Blended Learning Environments and Student Satisfaction at Kyambogo University

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Abstract

Student satisfaction (SS) is vital for a positive learning environment, fostering academic success, personal development, and overall well-being. It significantly contributes to long-term success and fulfilment in both chosen careers and beyond. In this study, we focussed our investigation on Kyambogo University (KyU), exploring the influence of a blended learning environment (BLE) on SS, specifically examining the influence of collaboration with peers and learner-centred instructional approaches in BLE. This study was conducted through the theoretical lens of the Community of Inquiry framework by Garrison et al. (2000). The study employed a correlational design with a quantitative approach. Self-administered questionnaires were used to collect data from 619 second-, third-, and fourth-year students. Data analysis utilised descriptive statistics and partial least squares structural equation modelling in SPSS 20 and Smart PLS 4. The findings suggest that students at Kyambogo University express uncertainty regarding collaboration and learner-centred approaches, alongside mixed feelings about their overall satisfaction. However, the study revealed that collaboration and learner-centred instruction had a positive and significant influence on SS, with the BLE contributing substantially (32.23%, adjusted $R^2 = 0.323$) to overall satisfaction. We recommend that KyU prioritises and enhances collaborative learning strategies and learner-centred instructional approaches within its BLE, with the aim to significantly improve SS and overall educational outcomes.

Keywords: *Blended learning; Collaborative learning; Learner-centred instruction; Student satisfaction.*

Introduction

Student satisfaction, defined as the positive perception of students regarding their educational experiences, encompasses various aspects such as academics, faculty interactions, facilities, and overall campus environment (Than & Khaing, 2020). It reflects the alignment between students' expectations and their actual experiences (Abu Rashed et al., 2017). Satisfied students are more engaged and active learners, leading to better academic performance and graduation rates (Abu Rashed et al., 2017; Nastasic et al., 2019; Than & Khaing, 2020). Additionally, improved learning outcomes and knowledge retention are linked to student satisfaction (Al-Sheeb et al., 2018).

The evolution of research on student satisfaction in the late 20th century prompted universities to evaluate and enhance student experiences, emphasising the alignment of expectations with experiences (Abu Rashed et al., 2017; Elliott & Shin, 2002). The field progressed by incorporating sophisticated methodologies like SERVQUAL, tailored for educational settings, and expanded its focus to include student performance and satisfaction in the context of online and blended learning (Zeqiri et al., 2021). Noteworthy meta-analyses, like the comprehensive study conducted by Li et al. (2022), consisting of 106 studies, underscore the positive impact of blended learning on student performance while pinpointing gaps in the existing literature. For instance, Li et al. criticised the reviewed studies for their diverse geographical origins, highlighting a lack of emphasis on individual institutional contexts and underscoring the

necessity for a deeper understanding of the efficacy of blended instruction within these unique settings. Furthermore, while Li et al. scrutinised the effects of blended instruction on student performance, its influence on student satisfaction remains relatively underexplored.

In the context of Kyambogo University, understanding and addressing student satisfaction is crucial for improvement, catering to evolving needs, and enhancing the learning experience. As Kyoshaba et al. (2022) note, satisfied students significantly contribute to the university's reputation, competitive edge, and long-term success. However, studies by Kasule and Bisaso (2016) and Nampomba (2022) suggest widespread dissatisfaction among Kyambogo University students, indicating the university may not be meeting expectations in areas like teaching quality, administrative support, facilities, and the overall experience. Ssenkaaba (2016) further highlights specific concerns with Kyambogo University premises, study arrangements, student welfare, and administrative efficiency. In this context, investigating the factors within Kyambogo University's blended learning environment that significantly influence student satisfaction becomes crucial for understanding and addressing their needs. This research aims to test the following hypotheses:

1. Collaboration with peers has a significant influence on student satisfaction at Kyambogo University.
2. Learner-centred instructional approaches have a significant influence on student satisfaction at Kyambogo University.

Theoretical Underpinning

This study is guided by the Community of Inquiry theoretical framework (CoI) developed by Garrison, Anderson, and Archer (2000). This framework posits that a successful learning experience hinges on three key presences: social presence (interaction, communication, shared understanding), cognitive presence (critical thinking, problem-solving, metacognition), and teaching presence (instructor support, guidance, facilitation). In the context of our study, the focus on social presence aligns with our first hypothesis that collaboration with peers has a significant influence on student satisfaction in blended learning environments. Collaborative activities and tools (e.g. online forums, group projects) foster interaction, communication, and a sense of community, all contributing to a richer social learning experience and potentially higher student satisfaction (Sorden, & Ramírez-Romero, 2012). According to Sorden and Ramírez-Romero, collaborative learning within the CoI framework has been shown to positively impact student engagement, critical thinking, and overall satisfaction, particularly in blended learning environments

Similarly, the emphasis of the CoI framework on cognitive presence supports our second hypothesis about the positive impact of learner-centred instructional approaches. By employing these approaches, such as problem-based learning or simulations, instructors can encourage active participation, critical thinking, and self-directed learning, leading to deeper understanding and increased cognitive presence, which can ultimately enhance student satisfaction (Armah et al., 2023; Garrison & Cleveland-Innes, 2005). Studies (e.g. Dinh et al., 2021; Hessein et al., 2021; Katsarou & Chatzipanagiotou, 2021; Zeqiri et al., 2021) have shown that learner-centred approaches within blended learning environments can promote student satisfaction.

The adaptability of the CoI framework and its focus on diverse dimensions of the learning environment make it a valuable tool for our study. It allows us to investigate the interplay between specific aspects of blended learning (collaboration, instructional approaches) and student satisfaction within the context of social, cognitive, and teaching presences. By utilising this framework, we gain a deeper understanding of how to design and implement effective blended learning experiences that promote collaboration, active learning and, ultimately, increased student satisfaction (Garrison et al., 2000).

Related Literature

Collaboration with peers and student satisfaction

Research examining the nexus of collaboration with peers and student satisfaction has been conducted. For instance, Ku et al. (2013) conducted a study on online courses incorporating collaborative learning elements, analysing data from 197 graduate students over three academic years. Through a survey-

based approach, they explored various factors related to online collaboration and their relationship with satisfaction levels. Their findings indicated significant correlations between various collaboration factors, such as team dynamics, team acquaintance, and instructor support and teamwork satisfaction. While Ku et al. predominantly focused on graduate students, it is important to assess the transferability of their conclusions to undergraduate students and other diverse student populations. This study seeks to bridge this gap by incorporating a heterogeneous sample of students, aiming to offer a more comprehensive understanding of how collaboration influences satisfaction across various educational settings and demographic profiles.

In their study, Wengrowicz et al. (2018) investigated the realm of student satisfaction within case-based online courses, surveying a cohort of 698 students. Employing structural equation modelling alongside logistic regression, they identified the key determinants shaping satisfaction levels. Their findings underscored the roles of interaction and mutual comprehension between students and instructors, as well as the influence of students' pre-existing attitudes towards interactive group learning. However, certain limitations temper the breadth of their conclusions, notably the exclusive focus on MBA courses. To bolster the generalisability of their findings, future research should encompass a diverse array of educational programmes. By broadening the scope of investigation to encompass various academic disciplines, researchers can glean deeper insights into the factors driving student satisfaction across a spectrum of educational contexts.

In their pursuit to comprehend the influence of blended instruction on student learning and performance, Li et al. (2022) undertook an extensive meta-analysis encompassing 106 studies. Their research elucidated a positive impact of blended learning instruction on student performance, particularly highlighting its advantages among junior and senior secondary school students. Additionally, Li et al. underscored the efficacy of group study in enhancing student learning, advocating for collaborative engagement rather than individual study. Despite these significant contributions, Li et al. (2022) critiqued the prevailing focus of existing literature on investigations primarily conducted in developed countries. Recognising this gap, the present study was conducted in Uganda, a developing country, with the aim of fostering a more inclusive comprehension of blended learning impacts. Furthermore, the shift in context from secondary schools to higher learning institutions in the present study offers specific insights pertinent to the higher education setting.

Building on this foundation, Yu et al. (2022) conducted a meta-analysis of 30 studies to delve into the outcomes and student attitudes associated with a blended learning environment. Their findings bolster the argument for blended learning as an effective educational approach, revealing significantly higher outcomes compared to traditional learning. Moreover, learners exhibited more positive attitudes towards blended learning, emphasising the potential for enhanced student satisfaction. However, Yu et al. (2022) acknowledged limitations in the scope and methodologies of the reviewed studies, highlighting the need for further research. Aligning with the theme of collaboration, future investigations could explore advanced technologies to enhance blended learning effectiveness.

Cheng et al. (2023) employed a mixed-methods approach to investigate the factors influencing students' cognitive load and satisfaction within online collaborative learning environments during the COVID-19 pandemic. Their study comprised qualitative interviews and quantitative surveys to explore these phenomena comprehensively. The qualitative segment delved into the antecedents of cognitive load and satisfaction, while the quantitative study tested hypotheses and provided empirical evidence using partial least squares structural equation modelling. The findings revealed the psychological and cognitive factors contributing to cognitive load and its detrimental effect on satisfaction. These findings have significant implications for understanding how collaboration dynamics impact students' overall satisfaction with the learning process. Effective collaboration with peers can indeed enhance student satisfaction, but it necessitates careful management of cognitive load and consideration of contextual factors shaping collaborative interactions. Building upon the findings provided by Cheng et al. this study aims to address a critical gap in the literature by investigating the specific influence of collaboration with peers on student satisfaction within the context of Kyambogo University. While previous research has

explored general factors influencing cognitive load and satisfaction, there remains a need to understand how collaboration dynamics impact satisfaction among students in a specific institutional setting.

In conclusion, while research has shed light on the correlations between collaboration with peers and student satisfaction, significant gaps remain. Existing studies often concentrate on specific student demographics or educational contexts, calling for further research to encompass a broader spectrum of demographics and educational programmes to achieve a more comprehensive understanding. Furthermore, although positive effects of blended learning environments on student performance and attitudes have been demonstrated, there is a dearth of research exploring the potential of advanced technologies and innovative teaching methods to optimise these environments. Moreover, recent research emphasises the significance of managing cognitive load effectively and considering contextual factors within collaborative learning environments. Consequently, future studies should focus on customising collaborative learning experiences to suit the unique institutional settings, including institutions like Kyambogo University. By addressing these research gaps, this study can contribute to the enhancement of collaborative learning environments and the promotion of student satisfaction across diverse student populations in higher education.

Learner-centred instructional approaches and student satisfaction

Previous research has explored learner-centred instructional approaches and their connection to student satisfaction. For example, Wright (2011) conducted a comparative analysis of teacher-centred and student-centred college teaching methods. While the study underscored the effectiveness of learner-centred classrooms in cultivating positive learning environments, it did not extensively examine their influence on students' satisfaction with their learning experiences. Therefore, additional research is warranted to investigate the correlation between learner-centred approaches and student satisfaction across various educational contexts. This study seeks to examine particular aspects of learner-centred instruction that contribute to satisfaction, thereby enhancing our understanding of effective pedagogical strategies.

Dinh et al. (2021) conducted a study to explore the impact of social environment and cognitive factors on student satisfaction, aligning with the broader theme of learner-centred instructional approaches and their influence on student satisfaction. Through a questionnaire administered to 345 students, the researchers identified a significant correlation between social environment, cognitive factors, and student satisfaction. These findings suggest that learner-centred instructional strategies, which prioritise social interaction and cognitive engagement, may contribute positively to student satisfaction within educational settings. However, the study's methodology was limited primarily to correlation analysis, indicating a gap in the depth of analysis. Dinh et al. acknowledged this limitation, highlighting the necessity for more advanced analytical techniques, such as regression and path analysis, to provide a comprehensive understanding of the relationship between learner-centred instructional approaches and student satisfaction. By addressing this gap, future research endeavours can strengthen the validity and robustness of findings, thereby enhancing our understanding of the dynamics underlying the interaction between instructional methodologies and student satisfaction in educational settings.

Hussein et al. (2021) undertook a study to investigate the determinants of student satisfaction in a blended learning environment, corresponding with the theme of learner-centred instructional approaches and their influence on student satisfaction. Focusing on undergraduate students at a private university in Saudi Arabia, they collected survey data from 221 participants and utilised structural equation modelling with partial least squares for analysis. The findings revealed that students exhibited satisfaction with the incorporation of face-to-face and videoconferencing sessions, as well as with the guidance and assistance offered by instructors. These results suggest a positive relationship between learner-centred instructional approaches, characterised by interactive and supportive teaching methods, and student satisfaction within the blended learning environment. However, Hussein et al. identified limitations in their study, notably its restriction to the six Saudi branches of the Arab Open University, which constrained the generalisability of findings to other university contexts. This highlighted the need for broader external validity of the results.

To address these gaps, the current study was conducted in a university in Uganda, offering a different context and thereby enhancing the generalisability of outcomes to diverse educational settings.

Katsarou and Chatzipanagiotou (2021) conducted a review of 22 empirical studies focused on learner-centred interaction within online learning environments. The findings highlighted the importance of learner-centred instructional approaches, emphasising interactions between learners and instructors, as well as among learners themselves, in fostering student satisfaction and success in online learning environments. They emphasised the significance of designing instructional strategies that prioritise meaningful interactions and engagement to enhance the learning experience and promote student satisfaction. Furthermore, Katsarou and Chatzipanagiotou recommended that further research utilise robust methodologies and assessment tools tailored to the unique characteristics of online learning environments to deepen the understanding of the relationship between learner-centred approaches and student satisfaction.

Zeqiri et al. (2021) aimed to explore the relationship between learner-centred instructional approaches, specifically blended learning, and student satisfaction. Their study focused on 319 students at the South East European University, collecting data through questionnaires and employing multiple regression analysis for analysis. The findings indicated a significant impact of blended learning on students' satisfaction, highlighting the potential of learner-centred approaches in enhancing educational outcomes. However, the authors acknowledged a methodological limitation related to the small sample size used in the study. They emphasised the importance of future research with larger sample sizes to improve the generalisability of findings. This underscores the need for continued investigation into the effects of blended learning environments on student satisfaction, ultimately contributing to a deeper understanding of learner-centred instructional approaches and their impact on educational outcomes.

In conclusion, the reviewed studies collectively underscore the importance of learner-centred instructional approaches in fostering student satisfaction across various educational contexts. While existing research provides valuable insights into the positive influence of learner-centred practices on enhancing learning environments and improving student satisfaction, several gaps and areas for further investigation remain. These include the need for more in-depth analyses utilising advanced analytical techniques, broader research encompassing diverse educational settings, and comprehensive studies tailored to online learning environments. Moreover, addressing methodological limitations, such as small sample sizes and context specificity, is crucial to enhancing the generalisability and validity of findings. By addressing these gaps, this research can contribute to a deeper understanding of the relationship between learner-centred approaches and student satisfaction, ultimately informing the development of effective pedagogical practices aimed at promoting positive learning outcomes.

Methodology

Research approach and design

This study adopted a quantitative approach, employing statistical methods to measure and analyse variables related to the association between the blended learning environment and student satisfaction at Kyambogo University. Choosing a quantitative approach allowed for precise measurement, statistical data analysis, and identification of potential relationships between variables (Mohajan, 2020; Asenahabi, 2019). A correlational design was employed to explore these potential relationships, enabling us to quantify the strength and direction of any associations between the blended learning environment and student satisfaction.

Population and sample

The target population comprised second, third, and fourth-year students (total 9,402) from two academic units: The Faculty of Arts and Humanities (3,871 students) representing the humanities and social sciences, and the School of Management and Entrepreneurship (5,531 students) representing applied sciences and professional studies. This selection aimed to include students who had sufficient time to adjust to university life, utilise resources, and experience the university's blended learning environment, particularly since its prominence after the COVID-19 pandemic. A sample of 703 (346 from Faculty of Arts and 357 from

School of Management) was chosen using Krejcie and Morgan's (1970) table. However, data was ultimately collected from 619 participants (304 from Faculty of Arts and 315 from School of Management) using a simple random sampling technique.

Instrument

For data collection, we employed a self-administered questionnaire integrating established instruments previously utilised by other researchers. This study focused on two principal variables: student satisfaction and the blended learning environment. Student satisfaction was gauged through perceptions of the university environment, instructors, programme quality, and student services (Mokhethi et al., 2019). The blended learning environment was operationalised by evaluating collaboration with peers (Mugizi & Rwothumio, 2022) and learner-centred instruction (Matheos et al., 2005) implemented by academic staff. To ensure the validity of the instrument, validity tests were conducted, including heterotrait-monotrait (HTMT) discriminant validity and factor analysis using structural equation modelling. The reliability of the instrument was determined using composite reliability (CR) and Cronbach's alpha (α), with results presented in Tables 1 and 2.

Table 1: Average Variance Extracted (AVE) and heterotrait-monotrait ratio correlations (HTMT)

Measures	AVE	SS	ASS	PF	UEA
SS					
ASS	0.652	0.513			
PF	0.808	0.831	0.843		
UEA	0.682	0.607	0.691	0.878	
Measures	AVE	BE	LC	PC	
BE	0.679				
LC	0.839	0.886			
PC	0.679	0.893	0.720		

Note: SS = Student Satisfaction, ASS = Administrative Student Services, PF = Programme Factors, UEA = University Environment and Attractiveness, BE =Blended Learning Environment, LC = Learner-centred Instruction, PE = Peer Collaboration.

The test results in Table 1 show that the HTMT ratio of the correlations condition was fulfilled because all values did not exceed 0.90 (Henseler et al., 2015). Therefore, the measures were discriminately valid. Further, convergent validity, which assesses the degree to which items within a construct measure the same underlying concept, was also established. The Average Variance Extracted (AVE) values in our study exceed the commonly accepted benchmark of 0.5 (Alarcon et al., 2015). This suggests that a majority of the variance in the items is explained by their respective constructs. To further confirm the distinctiveness of the constructs, we conducted a factor analysis on the indicators of different constructs using structural equation modelling (Figure 1). All factor loadings are above 0.50, which Hair et al. (2020) consider an acceptable threshold for valid construct measures.

In this study, we assessed the internal consistency of the measurement tool using composite reliability (CR) and Cronbach's alpha (α). The results of these analyses are presented in Table 2.

Table 2: Reliability for study constructs

Student Satisfaction	α	CR	VIF
Administrative Services	0.733	0.849	1.309
Programme Factor	0.762	0.894	1.447
University Environment and Attractiveness	0.767	0.865	1.560
Blended Learning Environment			
Learner-centred	0.762	0.864	1.469
Peer Collaboration	0.808	0.912	1.469

The findings presented in Table 2 indicate that all reliability values for the various constructs exceeded 0.7, signifying a satisfactory level of reliability for the items used to measure students' satisfaction and blended learning environment constructs (Lai, 2021).

Data analysis methods

After collecting data through self-administered questionnaires, we employed both descriptive and inferential statistics for analysis. For descriptive analysis, frequencies, percentages, medians, and means were calculated using IBM SPSS version 20. For inferential analysis, we utilised SmartPLS, which models relationships between variables through path analysis (Hair Jr et al., 2017).

Specifically, we employed structural equation modelling (SEM) to test the interrelationships among the study variables, which encompassed our hypotheses. Hypothesis one proposed a significant impact of collaboration with peers on student satisfaction, while hypothesis two posited a noteworthy influence of learner-centred instructional approaches on student satisfaction. This hypothesis was further tested through path analysis.

Findings

Student satisfaction

In this study, student satisfaction was evaluated across multiple dimensions, including university environment and attractiveness, instructor factor, programme factor, and administrative services. Respondents provided ratings using a five-point Likert scale, ranging from 1 ("strongly disagree") to 5 ("strongly agree"). The average scores for each construct were 2.75, 2.87, and 2.86 respectively, indicating students were somewhat undecided about their overall satisfaction as respondents reported an average score close to 3 for each category. The overall average satisfaction index, calculated by averaging the scores across all constructs, yielded a mean of 2.83. This value, nearing the neutral point of 3, suggests that respondents expressed uncertainty regarding their satisfaction levels.

Description of blended learning environment

This study assessed the blended learning environment, focusing on collaboration with peers and learner-centred instruction. Each construct was evaluated using a five-point Likert scale. The mean score for collaboration with peers was 3.0, suggesting uncertainty among respondents in this aspect. Similarly, learner-centred instruction received an overall mean of 3.23, indicating uncertainty regarding its implementation. The composite average of the blended learning environment, derived from averaging scores across both constructs, yielded a mean of 3.10. This value, approaching the neutral score of 3, implies respondents' doubt towards the overall blended learning environment.

Testing the hypotheses

In our study, we utilised SmartPLS to conduct SEM and test two hypotheses (H1 and H2). Hypothesis one posited that collaboration with peers significantly influences student satisfaction, while hypothesis two suggested a significant influence of learner-centred instructional approaches on student satisfaction. Our analysis focused on exploring the components of the blended learning environment, including collaboration with peers and learner-centred instructional approaches, in relation to student satisfaction. The SEM allowed us to examine the relationships between these variables, as illustrated in Figure 1, the structural model, which depicts the influence of the blended learning environment on student satisfaction.

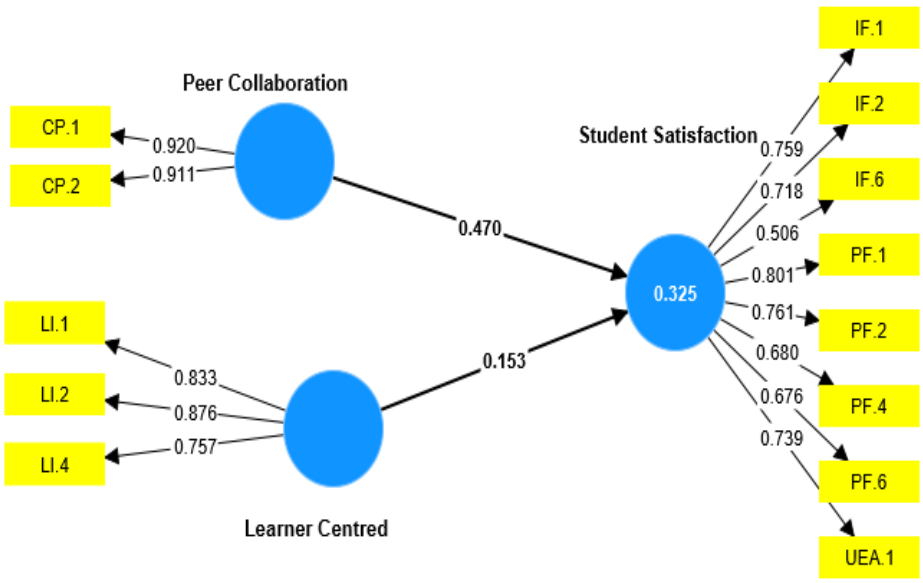

Figure 1: Blended learning environment and student satisfaction

The results depicted in Figure 1 demonstrate that the blended learning environment (comprising collaboration with peers and learner-centred instruction) significantly correlates with student satisfaction. For a detailed overview of the influence of the blended learning environment on student satisfaction, refer to Table 3 for path coefficients.

Table 3: Structural path model for blended learning environment and student satisfaction

Structural Path	β	Mean	STD	T	P
Peer Collaboration Student Satisfaction	0.470	0.471	0.038	12.232	0.000
Learner-centred Student Satisfaction	0.153	0.155	0.044	3.463	0.001
$R^2 = 0.325$					
Adjusted $R^2 = 0.323$					

The results presented in Table 3 examined the hypotheses concerning the influence of collaboration with peers and learner-centred instruction on student satisfaction (H1 and H2). Our findings indicated that both collaboration with peers ($\beta = 0.470$, $t = 12.232$, $p = 0.000$) and learner-centred instruction ($\beta = 0.153$, $t = 3.463$, $p = 0.001$) exerted a positive and significant impact on student satisfaction. The path model revealed that the combined effect of collaboration with peers and learner-centred instruction contributed to 32.5% (0.325) of student satisfaction. The adjusted R^2 (0.323) suggested the significant factors, namely collaboration with peers and learner-centred instruction, contributed 32.5% to student satisfaction. However, it is important to note that approximately 67.5% of the variation in student satisfaction was attributed to other factors not considered in this model. Given the positive and significant relationship observed between collaboration with peers and learner-centred instruction, our hypotheses were accepted. Consequently, there is a compelling case for adopting a blended learning environment at Kyambogo University.

Discussion

The first hypothesis (H1) aimed to assess the influence of collaboration with peers on student satisfaction at Kyambogo University. Our findings revealed a significant positive relationship between collaboration with peers and student satisfaction, a result that is supported by existing literature and theoretical framework. Drawing from the Community of Inquiry theoretical framework (CoI), which emphasises the role of social presence in facilitating meaningful learning experiences, our study aligns with previous research highlighting the importance of collaboration in fostering interaction, communication, and a sense of community among students (Garrison, Anderson, & Archer, 2000). Studies by Ku et al. (2013)

and Wengrowicz et al. (2018) further corroborate our findings, demonstrating positive correlations between collaborative learning activities and student satisfaction levels. Additionally, the CoI framework suggests that collaborative interactions contribute to the creation of a supportive and engaging learning environment, ultimately enhancing student satisfaction (Sorden, & Ramírez-Romero, 2012). Through the adoption of collaborative learning strategies, such as online forums and group projects, educators can promote active engagement and peer interaction, leading to improved satisfaction levels among students. Thus, our study provides empirical evidence supporting the notion that collaboration with peers significantly influences student satisfaction in blended learning environments, underscoring the importance of fostering collaborative learning experiences to enhance student outcomes and satisfaction.

The second hypothesis (H2) postulated that learner-centred instructional approaches have a significant influence on student satisfaction at Kyambogo University. Our findings revealed a significant positive relationship between learner-centred instructional approaches and student satisfaction. These findings not only validate the theoretical underpinnings of the Community of Inquiry (CoI) framework but also closely align with existing literature highlighting the positive impact of learner-centred instructional approaches on student satisfaction. Rooted in the CoI framework, which emphasises social, cognitive, and teaching presences in successful learning experiences, our results provide empirical evidence supporting the hypothesis that learner-centred instructional methods significantly impact student satisfaction. This resonance with previous research, exemplified by studies conducted by Wright (2011), Dinh et al. (2021), and Hussein et al. (2021), underscores the effectiveness of learner-centred practices in fostering positive learning environments and promoting student satisfaction. Our study contributes uniquely to the existing body of literature by delving into specific components of learner-centred instruction within the distinctive context of Kyambogo University. Furthermore, our findings emphasise the importance of designing instructional strategies that prioritise meaningful interactions, engagement, and active participation to enrich the learning experience and bolster student satisfaction, in line with recommendations by Katsarou and Chatzipanagiotou (2021). While our study offers valuable insights into the relationship between learner-centred approaches and student satisfaction, it also signals the necessity for further research to address methodological limitations and broaden the scope of investigation to encompass diverse educational settings and online learning environments. Such endeavours are crucial for the development of effective pedagogical practices aimed at enhancing learning outcomes and promoting student satisfaction comprehensively.

Conclusions

Based on our findings and corresponding discussions, it can be concluded that both collaboration with peers and learner-centred instructional approaches significantly influence student satisfaction at Kyambogo University. The positive relationship between collaboration with peers and student satisfaction underscores the importance of fostering collaborative learning experiences, promoting interaction, communication, and a supportive learning environment. Similarly, the significant positive association between learner-centred instructional approaches and student satisfaction validates the effectiveness of these methods in promoting active engagement, meaningful interactions, and positive learning outcomes. Furthermore, our study underscores the importance of blended learning environments to optimise student satisfaction. By integrating collaborative activities and learner-centred instructional approaches into blended learning pedagogies, educators at Kyambogo University can create dynamic and engaging learning experiences that cater to diverse student needs and preferences. This holistic approach not only enhances student satisfaction but also fosters a deeper understanding of course materials and promotes lifelong learning skills essential for success in the modern world.

Recommendations

Based on our conclusions, it is recommended that Kyambogo University adopt a multifaceted approach to enhance student satisfaction. Firstly, fostering collaborative learning experiences should be prioritised, encouraging interaction, communication, and a supportive environment among peers. Implementing collaborative activities, such as online forums and group projects, can facilitate this process effectively. Secondly, integrating learner-centred instructional approaches into blended learning pedagogies is crucial.

Educators should design courses that promote active engagement, meaningful interactions, and critical thinking, aligning with students' individual learning needs and preferences. Moreover, blended learning environments offer a promising avenue to optimise student satisfaction. By combining traditional face-to-face instruction with online resources and activities, educators can create dynamic and personalised learning experiences that resonate with students. Embracing this holistic approach not only enhances student satisfaction but also fosters deeper understanding and lifelong learning skills essential for success in today's rapidly evolving world.

Limitations of the Study and Areas for Further Research

The study offers valuable insights into the influence of collaboration with peers and learner-centred instructional approaches on student satisfaction within the context of higher education. Despite its contributions, the study faces limitations, including challenges in generalising findings beyond the specific institution studied, potential biases inherent in self-reported data, the cross-sectional nature of the design limiting causal inferences, and potential shortcomings in capturing the complexity of constructs through the questionnaire. To address these limitations and expand knowledge in this area, future research could adopt longitudinal designs to assess long-term effects, conduct comparative studies across different educational settings, incorporate qualitative methods for deeper insights, and explore mediating and moderating variables. By addressing these gaps, researchers can contribute to a more comprehensive understanding of the factors influencing student satisfaction and the effectiveness of blended learning environments in promoting positive learning outcomes.

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