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Perceptions of Students Regarding the Use of Blackboard in an Extended Curriculum Programme for Teaching and Learning: A Social Realist Case Study at a Rural University in the Eastern Cape Province

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Abstract

In today's digital age, the importance of technology integration in educational systems has increased, with blackboard being one of the learning management systems used. Blackboard plays a vital role in teaching and learning for skill acquisition worldwide. The aim of this study is to ascertain the perceptions of extended curriculum programs students on the use of blackboard for teaching and learning. Therefore, the methodology adopted qualitative approach which involved interviewing Extended Curriculum Program students who are in their final year under the ECP. The study further involved 2 focus groups, 12 final year students from Alice campus and 12 final year students from East London campus, making it a sample population of 24 ECP final year students for data collection. However, the data collected was analyzed using thematic analysis with NVivo software. The results generated are challenges, general experiences, group collaboration, support and resource tools and technical issues which align with the institutional goals in pursuing high quality and innovative teaching and learning. The study findings indicate that ECP students perceive blackboard as a very important tool for teaching and learning as it offers flexibility, collaboration features and is easily accessible. However, they also highlighted technical issues, lack of engagement, not easy to use and inadequate training as challenges associated with the use of Blackboard and they suggested that there is need to improve strategies to foster inclusivity and participation. The relevance of this study was to have Extended Curriculum Program students' opinion on the usability and effectiveness of Blackboard support for teaching and learning.

Keywords: Students, Perceptions, Challenges, Blackboard, Extended Curriculum Programme and Learning management System

Introduction

The use of technology in education has grown in popularity in the current digital era, with learning management systems (LMS) like Blackboard being essential to the facilitation of teaching and learning activities Al-Khresheh (2021). A variety of tools and services are available on Blackboard, a platform that is widely used in educational institutions across the globe to improve collaboration, facilitate student participation, and expedite course delivery. Though Blackboard has the ability to completely transform education, its usefulness ultimately depends on how students use and perceive the platform. Therefore, with learning management systems (LMS) like Blackboard being crucial to the facilitation of teaching and learning activities, the use of technology in education has become more and more common in the contemporary digital era Iffat Rahmatullah (2021). A variety of tools and services are available on Blackboard, a platform that is widely used in educational institutions across the globe to improve

collaboration, facilitate student participation, and expedite course delivery. Although Blackboard has the ability to totally change education, its value ultimately rests on how students interact with and perceive the platform.

In order to maximize Blackboard's benefits and resolve any potential issues, instructors and institutions must first understand students' perceptions on the platform. Teachers may learn a great deal about how Blackboard affects students' learning experiences in terms of ease, organization, communication, feedback, engagement, technical difficulties, and accessibility.

In this investigation, we will examine the wide range of opinions that students might have about Blackboard, taking into account both the advantages that improve their educational experience and the difficulties that could impede their ability to succeed academically. Teachers may better customize their use of Blackboard and make sure it is a useful tool for promoting student achievement by recognizing and resolving these misconceptions Gumasing et al, (2022). The premise of this study will provide insightful information to educators, administrators, and developers alike. By means of an extensive analysis of students' experiences, we aim to unearth tactics for optimizing Blackboard's potential as an enabler of teaching and learning in the contemporary educational environment.

Literature review

An Overview of Blackboard

According to Megbowon et al (2023), the integration of online teaching tools has become imperative for education providers, with many institutions adopting Blackboard as their Learning Management System (LMS). Ibrahim et al. (2019) defines the Blackboard Learning Management System (LMS) as a software application or web-based technology crafted for planning, executing, and assessing a specific learning journey. LMS empowers instructors by providing tools to generate and deliver content, track student engagement, and evaluate progress. Advancements in technology, as noted by Ibrahim et al. (2019) reported the potential to modernize teaching methods and enrich learning experiences for students. Uziak et al. (2018) argue that Blackboard LMSs offer an interactive platform that caters for diverse student needs. However, Gumasing et al, (2022) presents a contrasting view, suggesting that while the system enhances learning, it can also impact the development and utilization of online resources and modify traditional teaching approaches, introducing new complexities to program management. Nevertheless, both lecturers and students can benefit from using the Blackboard LMS. The advantages include increased accessibility, timely feedback, improved interactions, and the cultivation of vital skills such as organization, time management, and communication. Appana (2008) further explores the advantages of investing in online learning, highlighting benefits such as increased access, enhanced learning quality, better preparation for a knowledge-based society, opportunities for lifelong learning, and potential profitability. However, Appana (2008) also acknowledges limitations such as the initial funding required for online learning initiatives, the readiness of organizations to adopt this mode of education, and the preparedness of students for online learning environments.

Ibrahim, Mohamed, Aldhafeeri and Alqdah (2019) argue that lecturers expect technology to be reliable and user-friendly, especially when it comes to handling complex teaching tasks. The ease of use and efficacy of technological tools in fulfilling the pedagogical requirements of instructors are critical to achieving intended educational outcomes. However, the adoption of online teaching tools and the transformation of instructional practices face challenges due to varying levels of instructor acceptance. Factors such as the introduction of new technologies, the choice of instructional medium, course design, and organizational policies often pose challenges to implementing effective instructional strategies (Yildirim and Zengel 2023). LMS have become indispensable tools in teaching and training across universities worldwide, whether they are open source (like Moodle or Dokeos) or closed source (like Blackboard or Tutor). They provide pedagogical management tools for delivering online teaching and learning activities effectively.

According to Ibrahim et al., (2019), Blackboard, founded in 1997, stands out as one of the most widely adopted LMSs in higher education institutions. According to Ibrahim et al., (2019) Blackboard's primary objectives include enhancing traditional face-to-face courses with online components and developing fully online courses with minimal physical meetings. Blackboard is more than just a platform for hosting courses; it is a comprehensive system for managing teaching and learning processes. It provides access to online learning services for students, faculty members, and administrators (Ibrahim et al., 2019). According to research by Uziak et al., (2018), pupils enthusiastically welcomed Blackboard and were typically at ease using it. Students report considerable improvements in both performance and communication with the instructor. Additionally, the participants suggested using Blackboard in other courses within their course curriculum.

Research by Yildirim and Zengel (2023) found that students believe that the Blackboard application contributes as a complement to their learning of the project lessons. However, it is foreseen to increase the benefits of communication and collaboration tools to support group work where students have difficulties. The study by Alzain (2021) employed quantitative research methods and a questionnaire was used for collecting data. The questionnaire was designed in Google format and emailed to the students. A sample of 270 participants were selected from the Community College Abqaiq, King Faisal University. The method of analysis was descriptive statistical analysis, where the SPSS was employed for data analysis. The result reveals that students' perceptions were positive because students were aware of the benefit of the Blackboard platform during the COVID-19 pandemic, and when comparing choice preference between blended courses and online courses, students prefer blended courses. This is due to the challenges and difficulties that students face while using the Blackboard platform.

Literature on student perceptions regarding the use of blackboard

According to research, user preparedness, corporate culture, and system adoption are necessary for the Blackboard learning system to be used effectively. Nonetheless, Ibrahim et al. (2019) contend that environmental variables including a lack of social and financial support from friends and family hinder students' capacity to use online learning environments. Furthermore, a major obstacle to students participating more in their online education is work (Davis et al., 2012). Poor student use of the online learning environment is caused by a lack of experience with it as well as other work responsibilities.

According to Bamigboye et al. (2024), Contemporary research on LMS adoption highlights two central issues: the affordances of platforms (access, organization, asynchronous resources) and the structural inequalities that shape actual use. International studies show generally positive perceptions of Blackboard's organizational and collaborative affordances, while also flagging usability and engagement deficits during emergency remote teaching (Alzain, 2021; Mendoza et al., 2021). However, global findings often conceal critical contextual variations in how technologies are accessed and experienced in resource-constrained settings.

South African scholarship provides a more situated understanding of these dynamics. Czerniewicz et al. (2019) argue that digital inequality in higher education is not merely about access to devices but about "differentiated participation" how socio-economic and infrastructural disparities shape students' ability to engage meaningfully with online learning. Their work shows that even when platforms such as Blackboard are institutionally available, inequities in data costs, bandwidth, and digital literacy reproduce existing patterns of exclusion. Similarly, Ng'ambi (2013) and Bozalek, Ng'ambi & Gachago (2013) extend this analysis by demonstrating that effective LMS use depends on pedagogical redesign and dialogic engagement, not technology alone; they contend that learning management systems must be integrated with constructivist teaching strategies to foster

interaction and reflection. Cloete (2017) reinforces this argument by situating the digital divide within broader socio-political realities of South African universities, showing that institutional culture and leadership commitment are decisive in whether LMS adoption translates into meaningful learning opportunities.

Complementing these insights, Timmis and Muhuro (2019) show that rural students' digital transitions are mediated by their "social infrastructures of support," including peer collaboration and informal troubleshooting networks. Their findings echo Moodley (2015) and Maphalala (2021), who both reveal that ECP, and rural cohorts experience persistent connectivity gaps and overreliance on mobile phones, resulting in surface-level rather than transformative engagement with LMS content.

Taken together, these studies reveal that perceived usefulness (PU) and perceived ease of use (PEOU) the core constructs of the Technology Acceptance Model are not purely individual cognitive evaluations but are co-produced by contextual enabling conditions, including infrastructural readiness, pedagogical design, and institutional support. Thus, in the South African ECP context, TAM must be read as a socio-technical lens rather than a universal behavioural model, illuminating how structural facilitating conditions (such as data access, staff training, and inclusive policy) constrain or enable students' acceptance of Blackboard.

According to a Mendoza et al. (2021) study, students prefer online learning because it enables them to juggle their duties in life with their academic obligations. Two hundred and seventeen students responded to the survey that the researchers used to find out why students were interested in distant learning. Because the courses required to finish their degrees were offered more often in the world of online education than they were before, twenty percent of the participants opted for distant learning.

Alhumsi & Alshaye, (2021) surveyed 146 students as part of an exploratory study to find out what factors affected their decision to enroll in online courses. Convenience, degree of difficulty, efficacy, and social contact were the four main factors that the study looked at when determining whether or not to enroll in online courses. The primary factor influencing a student's decision to enroll in online courses was convenience. There were unfavorable ratings as a result of the social contact aspect.

Research by Yildirim and Zengel (2023) found that students believe that the Blackboard application contributes as a complement to their learning of the project lessons. However, it is foreseen to increase the benefits of communication and collaboration tools to support group work where students have difficulties.

Data for the study by Alzain (2021) were gathered through the use of a questionnaire and the quantitative research method. The pupils received an email with the questionnaire that was created in Google style. A group of 270 participants was chosen from King Faisal University's Community College Abqaiq. Descriptive statistical analysis was the mode of analysis, and SPSS was used to analyze the data. The outcome shows that because students were aware of the advantages of the Blackboard platform during the COVID-19 epidemic, their attitudes were good. Additionally, students like blended learning over online courses when it comes to decision preference. This is because students encounter obstacles and problems when utilizing the Blackboard platform.

Theoretical framework

Technical Acceptance Model

According to Qader et al, (2022), The technology acceptance model (TAM) was originally developed by Davis (1986) to explain computer usage behavior. TAM is a useful theoretical framework when investigating how perceived usefulness and perceived ease of use of new technology influence its acceptance. The research field of technology adoption draws from a variety of paradigms, including those created in the fields of decision-making, learning theory, organizational dynamics, and social psychology. TAM employs a belief attitude intentions model to predict the adoption of technology by assessing behavioral intentions using two belief constructs: which are PU (Perceived Usefulness) and PEOU (Perceived Ease of Use). TAM aids in forecasting

the likelihood that a person or organization will embrace new technology. This concept is derived from the theory of reasoned action, which argues that an individual's behavior is governed by their purpose to engage in that behavior, their attitude towards that behavior, and the pressure from society to engage in that behavior (Qader et al, 2022). According to the model, perceived usefulness expresses the conviction that technology improves job performance. In the case of this study PU is defined as the degree to which a student believes that using blackboard would enhance their academic performance or learning outcomes. Perceived ease of use can be defined as an individual's subjective perception that using a certain system is effortless. In other words, PEOU refers to the degree to which a user (student) feels that Blackboard is easy to understand and use. TAM's core constructs perceived usefulness and perceived ease of use directly relate to how students judge Blackboard's value in supporting their learning and how simple or challenging they find the platform to navigate. By applying TAM, the study can better explain why some students engage effectively with Blackboard while others struggle, and how these perceptions influence overall teaching and learning experiences within the extended curriculum context. This theoretical lens also helps identify areas for improving system design, training, and support to enhance student engagement and academic success.

The Technical Acceptance Model has evolved to become one of the most used models in explaining and predicting the technology use and acceptance (Zhang, 2010). Since then, several drivers of technology use and acceptance have been studied and these include perceptions of technology characteristics (Davis, 1993; Segars & Grover, 1993), user's perceptions and other external variables. Having said this, TAM and its extensions have been used in literature on acceptance of technology in educational settings (Zhang, 2010; Alhumsi and Alshaye, 2021, Binyamin, Han and Sa, 2022). Another example is Drennan et al (2005) who found that positive perceptions regarding ease of use of online learning material as one of the two important attributes of student satisfaction. TAM provides a suitable theoretical framework for this study as it directly aligns with the examination of how perceptions of blackboard usefulness and ease of use affect its acceptance and utilization amongst students in the ECP. In a nutshell, TAM is beneficial in studying student's perception regarding blackboard online learning platforms.

Research Problem

There is a growing use of online learning driven by COVID-19 which resulted in *emergency remote teaching* (Mendoza et al., 2021) and/or increase in technology use in higher education (Alhumsi and Alshaye, 2021; Alsuhaibani, 2021; Mendoza et al., 2021). The main online platform behind this surge in online learning is Blackboard (Alhumsi & Alshaye, 2021; Alsuhaibani, 2021; Mendoza et al., 2021). This platform is used across 90 countries by approximately 100 million users (Mendoza et al., 2021).

Existing research by (Ntlabathi, 2014; Van Niekerk, 2020; Uwizeyimana, et al., 2024) has examined student and lecturer perceptions of Blackboard within South African universities. However, findings across these studies vary considerably. Van Niekerk (2020) highlights positive perceptions related to accessibility and communication, while Ntlabathi, (2014); Uwizeyimana et al., (2024) report challenges linked to usability, motivation, and uneven participation. This variation suggests a lack of consensus regarding the platform's perceived usefulness and ease of use in different contexts. Furthermore, very limited research has specifically focused on the Extended Curriculum Programme (ECP) context. ECP students often enter university with differing levels of academic preparedness, varied digital literacy exposure, and socio-economic constraints that distinguish their experiences from mainstream cohorts. These contextual realities may shape how Blackboard is perceived, accessed, and integrated into learning.

Anchoring this study in the Technology Acceptance Model (TAM), the research examines how Perceived Usefulness (PU) and Perceived Ease of Use (PEOU) of Blackboard are experienced by ECP students in a historically disadvantaged, rural university setting. Given the ongoing push toward digital transformation in South Africa's higher education sector, understanding these perceptions is essential for

designing inclusive e-learning support systems that promote meaningful engagement and student success. What we observe is that there are few studies, and these few studies (Uwizeyimana et al., (2024) lack consensus as to perceptions on Blackboard. There is also a lack of studies (Van Niekerk 2020) which focus on extended studies students and/or lecturers. There is also lack of or insufficient studies in South Africa or in South Africa's previously disadvantaged universities.

Research Aims

The aim of this study is to ascertain the perception of Final year Extended Curriculum Program students on the use of Blackboard for teaching and learning at University of Fort Hare.

Research Questions

1. What are your perceptions regarding Blackboard usage for teaching and learning?
2. What are the challenges facing when using Blackboard for teaching and learning?
3. What are the experiences for technology usage for blended learning?
4. How do ECP students perceive the use of Blackboard for blended learning?

Research Methodology

The methodology adopted for this study will leverage the qualitative approach method which involves interviewing Extended Curriculum Program students who are in their final year under the ECP. The study will further involve 2 focus groups, each focus group will consist of 12 final year students from Alice campus and 12 final year students from East London campus, making it a sample population of 24 ECP final year students for data collection. This will then help us understand better some of the perceptions they hold when using Blackboard for teaching and learning purposes. Qualitative method is the approach where researchers seek people's opinion on certain phenomena of a situation or want to know their perception in-terms of feelings with less generalization (Peterson 2019). Literature has shown that a qualitative research approach is consistent with the interpretivism paradigm as it allows participants to tell their stories (Megbowon et al, 2023). To ensure alignment between theory and method, the interview guide is informed by the constructs of the Technology Acceptance Model (TAM). Questions relating to how students experienced Blackboard in supporting their learning activities are used to explore Perceived Usefulness (PU), while questions focusing on navigation, usability, and training probed Perceived Ease of Use (PEOU). In addition, questions about access to devices, connectivity, and lecturer support examined Facilitating Conditions, which extend TAM in technology adoption research. This alignment will ensure that data collection directly reflects the theoretical framework guiding the study.

Research Design

In achieving the main objective of the study, an interpretive paradigm will be adopted. It is selected because it is appropriate for a study that looks at people or small groups in realistic environments (Caga, 2020). According to Peterson (2019) an interpretive paradigm allows the researcher to view the world through the perceptions and experiences of participants. According to (Alharahsheh & Pius, 2020) they assert that interpretivism is more concerned with in depth variables and factors related a context, it considers humans as different from physical phenomena as they create further depth in meanings with the assumption that human beings cannot be explored in a similar way to physical phenomena.

Participants and Sampling procedure

The study participants comprises of 24 ECP students in one of the rural universities within the Eastern Cape Province, South Africa. The ECP students are from the different departments within the Faculty of Management and Commerce. The study will be conducted through structured interview questions around the technicality of the learning management system using blackboard. Each student will be invited to take part in the project through recorded guided focus groups and each focus group comprises 12 participants from the Extended curriculum programme. Focus group 1 is made up of 1st year students whilst Focus group 2 will comprise of 2nd year students. The

focus groups discussion recordings will be transcribed and analyzed using NVivo 12 software to generate themes of findings for this research study.

Ethical Consideration

Ethical clearance was obtained from University of Fort Hare Inter-Faculty Human Research Ethics Committee (IFHREC) with ethics clearance reference number **FUN002-24 (Project).** A written informed consent form was obtained. The participants ECP students gave their consent after being informed about the study. Participants were well informed that their involvement in the study was non-compulsory.

Results and Discussion

The thematic analysis process was also informed by TAM. An initial coding framework was developed based on TAM constructs (PU, PEOU, and Facilitating Conditions), after which inductive coding was used to identify emergent patterns in participants' experiences. The final themes (Challenges, General Experiences, Collaboration, Support & Resources, and Technical Issues) were then interpreted through TAM, illustrating how participants' experiences reflected their perceptions of Blackboard's usefulness and ease of use, as well as the role of contextual enabling factors. This theoretically guided interpretation strengthened the coherence between data and conceptual framing.

Five (5) thematic themes are generated as the result of this study on perception of students regarding the use of Blackboard in ECP programs for teaching and learning. The themes were identified based on the data collected, transcribed and imported to NVivo for file classification, creation of code as the generated themes analysis using NVivo. The themes generated were code based on the feedback received from focus group discussion (FGD) participants from Alice and EL campuses. The five generated themes are: Challenges, General Experiences, Group Collaboration, Support & Resources Tools and Technical Issues.

Challenges

As reported by (Almijlad et al 2022), The challenges associated with Blackboard usage for students are multifaceted, encompassing technical, pedagogical, and psychological aspects. Addressing these challenges requires a concerted effort from educational institutions to provide adequate training, improve technical infrastructure, and enhance the integration of the platform into the learning process. By doing so, they can foster a more effective and engaging online learning environment. In view of this submission, ECP students were interviewed for their opinion on the challenges using Blackboard for teaching and learning. Below are the challenges that emerged

Technical challenges

Based on the analysis from the participants' responses, one key challenge that emerged as a significant barrier to effective usage of Blackboard is technical related challenges. Participants repeatedly described platform glitches, login problems and mobile incompatibilities. Such findings map clearly onto perceived ease of use of when users encounter frequent errors or device incompatibility, the platform is experienced as effortful to use, which reduces the likelihood of continued voluntary engagement. For example, one student reported, "Occasional glitches…can hinder access" and another attributed test failures to connectivity: "If Blackboard throws you out of a test because of a connection issue, it can hurt your academic performance." These quotes show that usability problems are not merely inconveniences; they directly undermine students' confidence that Blackboard will reliably support their tasks a core determinant of PEOU and thereby behavioral intent in TAM. Furthermore, several students emphasised data and infrastructure shortages and the unequal impact on rural learners. They highlighted key challenges such as server outages, difficulties in accessing the course materials due to system errors and slow loading times. In TAM terms, PU depends on whether the technology actually enables better academic performance. For many ECP students, intermittent access meant Blackboard's potential usefulness was not realized and their lived experience reduced PU because the platform could not be depended upon to deliver

graded work or synchronous support. The quote *"Missing materials or assignments because of glitches has affected my ability to keep up with coursework"* shows that structural constraints convert a potentially useful system into an unreliable one reducing PU. To this, participants highlighted the following:

"Occasional glitches, errors, or compatibility problems can hinder access to course materials or functionality."

All these factors have an adverse bearing on the effectiveness of the learning environment. Another key challenge highlighted by the students relates to unreliable university Wi-Fi and insufficient data allocations which act as a hindrance to students' online participation. This is evidenced by the participant who alluded that.

"Reliable internet access is crucial for Blackboard; I've faced challenges when my internet connection was slow or unstable because it would just sign me out of the system."

In addition, students also mentioned the compatibility issues between Blackboard and mobile devices which further complicates their online learning environment. Student highlighted that, there is inconsistency performance of the Blackboard platform when one used a mobile device as some of the features of the platform do not function optimally thus creating disparities for students who are dependent on mobile access.

"Some features or content are not fully optimized for mobile devices."

It is therefore important to note that addressing the highlighted key challenges is the gateway to create a conducive learning environment for students. To address the challenges raised, it is critically important to improve the infrastructure, ensure stable internet accessibility and enhance platform optimization across different devices to ensure a seamless learning environment.

Usability and interface complexity

This is another challenge that the students highlighted. The collected data shows that the usability of the learning platform (Blackboard) poses hurdles to the learners, particularly the first-time users who find the interface difficult and overwhelming to navigate. Students described the interface as overwhelming (many menus, excessive notifications). This aligns with PEOU because complex navigation increases cognitive load and reduces perceived ease. The students highlighted that the Blackboard platform has multiple tabs and layers which make it frustrating to locate specific course resources such announcements or assignments. Furthermore, a majority of students reported that overabundance of content lead to information overload and students further reported lower engagement and avoidance of discussion boards mechanisms that explain why PEOU influences both PU and actual participation. Also, the platform makes it hard for the students to access past materials which also impede the efficacy of their ability to review and prepare for assessments. The sentiments below give supporting evidence of the usability and interface complexity issues.

"The multiple menus, tabs, and options created confusion for me as a first-time user."

"Too much content or too many notifications can lead to information overload, making it hard to focus on essential materials."

"Content from previous modules is no longer available, which makes it difficult to reference earlier materials."

Barriers to participation and engagement

While the blackboard platform offers a wide range of advantages e.g. able to retrace the footprints for the past lectures through recording or allowing the student to attend lectures in the comfort of their residences, the platform also presents some key challenges when it comes to participation and engagement. The interviewed participants reports that platform's design and user experience, to some extent, deter the student participation and engagement primarily due to the lack of immediacy and human connection when compared to the traditional physical lecture interactions. This is evidenced by the sentiments of the participants below.

"Discussion boards and live sessions can lack the immediacy and human connection of in-person interactions."

"I think collaboration could be better, but people don't want to engage actively, especially in large groups."

"Students rarely comment on others' work in discussion boards, limiting how much we learn from each other."

Inequities in accessibility

Students highlighted that in some cases, language barriers fuels inequities in accessibility of the course content. In this regard, students highlighted that when lectures are not in the universally understood language like English, this complicates their access to the delivered course material and excludes some students to fully engage with the course content.

"Understanding course materials is difficult because most lectures stick to their language instead of English."

Furthermore, the students highlighted the inadequacy of the Blackboard platform in accommodating students with disabilities, thus creating inequities in the learning environment.

"Blackboard should ensure equal access and accommodations for students with disabilities."

Expectations for improvement

The participants hold expectations and hopes for the learning platform to become more efficient and user-friendly. This involved the ease of navigation when accessing course materials. Furthermore, there is a strong emphasis, by the students, on the role of instructors to actively participate in roles by giving timeously feedback and guidance to foster a sense of community and connection.

"Access to helpful guides, tutorials, and technical support for troubleshooting and optimization."

"Instructor participation, feedback, and guidance foster a sense of community and connection."

"I expect Blackboard to make managing my academic responsibilities easier, not more complicated."

Impacts of the challenges on academic performance

The negative impact of the technical and usability challenges of Blackboard have far reaching implications for students' academic performance. For example, unstable internet connectivity which consequently lead to interrupted learning experience such as being logged out of the tests or lectures, significantly affect the overall pass rates of students. Below is evidence to support this.

"If Blackboard throws you out of a test because of a connection issue, it can hurt your academic performance."

"Missing materials or assignments because of glitches has affected my ability to keep up with coursework."

"Managing my time effectively to complete online assessments and participate in discussions has been a challenge."

General Experiences

According to (Uziak et al, 2018) who described Blackboard technology learning management system general experience as the most proactive, personalized and intuitive for students providing a navigating and activity system. Therefore, to have an effective integration and utilization requires careful considerations of both technical and pedagogical factors (Baburajan et al 2019). All these give us a better experience on the student's perception on Blackboard for teaching and learning. This theme is deduced from the responses received from the participants of ECP students on their views on Blackboard use for teaching and learning.

Though there are challenges and issues related to the use of Blackboard, the participants' general experience reveals an important role played by the platform to create a conducive learning environment, promote organization and access to modern education. The key merits of the Blackboard or online platform is its ability to allow students to access the course material from anywhere in the world and at any time. Furthermore, through it tools like discussion boards, group assignments and chat functions,

Blackboard fosters an enhanced learning experience to students. This facilitates efficient communication, promotes collaboration and engagement between the lecturers and students.

Furthermore, the role of Blackboard as a supporting mechanism in education has been underscored by its flexibility to allow students and instructors to conduct lectures particularly during the COVID-19 pandemic. The sentiments below underscore the critical role played by the Blackboard platform in the education sector.

"I can access course syllabi, notes, readings, and assignments from anywhere, at any time, reducing the need for physical storage."

"Blackboard provides a centralized platform for instructors to manage course materials, assignments, and interactions."

"It keeps everything organized in one place—assignments, grades, announcements, and course materials."

"Blackboard bridges the gap between us students and our lectures. We can receive, do our schoolwork, and submit online."

"I am able to go back to the recorded lessons, which come of great help when I'm behind or confused about certain topics."

"Blackboard allows for flexible access to course materials, enabling students to learn at their own pace, anytime, and from any location."

The responses feedback is in line with the submission of (Uziak at al, 2018) and Baburajan et al, 2019), See ECP responses on the general experiences on BB usage after coding and analyzing.

Group Collaboration

Blackboard's group collaboration features enable students to work together effectively, enhancing their learning experiences through structured communication and resource sharing (Hamill 2020). By leveraging tools like Blackboard Collaborate, discussion boards, and task management systems, students can engage in meaningful collaborative activities that support their academic success. Blackboard provides a robust platform for group collaboration among students, facilitating various collaborative activities and enhancing the learning experience (Mendoza at al, 2021). In line with the submission of (Hamill 2020) and (Mendoza et al, 2021) this theme talks to the scholarly work reported, from the responses received from the ECP students on their views on the Blackboard as a tool for teaching and learning.

In their responses students have acknowledged the benefits of using blackboard for group collaboration. Blackboard enhances teamwork and communication through discussion boards, file sharing options etc. which enables collaboration in so doing accommodating everyone despite their location and schedules. Group collaborations through blackboard stimulate active participation, peer learning, critical thinking amongst others which will help students to effectively manage their tasks. The sentiments below support the critical role played by group collaborations through blackboard. Students reported that Blackboard supports group work as it allows for shared documents, asynchronous collaboration, but some students preferred WhatsApp for immediacy. This suggests that while Blackboard can be instrumentally useful PU, social and practical norms such as ease of WhatsApp, existing peer practices mediate uptake meaning that, when affordances of alternative tools are perceived as both easier and socially salient, Blackboard's PU is undermined in practice. This finding shows TAM's limits unless social and contextual variables such as social influence and facilitating conditions are included in interpretation.

"I think it's a good idea because we get to communicate from wherever we are through the blackboard, we don't have to look for places to meet or anything. We can just connect from where we are".

"Sometimes it is really effective because we get to understand things we didn't know from our peers, sometimes in a more relatable way. Enhanced collaboration, as it facilitates group work by providing a shared space for us students to collaborate, access resources and communicate".

"Group collaboration allows students to tap into each other's knowledge, skills, and resources".

"Collaboration in groups can be highly effective for learning, offering numerous benefits. Collaborative learning enhances understanding and retention of material, as students explain concepts to each other. Group collaboration exposes students to different viewpoints, fostering creativity, critical thinking, and problem-solving skills. Group work helps students develop essential soft skills like teamwork, leadership, communication, and conflict resolution. Collaborative learning encourages active participation, motivation, and accountability among students. Group collaboration promotes collaborative problem-solving, critical thinking, and decision-making. Group work simulates real-world scenarios, preparing students for collaborative work environments. Collaborative learning enhances communication, empathy, and interpersonal skills.

"My point of view is that group collaboration could be effectively done on Blackboard because it has a discussion board, a group assignment, and a collaborative space where we students can share our ideas or resources. These features make it easier, in this respect, to cooperate, coordinate different activities, and even contribute equally to certain projects remotely. However, collaboration can only be successful depending on how well we students make use of the tools. In fact, technological problems or unfamiliarity with the use of the platform pose participation challenges. However, I think when well-organized, Blackboard encourages teamwork and allows for a better learning outcome because of the collective inputs".

However, students have also highlighted that blackboard causes problems for group collaborations. In their responses, some students argue that blackboard is less effective as compared to face-to-face collaborations due to in abilities to create human connections. Poor interaction and technical problems were also mentioned as hindrances to group dynamics on blackboard group collaboration. Some participants preferred WhatsApp over blackboard as they argue that it is easier to use, and it allows immediate group collaboration. See responses below for evidence:

"I have never interacted with others as a group using blackboard. WhatsApp is preferable as a means of group collaboration. Collaboration is the only reason one would participate in a group. Eagerness to engage allows for faster and better learning outcomes, the group is a hindrance otherwise. They are okay, but it affects some of the students who can't study online plus teachers can monitor the class when it is online".

"Group collaboration through Blackboard is not the easiest thing. Like in any instance, it's easier to do things together and reach an understanding when everyone is in the same place".

"Currently it is not that effective because students barely attempt the discussions. When they do though they only put up their answers and they shy away from discussing the work by either leaving comments on existing answers or being against whatever that was put up. In that way students barely learn from each other".

Support & Resources Tools

As reported by (Mendoza at al. 2021) who stated that getting a successful implementation of Blackboard requires addressing both technical and pedagogical considerations. In the same vein, as reported it provides adequate support and resource tools mechanisms for all stakeholders for Blackboard to provide valuable features and resources support. In support of the above views by (Mendoza et al, 2021) ECP students were engaged in both EL and Alice campus and interviewed to have their opinion on their perception of Blackboard usage in ECP program for Teaching and Learning which is in line with the scholar submission.

Findings under this theme provide mixed perceptions of students regarding blackboard's role in facilitating learning. From the responses of the participants, they acknowledge blackboard's collaboration tools such as discussion boards, file sharing etc in promoting discussions, teamwork and allowing for interaction amongst the members of the group. Blackboard support and resource

tools were also praised for their ability to accommodate students with different schedules and locations, helping groups to stay focused, manage tasks and to meet deadlines. In addition, these tools enable instructors to monitor and give feedback to students which may enhance accountability in so doing supporting the learning outcomes. These findings are supported in the following opinions of some participants

"I think it's a good idea because we get to communicate from wherever we are through the blackboard, we don't have to look for places to meet or anything. We can just connect from where we are".

"Collaboration within the learning group works effectively, as it really allows peer interaction, sharing of ideas, and multiple viewpoints, which can deepen the understanding. It also gives an opportunity for one to learn how to communicate effectively and develop good teamwork skills that are useful even in real life. Collaborative learning often makes discussion and problem-solving more engaging through discussion and solving problems together, which allows us as students to learn from other classmates' strengths.

On the other hand, some participants noted that blackboard collaboration is less effective compared to face-to-face engagements due to lack of immediacy. The unwillingness by students to interact also reduced the effectiveness of the platform. In addition, others highlight that the significant challenge they face regarding the platform, and it supports tools is technical issues and being unfamiliar with the platform. Few students mention the limitations of the platform

"Group collaboration through Blackboard is not the easiest thing. Like in any instance, it's easier to do things together and reach an understanding when everyone is in the same place".

"I have never interacted with others as a group using blackboard. WhatsApp is preferable as a means of group collaboration".

Students also mentioned that they are reluctant to participate in discussion boards or group activities on blackboard collaborate because they are not motivated, and they also fear to be judged. See evidence

"It is not as effective as our lecturers, tutors and SI leaders think it is. Yes, it is a lot easier to have everyone at the same place rather than separately, but people don't want to interact when there are a lot of people. The students have a fear of ridicule and judgement, and they would rather leave a tutorial and SI session knowing just as much as when they came in because of all these fears. Nothing can really be changed or done, other than assuring the students that it's a safe space and everyone is just there to learn".

This lowers the effectiveness of efforts to collaborate and leaves students feeling disconnected. To address these challenges, it is suggested that a supportive and inclusive environment ensures students feel safe to interact and providing structured activities in so doing promoting collaboration.

Technical issues

Blackboard, a widely used learning management system (LMS), Technical issues in Blackboard can significantly impact students' ability to engage with their courses effectively. Institutions should provide clear guidance and support to help students navigate these challenges, including troubleshooting tips and timely communication regarding system outages or updates (Alokluk 2018). By addressing these issues proactively, educational institutions can enhance the overall user experience on the platform. In supporting the researcher view this research also came up with this theme for this finding as analysis from ECP students on technical issues around Blackboard usage.

The findings of the study show substantial problems relating to technical issues in the use of blackboard and these issues hinder the students' ability to engage effectively with blackboard. Students raised concerns regarding login and accessibility, internet connectivity, performance and compatibility issues and limitations of the platform during peak usage. Most students mentioned login challenges as the system requires them to constantly update the passwords which delays and prevents students

from accessing the platform during crucial times for examples classes, tests and assignment submissions. This is shown in the following responses

"The constant change in passwords. I don't like that because now I'm constantly changing which means it's easy to forget the new password. It's not an effective system on my side personally. The difficulties are that when you lose your cell phone you can't log in because you must access it by your opt. The only problem I have had with logging into blackboard was when my phone stopped working and I was unable to do the two-step verification".

"Entering incorrect usernames or passwords can cause login issues. Multiple incorrect login attempts can lead to account lockouts, requiring password resets or admin assistance. Poor internet connections or network outages can prevent users from accessing Blackboard.2FA setup or verification problems can block login attempts. Failing to update expired passwords can lead to login failures. Server maintenance, technical glitches, or platform updates can cause login difficulties".

"The identity verification process is a good security measure, but it prevents people from accessing blackboard if they have no cellphone as Microsoft calls or texts us via our cell phone numbers. I personally think that there must be a different yet security tight way to access blackboard as a lot of students find themselves not writing their test as they can't log in. There is also a rising issue of internet connectivity, we have residences that do not have enough WIFI routers making it difficult to access the internet".

"It requires us to update our passwords from time to time, so sometimes we forget our passwords, leading us to not being able to log in. Sometimes there is no network so we can't log in. Sometimes the system performance is too slow".

The second technical issue raised was pertaining to internet connectivity or network issues. Students mentioned that unstable and poor internet connection, weak network infrastructure and slow internet speeds (The institutional internet) significantly affected the effectiveness of blackboard as a teaching and learning platforms. Slow internet speed adversely affects the usability of the platform, especially during peak times in so doing hindering student engagement and learning. See evidence below

"There is also a rising issue of internet connectivity, we have residences that do not have enough WIFI routers making it difficult to access the internet".

"With blackboard there are slow times especially when there is heavy traffic during peak times, such as during assignment deadlines or exam periods, Blackboard servers may experience high traffic, leading to slower loading time".

Performance and compatibility issues were raised several times as one of the technical issues affecting the effectiveness of blackboard. Performance problems such as unresponsive pages, were found to be amongst the most common challenges faced by students trying to use blackboard. Browser compatibility also affected the functionality of blackboard. Students mentioned that outdated versions of Chrome or Firefox for example were causing errors and display issues which ultimately affect the functionality and effectiveness of blackboard. Some students said.

"What I have noticed is that blackboard becomes very slow when you use it on a google browser but faster chrome and Microsoft edge".

"The inability to access certain features or tools and some browsers may be outdated, and some may lead to issues with blackboard's layout or functionality".

"Older browser versions are causing compatibility problems, such as outdated Chrome or Firefox versions. Mobile browsers having limited functionality or display issues on Blackboard. Certain browser extensions interfere with Blackboard's functionality. Browser cookies and cache causing issues with Blackboard's login or functionality. Browser-specific display and layout issues affecting Blackboard's user interface. Certain browsers limit access to specific Blackboard features or tools. Browser updates or changes causing temporary compatibility issues with Blackboard".

The identified technical issues reflect the systematic challenges that negatively affect the usefulness and effectiveness of blackboard as a platform for teaching and learning. The issues discussed disproportionately affect students in the rural areas resulting in increased inequality in access to education. Improving internet infrastructure, simplifying the login process and ensuring timely and thorough training. In addition, the institution may work with platform developers to improve compatibility. In addition, the contribution for this study contributes valuable insights into how students in an Extended Curriculum Programme perceive the use of Blackboard for teaching and learning, highlighting the specific challenges and opportunities experienced by academically underprepared or transitioning learners. By capturing their views, the study deepens understanding of how digital platforms shape engagement, confidence, and learning outcomes in support programmes. The findings also offer evidence-based guidance for lecturers, instructional designers, and institutions seeking to enhance digital pedagogy, improve Blackboard's usability, and design more inclusive support interventions. Ultimately, the study adds to the broader discourse on technology-enhanced learning in higher education, particularly within contexts where additional academic support is essential.

Conclusion, Recommendations and Future work

Based on the analysis of the findings on the perceptions of the use of Blackboard as a learning management system for ECP students for teaching and learning, the data analysis generated Five (5) themes for this study which are challenges, general experience, group collaboration support & resources tools, and technical issues. However, the aim of the study is to ascertain the perceptions of Extended Curriculum Programs students on the use of Blackboard for teaching and learning. Data collected were classified into 2 categories of focus group discussion (FGD) for both EL and Alice. FGD EL has a valid response data of 51 while FGD Alice has 63 valid responses data. From the findings, the general experiences on Blackboard usage for teaching and learning has the highest reference from both FGD in EL and Alice with 25 responses gathered and code with NVivo. Challenges is the second most referenced with 23 with both FGD in EL and Alice references gathered and code with NVivo. Followed by support & resources tools as the third theme with the 23reference gathered and code with NVivo as FGD in both EL and Alice. Group collaboration has 22 references for FGD for both EL and Alice. while the last theme is technical issues with 19 references gathered and code for FGD for both EL and Alice. Anchored in the Technology Acceptance Model, this study shows that ECP students generally recognise Blackboard's organizing and collaborative potentials (PU), but persistent ease-of-use and facilitating condition problems (PEOU and institutional constraints) substantially limit the platform's realised benefits. Practically, this means universities must address both platform usability (user interface simplification, mobile optimisation, clearer navigation) and structural barriers (data support, stronger residential Wi-Fi, alternative secure login methods). Theoretically, our findings show that in resource-constrained, rural settings TAM must be applied as a socio-technical framework as PU and PEOU are co-produced by technology design and structural facilitating conditions.

The main objective of the study was to ascertain the perceptions of the students in the Extended Curriculum Programme regarding the use of blackboard for teaching and learning at a rural university in the Eastern Cape. The results revealed that students generally recognize blackboard as a valuable platform for enhancing flexibility, accessibility and organization in their schoolwork. Students also noted that blackboard features including discussion boards, file sharing and access to recorded lectures are important as it enables self-paced learning and interaction and learning from peers. They also praised blackboard for its flexibility in allowing students access to course materials and lectures anywhere and anytime. On the other hand, students have highlighted challenges such as technical issues which included login difficulties, connectivity issues and browser compatibility. Because of these technical challenges some students prefer platforms such as WhatsApp as it is easy to use. Also, fear of judgement and lack of motivation are

other challenges that limit the blackboard's potential to result in meaningful interactions. These findings imply that to enhance the functionality of this platform, then these technical issues need to be addressed. Creating a more inclusive and engaging learning environment may also enhance the effectiveness and functionality of blackboard.

Continuous support, training, and improvements to the platform are essential to maximize its effectiveness and ensure that it meets the evolving needs of students in a digital learning environment. Therefore, students generally perceive Blackboard as a beneficial tool for enhancing their learning experience, challenges related to technical issues, usability, and the perception of its role in education persist.

Overall, the result of the study indicates that Blackboard has become a valuable component in teaching and learning, with ECP students working together to leverage its capabilities and enhance the learning experience. However, the following recommendations are suggested as follows.

1. There is a need for more training from the teaching and learning center for both ECP students on how to navigate around Blackboard.

2. There is a need to incorporate some features into Blackboard like gamification elements for students to increase engagement through the use of competition, creativity, students-led learning and immediate feedback.

3. Enhancement of active learning opportunities for students by the lecturers and institution.

Implications for TAM

Interpreting the data through TAM shows two substantive contributions which are (1) in contexts with infrastructural constraints (rural ECP settings), PU and PEOU are tightly coupled to external facilitating conditions such as data access, device compatibility, languages. (2) The same Blackboard features can be experienced as useful or useless depending on contextual reliability thus institutional investment in infrastructure and targeted training will not only increase PEOU but thereby indirectly raise PU and behavioural intention to use the platform. These theoretical linkages explain why the researchers' descriptive themes (e.g., "technical issues", "access inequities") matter for acceptance as they alter core TAM beliefs rather than being peripheral complaints.

Limitations and areas of further research

Since the study employed Qualitative methodology based on focus group discussion in gathering insights into students' perceptions, there limitations such as the subjectivity in the interpretation by the researchers which could introduce bias in identifying themes. Also, the results are based on the data collected from final year ECP students at one rural university in the EC province which means that these results may not be true representation of other student populations, universities etc.

Recommended future work is to incorporate and accept the use of Artificial Intelligence tools into Blackboard with some AI ethical considerations for both lecturers and students. In addition, future research may consider a mixed methods approach so that qualitative findings can be complemented by quantitative data-based results. Including more universities and having a comparison between rural and non-rural universities may provide a comprehensive understanding of the effectiveness and functionality of blackboards.

Disclosure

Conflict of interest

The authors declare no conflict of interest.

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