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# A Comparative Study on Student Perception between Face-to-face and Blended Learning Mode: A Case of Bangladesh Open University

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**Abstract**

In Bangladesh, teaching and learning have always entailed face-to-face interaction. Throughout COVID-19, however, the online mode of teaching had been adopted as a safe mode. However, many institutions did not fully revert to face-to-face mode, some shifted entirely online, others blended it in (Lukenga et al., 2023), similar with Bangladesh Open University's (BOU) mixed delivery. This study was conducted to understand students' preference between face-to-face and blended modes of learning that emerged during and after COVID-19 period. A quantitative (survey questionnaire) method was applied to this case study. The questionnaire used was adapted from Garrison & Vaughan (2008) and modified to suit the context of this study. Validity and reliability of the questionnaire were performed as the questionnaire was slightly modified. The quantitative questionnaire included closed-ended questions with options and five-point Likert-type questions. Chi-square tests had been done to measure the inclination for blended learning against traditional face-to-face between male and female students and between age groups. This study shows that though the predominant share of the participants generally favored the blended learning mode, they also lack to acquire the overall benefit of this specific medium. Female and male respondents favored blended mode over face-to-face in an equivalent style, however, preference differs across age groups. Respondents aged 20-25 and 26-31 are more likely to prefer blended mode than that of respondent aged 32 and above.

**Keywords:** *Blended Learning (BL), Face-to-face, Student perception, Higher Education Institutions (HEIs), Bangladesh Open University (BOU)*

## Introduction

As the name suggests, "blended learning" combines many teaching methods. In general, this blend refers to an assortment of different learning styles and occasionally classroom content. A teaching-learning strategy called blended learning assemblies in-person instruction with online learning to enhance the learners' educational journey. Blended learning is a popular instrument for managing instructional and cognitive engagement these days.

The blended learning model has drawn a lot of interest from scholars and professionals and has been used by most higher education institutions (HEIs) across the globe to highlight the caliber of instruction and learning in their respective organizations (Graham, 2013). In blended learning environments, the quality of interaction and engagement plays a significant role in shaping students'

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learning experiences. The Community of Inquiry (CoI) framework developed by Garrison et al. (2000) emphasizes the importance of teaching presence, social presence, and cognitive presence in creating effective blended learning environments. Therefore, students' perceptions of blended learning can also be interpreted through these dimensions.

The bachelor's program under one of BOU's schools has adopted blended learning as its mode of delivery. Although, face-to-face classroom generally had remained in practice in BOU's bachelor's program since its beginning. Nevertheless, during the COVID-19 state, the respective honor's program opted for the online mode as an immediate solution for emergencies. The situation was brought under control after a year and a half when the rate of contamination decreased and widespread vaccination campaigns were implemented. A number of HEIs considered replacing some or all of their programs with online instruction due to the simplicity and proficiency of the online learning state (Lukenga et al., 2023). Furthermore, the transition of HEIs to online learning is not limited to the near future; it also encompasses future curricula (Peters et al., 2020; Saichaie, 2020).

Therefore, although the term "blended learning" was initiated in 2000 by Cooney et al. (2000), this method became popular at BOU after the COVID-19 pandemic. Thus, as a safe approach, the bachelor's program introduced blended learning. However, the authority lacks formal insight into students' perspectives on this method. It is, therefore, crucial to understand how students view blended learning in contrast to conventional in-person instruction.

## Literature Review

Various perspective exist on what constitutes blended learning. Scholars have offered a range of definitions for blended learning. While some scholars focus on the integration of teaching methods or communication channel (Orey, 2002; Singh & Reed, 2001), or the blending of various pedagogical strategies (Rossett, 2002), others define it as an amalgamation of online and face-to-face teaching (Reay, 2001; Rooney, 2003; Sands, 2002; Ward & LaBranche, 2003; Young, 2002). In-person classroom time is crucial to blended learning (Dziuban et al., 2004). More integrative definitions emerged later. Graham (2006) conceptualized blended learning as the systematic integration of computer-mediated and face-to-face instruction, while Allen et al. (2007) described it more simply as courses combining online and in-person modalities. Garrison and Vaughan (2008) further advanced this perspective by emphasizing intentionality in blending, highlighting that effectiveness depends not merely on combining modes, but on purposeful instructional design.

Rapid technological advancement has expanded the scope of blended learning definitions, often leading to conceptual ambiguity and overlapping interpretations (Smith & Hill, 2019). For instance, Badawi (2009) extends the concept to include both synchronous and asynchronous interaction between teachers and learners, while Müller and Mildenberger (2021) broaden it further to encompass all technology-supported learning environments, excluding purely face-to-face or fully online formats. This expansion, while inclusive, also blurs definitional boundaries, making comparative research more complex and theoretically less consistent. Although blended learning has been an established instructional approach for over two decades, its use and the resources available to embrace this teaching approach have been growing ever since. According to Watson (2008) and Garrison and Kanuka (2004), blended learning is a significant advancement in education. Even if blended learning has drawbacks and restrictions, research has shown some compelling arguments for why it is becoming more and more acceptable.

From a pedagogical perspective, blended learning is increasingly understood not simply as a delivery format, but as an instructional design approach that reshapes learner experience. Research suggests that its value lies in combining the flexibility of online learning with the social presence of traditional classrooms (Owston et al., 2008; Owston et al., 2013). This hybrid structure is particularly beneficial for non-traditional learners, including those balancing employment and family responsibilities, as it enhances accessibility and autonomy while maintaining opportunities for interaction.

Empirical studies further indicate multiple learning benefits associated with blended learning. It has been linked to higher engagement and productivity in online environments (Ziegler et al., 2006), improved academic performance compared to traditional instruction (Dziuban et al., 2006), and stronger teacher–student interaction (Vaughan, 2007). In addition, reductions in failure and withdrawal rates have been reported (Dziuban et al., 2006; López-Pérez et al., 2011), alongside improvements in student satisfaction and critical thinking skills. However, these positive findings are not universal and often depend on contextual and design-related factors, suggesting that blended learning effectiveness is mediated rather than automatic.

The cost-effectiveness of blended learning has also been widely discussed. Some studies report substantial institutional savings, such as reduced infrastructure and operational costs (Hartman, 2007), and lower delivery costs compared to traditional instruction (Maloney et al., 2015). However, contradictory evidence highlights increased preparation time and technological support requirements, which may offset short-term financial gains (Delgaty, 2013; Cook, 2014). This inconsistency suggests that cost efficiency is highly context-dependent and influenced by institutional capacity and resource availability.

The Community of Inquiry (CoI) framework developed by Garrison, Anderson, and Archer (2000) explains meaningful learning in blended and online environments through three elements: cognitive presence, social presence, and teaching presence. It highlights how learners construct understanding, engage socially, and are guided through instructional design and facilitation. Widely used in blended learning research, the framework offers a comprehensive lens for examining learner engagement and interaction across online and face-to-face settings, and is especially relevant for understanding student experiences in open and distance learning environments.

For blended learning through literature to function, there are four different blending levels: activity level, course level, program level, and institutional level. The degree of the blend is typically driven by the student, instructor, or designer across all levels (Graham, 2006). At the activity level, blending occurs within individual learning tasks; at the course level, it integrates modalities within a single course; at the program level, it is embedded across curricula; and at the institutional level, it becomes part of organizational strategy. However, most empirical studies focus on course-level implementations in conventional universities, with limited attention to open and distance learning systems.

Additionally, Graham (2006) conceptualizes blended learning development through three progressive stages: enabling, enhancing, and transforming blends. While enabling blends primarily add flexibility without altering pedagogy, enhancing blends introduce incremental pedagogical improvements. Transformative blends, however, represent a fundamental shift in knowledge construction, promoting learner autonomy and active knowledge co-construction. Despite its theoretical value, this framework has been underutilized in empirical research, particularly in developing country contexts.

Although blended learning has been widely studied in higher education, the literature remains conceptually diverse, with varying definitions and implementation approaches (Graham, 2006; Smith & Hill, 2019). Research generally reports positive outcomes such as greater flexibility, engagement, and learner satisfaction, though these depend heavily on institutional readiness and instructional design quality (Rasheed et al., 2020; Alammary, 2019). Furthermore, despite the extensive use of the Community of Inquiry (CoI) framework in blended learning research, its application in open and distance learning contexts within developing countries remains limited (Shea et al., 2012; Castellanos-Reyes, 2020). In Bangladesh, existing studies have primarily focused on conventional universities, with limited attention to open and distance learning institutions such as Bangladesh Open University. Therefore, this study addresses this gap by examining students' perceptions of blended and face-to-face learning through the CoI framework.

## Research Objectives

Although, the bachelor's program initially adopted blended learning as a secure approach before acclimating to its benefits, the authorities are not formally aware of the student's perspective. Thus, it's critical to comprehend how pupils view this method in contrast to in-person instruction. This study seeks to find out how students feel about blended learning, what they would recommend, and which method they favor. To assess and improve the learning and instruction progression, a number of researchers have conducted comparison studies between blended and in-person learning. As Garrison and Kanuka (2004) recommend conducting research on the effectiveness of blended learning in promoting analytical thinking and self-assessment.

Blended learning has been the subject of numerous case studies and studies in an attempt to determine its benefits, how well to convert a traditional setting into a blended one, etc. This investigation had not, however, been conducted at BOU. Thus, it is also important to formally comprehend students' opinions.

This study is guided by three research questions:

R1: What are students' impressions on face-to-face learning mode?

R2: What are students' impressions on the Blended-learning mode?

R3: How does an amalgamation of online and offline teaching model contrast to face-to-face teaching?

## Methodology

The study targeted students who had experienced both learning modes, ensuring informed comparison based on direct exposure. A total of 135 respondents participated in the survey. The sample size was considered adequate for exploratory statistical analysis within a single institutional case study (Creswell & Creswell, 2018). Convenience sampling was used due to accessibility constraints and the exploratory nature of the study (Etikan et al., 2016). While probability sampling would have enhanced generalizability, convenience sampling was deemed suitable for this case study context, where the objective was to generate context-specific insights rather than population-wide inference. However, this approach may limit the external validity and generalizability of the findings, which is acknowledged as a limitation.

A quantitative approach was considered appropriate as it enables systematic measurement of perceptions and supports statistical analysis of relationships among variables in educational settings (Creswell & Creswell, 2018). Garrison & Vaughan (2008) provided the questionnaire that the

author employed, with a few minor adjustments made. A 10% students from the program were consulted to guarantee the validity of the questionnaire, and the final version was developed based on their feedback. The questionnaire has a Cronbach's alpha and coefficient reliability of 0.90, a score deemed suitable for the current study. STATA version 14.2 was used to perform all statistical analyses and figures were illustrated using MS Excel 2016.

There are two sections to the questionnaire. The demographic features of the pupils are covered in Part I, whereas Part II comprises of closed-ended questions, some have choices and others with five-point Likert scale. After class, students were asked to complete the questionnaire. Students were given paper copies of the questionnaire to complete. The physical copies were examined and stored in a locked drawer after being received. Respondents took at most 20 minutes to complete the quantitative questionnaire.

### *4.1 Ethics Statement*

Ethical approval for this study was obtained from the relevant institutional authority prior to data collection. All participants were informed about the purpose of the study, the voluntary nature of their participation, and their right to withdraw at any time without any academic or personal consequences. Informed consent was obtained from all respondents before administering the survey. Confidentiality and anonymity were strictly maintained, with no personally identifiable information collected and all responses analyzed in aggregated form. Data were stored securely and used solely for academic research purposes in accordance with established ethical guidelines.

## Findings and Discussions

### *Findings*

There are more female students than male students overall. The employment status of the participants ranged from full-time (48%), part-time (9%), to unemployed (43%). Since BOU does not implement age restrictions in admission process, it deals with a lot of individual with interrupted study gap. Of the total, 52% of the students had interrupted study gap, while the remaining 48% are continuous. In Figure 1, this demographic data is displayed.

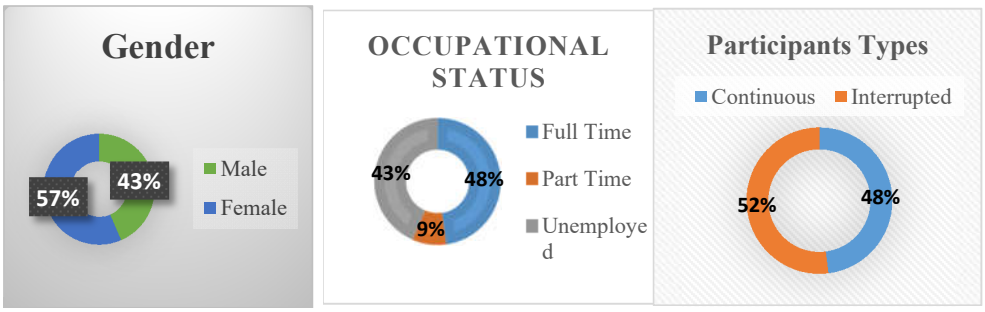


**Figure 1.** Descriptive statistics of participants characteristics

With more than 80% of respondents choosing blended learning over face-to-face learning, blended learning was the most popular choice (Figure 2).

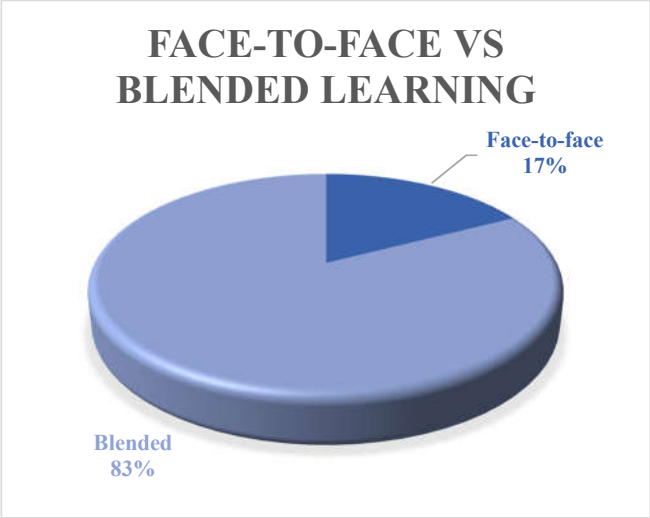


**Figure 2.** Mode of learning predisposition among participants

The "Frequency of interaction with peers" as well as the "Depth of peer interaction" were perceived as similar by the respondents. Furthermore, the experience stands slightly more increased in terms of depth/meaningfulness. Across both (frequency and depth) strictures, a substantial number of participants ponder that both have augmented in blended learning mode yet a notable portion believes otherwise. In frequency of interaction, this percentage is more than 40% and in case of depth of interaction, it is more than 30%.

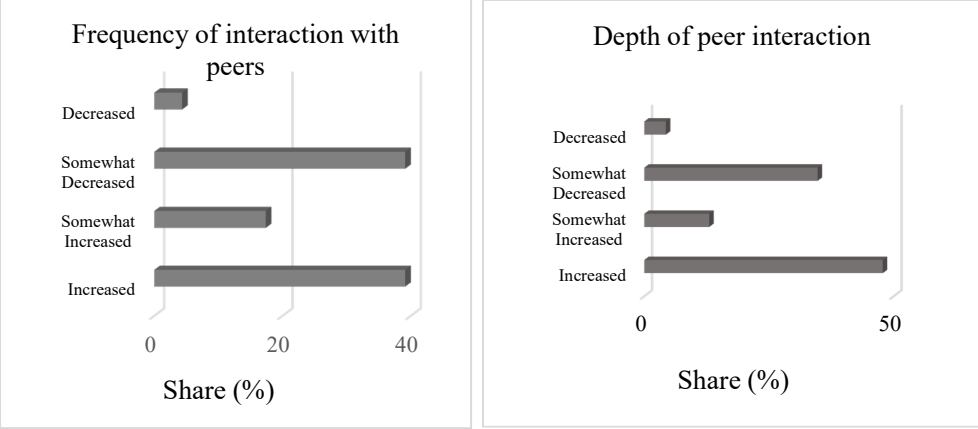


**Figure 3.** Combined frequency and depth/meaningfulness of peer communication

The results of the study that asked contributors about their thoughts as well as opinions regarding organizational strategies are shown in Table 1. In contrast to 22% and 8% who are unsure, 70% of participants assume that blended learning courses are adequately recognized and prospects are explained in the course calendar. All of the program's participants concurred that the university did

not offer enough materials to support blended learning. In light of this, over 80% of respondents said they would be open to a blended learning environment at a later stage.

**Table 1.** Attitudes toward administrative decisions and student learning experiences

| Parameters | Absolutely Agree | | Agree | | Undecided | | Dis Agree | | Absolutely Disagree | |
|---|---|---|---|---|---|---|---|---|---|---|
| | N | % | N | % | N | % | N | % | N | % |
| The course calendar clearly outlines expectations for blended learning courses and adequately identifies them. | 0 | 0 | 272 | 70 | 32 | 8 | 0 | 0 | 87 | 22 |
| Enough resources are available at the university to support blended learning mode. | | | | | | | 340 | 87 | 51 | 13 |
| In the future, if given the chance, I would favor blended learning over traditional teaching methods. | 34 | 8.7 | 289 | 74 | | | 51 | 13 | 17 | 4.3 |

Participants' perceptions of the classroom setting and their level of satisfaction were displayed in Table 2. The majority of blended learning participants felt that the teacher or instructor managed the class time and pace well. Even so, only a small percentage of people disagree. The responses were divided into agreement and disagreement with regard to the statements about their interpersonal connection with the instructor and academic improvement. Of the respondents, 65% felt that communication skills had improved as a result of blended learning, 9% were unsure, and the remaining 26% disagreed. In terms of overall satisfaction, 13% of students absolutely agree and 17% disagree, while over 80% of students are satisfied.

**Table 2.** Attitudes toward the classroom setting and student contentment

| parameters | Absolutely Agree | | Agree | | Undecided | | Dis Agree | | Absolutely Disagree | |
|---|---|---|---|---|---|---|---|---|---|---|
| | N | % | N | % | N | % | N | % | N | % |
| The teacher managed the class time and speed well in blended learning mode. | | | 306 | 78 | | | | | 85 | 22 |
| Participants' ability to communicate with the teacher and other students is improved in blended learning mode. | | | 255 | 65 | 34 | 9 | 102 | 26 | | |
| All things considered, I am happy with this | 51 | 13 | 272 | 70 | | | 68 | 17 | | |

| blended learning approach. |
|---|

The "Frequency of interaction" and "Depth of interaction" observed with the instructor are equivalent based on the respondents with a trivial rise in footings of depth observed. Across the (frequency and depth) constraints, a noteworthy sum of students contemplate that both have amplified in blended learning mode with approximate to 30% thinking else (Figure 4).

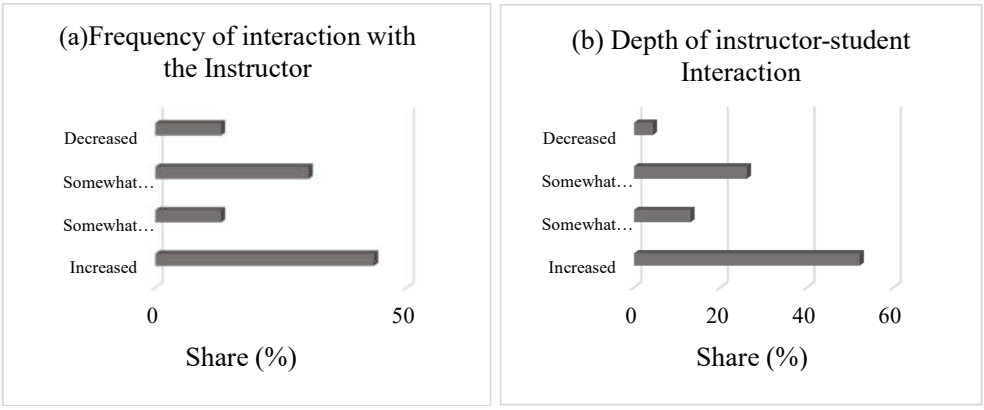


**Figure 4.** Frequency and Depth of student-instructor interaction

Additionally, participants' opinions on the work load are split between those who believe it is light (4%), and those who believe it is as heavy (47%) as before (face-to-face). Nevertheless, based on nearly fifty percent of the participants, the work has grown while amid them, 17 % ponder the work is excessively high (Figure 5(a)).

Besides, the affiliation amongst the two categories of classes in blended learning mode is evaluated. A weighty portion (61 %) of the respondent observe positive association between online and in-class learning and half of them (30%) aserted that they are relevant to each other. While to 35 % of the student, the relation between face-to-face classes and online classes was not clear and , 4 % of them discovered no association (Figure 5(b)).

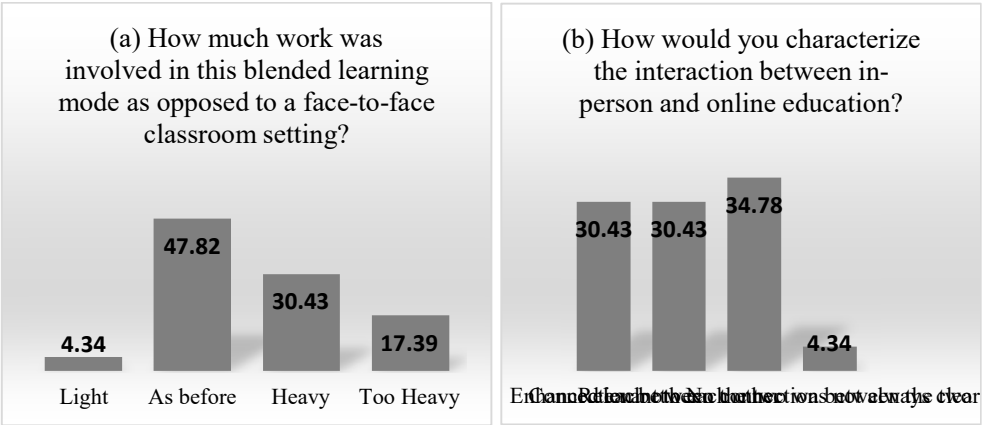

**Figure 5.** (a) Responsibility and; (b): Connection between the two class categories

The chi-square test was used to assess if male and female students, as well as those in three age groups, preferred blended learning over in-person classroom instruction. Gender and fondness do not significantly correlate (Chi-square=.7238, p=.395). Almost equally, male and female students chosen blended learning over traditional (Figure 6(a)).

Although the relationship between age group and learning preference approached statistical significance ($\chi^2$ = 5.6118, p = .060), the pattern suggests that younger students tended to prefer blended learning more strongly than older students. The preferences of the 26–31 and 20–25 age groups follow a similar pattern. The percentages of both groups that were weighted toward blended learning and traditional learning were 90% and 10%, respectively. For those who are 32 years of age or older, the situation is the opposite. While the remaining participants opted for the blended learning approach, over 60% of them preferred traditional instruction (Figure 6(b)).

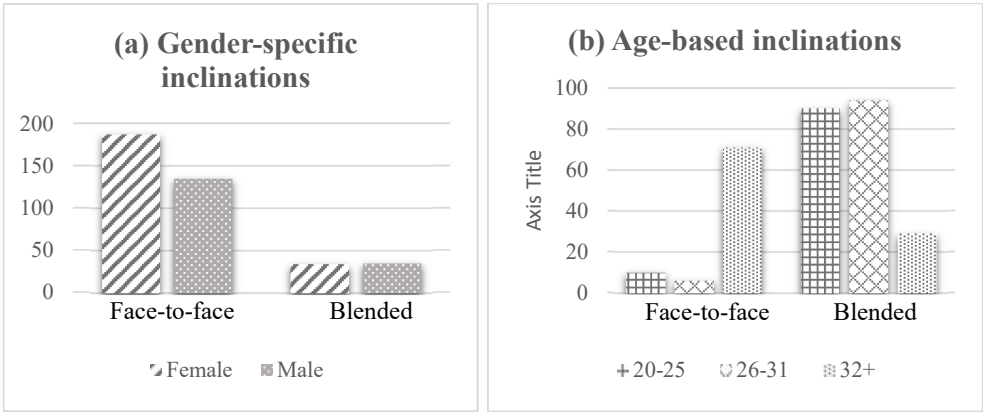


**Figure 6.** (a) Gender-specific inclinations and (b) Age-based inclinations among Face-to-face and Blended Learning mode

## *Discussions*

The findings of this study indicate that students generally hold positive perceptions toward blended learning (BL) compared to traditional face-to-face instruction, despite experiencing several challenges. Students appeared to value the flexibility and accessibility of BL, supporting earlier arguments that blended learning combines the strengths of online and traditional instruction by providing greater control over time, pace, and learning environment (Garrison & Kanuka, 2004; Graham, 2013). This flexibility may be particularly beneficial for students with varying employment statuses and personal responsibilities.

However, the findings also reveal important contradictions. Although many students reported increased interaction with peers and instructors, a considerable proportion remained dissatisfied with the quality of those interactions. According to the Community of Inquiry (CoI) framework, effective blended learning requires the integration of social, teaching, and cognitive presence (Garrison et al., 2000). The findings suggest that while communication opportunities increased, interactions may not have been sufficiently meaningful to support deeper engagement and collaborative learning. This implies that effective blended learning depends not only on interaction

frequency but also on structured instructional design and facilitation (Garrison & Vaughan, 2008; Graham, 2006).

The study further found that students perceived inadequate institutional support and resources for blended learning, reflecting common challenges in developing countries with limited technological and institutional capacity (Graham, 2006; Rasheed et al., 2020). Successful BL implementation requires strong institutional commitment, training, and continuous learner support (Garrison & Kanuka, 2004; Porter et al., 2014). In addition, many students perceived blended learning as increasing workload, consistent with previous studies linking poorly coordinated online and classroom activities to stress and cognitive overload (Alammary et al., 2014; Rasheed et al., 2020). These findings suggest the need for balanced course design, manageable workloads, and clearer integration between online and face-to-face activities.

The findings also indicate that some students struggled to understand the relationship between online and classroom learning components, suggesting insufficient integration between the two modes. Blended learning theory emphasizes that online and face-to-face activities should complement one another to enhance engagement and learning effectiveness.

Finally, demographic findings suggest that gender may not significantly influence attitudes toward blended learning, while younger students appeared more comfortable with BL due to greater digital familiarity. This highlights the importance of providing additional orientation and technical support for older or less technologically experienced learners. Overall, the findings suggest that blended learning has strong potential in higher education, but its success depends heavily on meaningful interaction, instructional quality, institutional support, and effective integration of online and face-to-face learning components.

## Conclusions

Generally, students preferred blended learning to face-to-face learning mode. Mixed feelings were identified observed through various parameters in this study. The outcome of blended mode greatly depends on these feelings. It is observed in this study that a substantial portion of the respondents does not cognize the specific features of blended mode. Studies (Owston et al., 2013) found that academically successful students tend to appreciate blended mode and low-achieving students do not. High achievers also believed that they learned essential course topics more effectively in blended courses than in other face-to-face courses they had completed. They also regarded blended courses to be more expedient and entertaining. Research by Herbert et al. (2017) showed when engaging face-to-face sessions and live-streamed video sessions are complemented students become highly satisfied. Therefore, it is a requirement for this student to recognize and understand the attributes of blended learning so that they can become high-achievers and successful in learning.

Our pupils are accustomed to the conventional educational system. Many students find that conventional in-person instruction is the most comfortable and familiar. Because of this, it took them a while to adjust to this particular setting in their initial introduction to the blended learning style. They began to see the potential of the blended program after completing a mid-session. We deal with a mixed generation, which may be another factor. Most people believe that older folks are not tech-savvy. They feel powerless learning in a different way without the resources of the organization. Students' feelings about not having access to administrative facilities are deeply reflected in this study, so it is understandable that they were disappointed.

As a result, authority had to foster and often consider the students' maturity and proficiency with blended learning as well as the administrative team's promptness. Additionally, for the blended

learning mode to function, the following are required : teachers' enthusiasm, institutional support, adequate technological infrastructure, readiness of communication and feedback infrastructure (Tabor, 2007).

## Recommendations

In order for students to become engaged and communicative apprentices, Dziuban et al. (2004) suggested a number of actions, starting with a move from lecture to student-focused instruction. Increased conversation between students and their teachers, between students and outside resources, content, and instructors, as well as an integrated assessment system that incorporates formative and summative evaluations for both teachers and students, should all be part of this evolution. According to Dziuban et al. (2004), institutions should acknowledge and publish their successful implementations and strategies so that others can use them. Additionally, these tactics require further review on a consistent interval (Sharpe et al., 2006). Similarly, Vaughan (2007) recommended ongoing occupational advancement for blended learning instructors.

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