model provides a transparent process in integrating active learning and teaching strategies, meaningful use of resources, and flexible learning experiences to achieve learning outcomes (Alonzo et al., 2015).

The data presented above becomes the groundwork bases in formulating the model. The effectiveness of BL required the existence of policy support, IT infrastructure (Dewi et al., 2017), and the importance of institutional support in course design and planning (Dziuban et al., 2018). In this study, the model has a planning stage that involves policy support and faculty support. Policy support encompasses the rules and procedures to function effectively and ensure that everyone in the college is connected. It includes policy development, content development, and improving infrastructures and guidelines for blended learning. These include developing a technology plan to continuously monitor and update technology in the institute, provision of timely professional development, flexible administrative system, and proactive motivational support (Elameer, 2012). Next is giving and asking for help from implementers. Meier (2015) stated that teachers also need to lead and guide students to acquire knowledge. Thus they must be provided with relevant and continuous professional development focusing on technological, pedagogical, and content knowledge (TPACK). Moreover, this model hopes to enhance faculty's ability to be innovative utilizing interactive learning activities, assignments and facilitating discussions. It is also expected to increase the faculty's opportunities for reflection and ongoing discourse and therefore increase assimilation of the program material.

When an ideal environment is in place, and teachers are trained, teachers can design a practical blended course bearing in mind what to teach. Also, what appropriate medium and most appropriate instructional strategies to use to achieve the objectives, where to get online resources, and the policies and copyright issues to consider (Consolacion, 2018). High engagement and motivation signify a successful learning process (Oliver & Herrington, 2003). Thus, the lecturers need to recognize what it means to be facilitators to foster student engagement through active learning strategies (Alabaikan, 2011). Also, student support must be given to students. It may include training in navigation and technology use, providing online resources, computers, and technical assistance (Consolacion, 2018; Oliver & Herrington, 2003). One category that reflects the main characteristic of the flipped classroom, as discussed by Nedeva et al. (2019), is students learn, think, control, and effectively use their thought processes through collaborative

activities. Ragg and Piers (2017) indicate five factors critical presence domains in enhancing engagement and learner autonomy; social presence, teaching presence, cognitive presence, alliance presence, and competence presence.

Retooling requires pedagogical adjustments to classroom activities to enable observed student skill performance and feedback. Students' support also involves evaluation of the current blended practices as experienced by the learners. Developing the program and enhancing the quality of blended learning requires regular monitoring and assessment of students' feedback (Alebaikan, 2011). Data from students' performance will give light on the quality of blended design, quality of teaching and learning, the effectiveness of the interface, and appropriateness of infrastructure. Continuous monitoring and evaluation should be conducted to analyze and resolve issues and challenges that arise during the BL implementation. The future development of blended learning programs could allow lecturers to benefit from the flexibility of blended learning design and facilitate the enhancement of this learning process (Owston et al. 2006).

Quality blended learning is a product of research implications from different academic staff across various disciplines. This model shows an overarching goal of collaboration from the diverse sectors that make up an educational institution. Overall, cooperation from the different industries that make up an academic institution can provide a high quality of blended learning. Through it, sectors enable their purpose in giving a value of the interaction that influences the quality of the learning experience in Higher Education.

4. Conclusion

According to Schindel, Hughes & Sadowski (2013) in the development and delivery of the blended course, teachers teaching the same specialization must collaborate and work as a team with the help of an IT staff in the development of the blended course (Garrison & Vaugh, 2008; Dziuban, Hartman, Juge, Moskal, & Sorg, 2006; Owston, 2013). With this, the institute must provide a support system by creating a course development committee composed of content experts, an instructional designer who assists with course design, and a media specialist who assists with the technical creation of course materials (D.R. Garrison, H. Kanuka, 2004). Having an effective long-range school technology plan, budget allocation, and multiple sources of funding for technology supports the improvement of e-learning implementation. Also, scheduling of learning technology laboratories is flexibly scheduled to provide access to e-resources and instruction. Infrastructure is adequately supportive of blended learning implementation.

With many other related activities, teachers had no time to use technology to research publications and online educational materials to improve classroom practices or use technology to differentiate instruction for students with special learning needs. Sometimes teachers will not incorporate new teaching strategies because of some technical and pedagogical challenges. These imply that teachers must adjust with new educational tools and equipment to improve learning outcomes and prepare students for the 21st-century workplace. There is a need to educate teachers in effective blended teaching strategies. Moreover, training programs increase professional productivity, help communicate and collaborate with families and other educators, align lesson plans to content standards, student technology standards, use data to reflect on professional practices and decisions, and participate in professional development activities. Teachers must have an extensive range of learning experiences on a blended learning course. It will allow teachers to have firsthand experience and understand the processes and ways of how learning activities are to be implemented in a blended learning environment.

The result implies that there is a need to redesign the existing blended course. A team of experts in pedagogy, technology, strategy, assessment & curriculum must collaborate in redesigning the class to do a specific assignment based on his skills. Likewise, professional development with an emphasis on TPACK is essential for the team. It is a

framework for understanding how to integrate technology into the classroom effectively (Mishra & Koehler, 2006). This training will capacitate teachers to effectively harmonize technology appropriate to the objectives, content, strategy, and assessment.

Blended learning provides ongoing learning opportunities that increase skills, knowledge, and quick change in classroom practice. Nedeva (2019) stated that flipped classrooms guide students who continually improve practice as it provides a variety of diverse instructional options to prepare students in the 21st-century workplace. Moreover, BL also provides the necessary skills and dispositions for the ever-evolving field of education. A study from Kimtu, Zhu, and Kagambe (2017) implies that learners' capacity to work by themselves supported by peers and high levels of interactions using the quality technology led them to construct their ideas in blended learning. Kimtu, Zhu, and Kagambe (2017) noted that peer encouragement assisted learners in computer use and applications that helped them overcome fears in using technology that shows empathy for each other's struggle to learn.

Teacher/Tutor presence does not only address student support through clearing out queries from the learners. A facilitative instructor-learner relationship is critical in developing active/effective delivery of instruction as it involves motivating and identifying with and finding relevance in the learning outcomes (Draper, 2013). Effective facilitation also highlights the importance of effective teaching by providing high-level interaction and supporting students' efforts and needs. It supports Raggs and Piers (2017) idea that through blended learning, a promise of developing interpersonal professional skills is realized. It shows that tutor and students make good sense of the exchanged messages done online and face to face. Learners tend to achieve their appreciation of the content as teachers stimulate thinking strategies that allow the learners to make his or her independent conclusions.

Moreover, as teachers and students are involved in social interaction, the creation of meaning takes over as they negotiate and build knowledge altogether. Students express ideas at the same time, view and listen to different perspectives. As they become actively involved in open communication, they expose themselves to many insights that lead them to process deeper comprehension and control their thoughts (Bouilheres et al., 2020). As learners assume responsibility for their learning, they become more critical in managing their ideas (Meyer et al., 2014). However, in this study, learners are unable to be self-sufficient as they don't appear to be critical and often engage in a fruitful dialogue.

The result suggests a further study in a greater focus on instructional design and policy support in bridging ideas and activities in the online and face to face environment.

Recommendations

The study's findings led to several key recommendations aimed at enhancing blended learning (BL) within the institution. Firstly, it suggests developing a comprehensive faculty guide tailored for BL course design and establishing formal policies that recognize BL as a vital pedagogical approach, providing clear expectations and support for educators. Additionally, it emphasizes the need for professional development programs that respond to ongoing teacher proficiency assessments, linking training directly to course improvement and student needs. To create a supportive online learning environment, the recommendations include fostering online peer communities through structured discussions and collaborative projects, as well as ensuring active instructor presence via announcements and timely feedback. Furthermore, the study highlights the importance of investigating accessible course design for students with disabilities and exploring the impact of technology choices on student experiences and outcomes. Lastly, it calls for a focused analysis of how male and female students perceive and engage with BL environments, contributing to a more inclusive educational approach.

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