Teachers' Perception of Implementing Blended Learning at the University Level

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Abstract

The purpose of this study was to examines the awareness of a blended learning approach among university teachers in Islamabad. As blended learning in higher education combines online and traditional methods for personalized learning, but challenges include lack of rules, faculty support, and specialized knowledge in implementation. For this purpose, a qualitative research method was adopted in this study. The data was collected from teachers by adopting interview guide. Interview guide was validated by the experts of blended learning. The data was collected through purposive sampling technique. Thematic analysis was conducted to analyze the qualitative data. The themes were consisted of perception of teachers about blended learning, available facilities, practices of blended learning and the factors affecting implementation of blended learning, the study reveals that university instructors generally support blended learning due to its accessibility and flexibility. However, they face challenges like increased workload, decreased student accountability, and reduced online participation. It is recommended that to successfully implement blended learning, teachers need customized training courses, online component management tools, technical support, a community of practice, and frequent assessments. The study highlights blended learning and I.T. in higher education for personalized learning, highlighting challenges like internet and electricity, emphasizing the need for capacity building and teacher training.

Keywords: *Teachers, Perceptions, Blended Learning, Higher Education, Qualitative Study*

1. Introduction

Blended learning enhances classroom academics by incorporating technology and personalized learning. Teachers design methodologies based on students' needs, enhancing personalized

learning, and enhancing classroom performance (Fisher, 2019). Oliver (2010) narrates that blended learning rapidly developed in Higher Education as a popular method for personalized instruction to improve students' learning. Teachers use blended learning to blend online and brick-and-mortar experiences to provide student-centered learning opportunities for all pupils (Staker, 2013). Teachers use technology to fulfill students' learning needs by providing online content and instructions and delivering lectures face-to-face (Verma, 2015). According to Soomro et al. (2018), blended learning has become a popular approach for meeting the diverse demands of higher education institutions worldwide. A key factor in the success of blended learning implementation at the university level is the teachers' view of it. The success of blended learning implementation at the university level and its overall efficacy in improving student learning outcomes can be greatly influenced by teachers' perceptions of the programme (Cai et al., 2015). (Lim & Wang, n.d). Because blended learning combines the best features of online and conventional teaching methods, it is becoming more and more popular in higher education. The perception and acceptability of blended learning by university professors is a critical factor in its effective implementation, as noted by Islam et al. (2021). Since many of them are proficient with technology and have internet capabilities, instructors' opinions of blended learning implemented at the university level are typically positive Coltea (2022). They are aware of the potential advantages of blended learning, including its capacity to offer greater flexibility, unrestricted access to a variety of materials, and chances for interactive and group learning (Cai et al., 2017). The study did discover, however, that colleges are still only partially aware of blended learning implementation (Soomro et al., 2018). To properly adopt blended learning at the university level, greater professional development and support for instructors are required (Islam et al., 2021). Moreover, implementing blended learning presents several difficulties for teachers. The absence of rules and regulations for adopting blended learning in universities is one of the difficulties (Soomro et al., 2018). Lack of faculty support and training to start blended learning courses is another problem. In addition, educators encounter difficulties related to a lack of specialized knowledge required to administer blended learning programmes and a lack of computer labs to support these programmes (Ibrahim & Nat, 2019). To properly use blended learning at the university level, educators require more professional development and assistance (Islam et al., 2021).

Furthermore, embracing blended learning presents several problems for teachers. According to Soomro et al. (2018), one of the difficulties is the absence of rules and regulations for adopting blended learning in academic institutions. The absence of faculty assistance and training to start blended learning courses is another difficulty. The absence of specialized skills required to administer blended learning courses and the scarcity of computer labs to support them provide additional difficulties for teachers (Ibrahim & Nat, 2019). Similarly, a great teacher always tries to adjust to the learner and feels responsible for preparing students for the future workforce, designing content according to the future needs of the students (Alijani et al., 2014). Information Technology enables students and teachers to access literature and academic resources quickly, eliminating the need for frequent library visits and limited book renewals. Chew (2009) says that

teachers also transfer content material to students before lectures. Teachers send content via email, benefiting from ICT educational opportunities (Bliuc, Goodyear, & Ellis, 2007). This study evaluates teachers blended learning, perception, and practices in higher education institutions, focusing on benefits and challenges.

It examines teachers' awareness of resources, education, environment, available facilities, practices, factors associated with blended learning, and challenges preventing their adoption in social sciences departments. Blended learning has potential but is not widely adopted. The World Bank project HEDP aims to prepare students and universities for modern technology. Over the next five years, 800 new blended learning programs should be offered. A new ICT strategy is essential to address budget cuts, limited access, digital skills, and education quality. Bahlol and Khan (2016) claim that ICT in education facilitates academic goals, enabling teachers to adopt the latest content and technological knowledge. Macdonald (2008) says blended learning shifts teachers' roles, demanding active involvement in course design, evaluation, and feedback, while students become more involved in online assignments and discussion boards.

1.1 Research Objectives and Hypotheses of the Study

The following is the objective of the study i.e. (a). To examine the awareness of a blended learning approach among university teachers; (b). To examine the challenges faced by the faculty members for adopting blended learning at higher education institutions; (c). To find out the facilities available to the faculty members for adopting blended learning at higher education institutions; and (d). To determine the practices of faculty members for adopting blended learning at higher education institutions.

2. Literature Review

Blended learning is one method for increasing a country's global competitiveness in the present era of information and communication technologies (Bliuc & Goodyear, 2007). The teaching-learning process is dynamic at higher education institutions; adjustments are made regularly. The idea of implementing and using a blended learning strategy is also expanding in higher education institutions (Arora, 2014).Since the advent of technology-enhanced teaching and learning, there has been a movement towards reevaluating the goals of education and knowledge in the twenty-first century. Higher education institutions (HEIs) utilize large resources to incorporate technical setup into already-existing classroom facilities to enhance teaching via the use of technology. Students' preferences are always shifting, and some flexible and technology-rich learning opportunities (Bergmann, 2012). Sir Isaac Pitman pioneered the use of blended learning, distant learning, and distance education in the 1840s by instructing his pupils. The way in which university teachers see the implementation of blended learning is crucial because it affects their desire and readiness to employ these approaches in their instruction (Bruggeman et al., 2021). Additionally, instructors' perceptions influence how well they comprehend the advantages and difficulties of blended learning, how open they are to implementing new technologies, and how well they can

modify their pedagogical approaches to successfully combine in-person and virtual instruction (Cai et al., 2017).

Teachers' perceptions can also affect how confident they are in using blended learning materials and technologies, how well they can help and engage students in an online setting, and how satisfied they are with the blended learning strategy (Ibrahim & Nat, 2019). For blended learning to be successfully adopted and effective at the university level, it is essential to comprehend teachers' viewpoints on the subject. Blended learning at university level benefits teachers by increasing flexibility, student engagement, and resource access. However, challenges include additional training, increased workload, and decreased student accountability. Professional development opportunities are essential for teachers to improve their skills. An increasing collection of research on instructors' perceptions of adopting blended learning at the university level has been revealed by the literature review (Soomro et al., 2018). Numerous studies have indicated that instructors see blended learning favorably and are aware of its potential advantages. They like the flexibility it offers to teachers and students alike, as well as the chances it creates for more student involvement and participation (Islam et al., 2021). In addition, educators view blended learning as a means of improving their ability to instruct students and fulfil their varied demands.

They also recognize how critical it is to give educators the right kind of guidance and assistance so they can successfully integrate blended learning. Numerous studies have also revealed that because blended learning offers more flexibility and access to resources than traditional face-to-face sessions, students prefer it (Bisriyah, 2020). Blended learning is a solution for higher education institutions, but teachers' perception of its effectiveness and impact on students' academic performance varies. Some believe it improves outcomes, while others question its effectiveness compared to traditional face-to-face instruction. Higher education is embracing blended learning, combining online and in-person instruction for increased flexibility, engagement, and resource accessibility. However, challenges like time commitment, technological issues, and student accountability need to be addressed. Blended learning fosters a dynamic, cooperative learning environment, allowing students to interact with peers and professionals (Islam at al., 2021). Blended learning in higher education offers a flexible, adaptable environment for critical thinking and environmental awareness. Despite challenges like lack of faculty training, resistance to change, and resource allocation, it effectively boosts student interest and comprehension (Boelens et al., 2017).

Higher education's use of blended learning provides an atmosphere that is flexible and adaptive for environmental awareness and critical thinking (Caravias, 2015). It successfully increases student engagement and comprehension despite obstacles such as lack of staff training, opposition to change, and budget allocation (Minhas et al., 2021). Teachers' perceptions are also impacted by their knowledge of blended learning, their comfort level and preparedness for utilising technology, the accessibility of resources and assistance, and their own teaching preferences and styles. In general, educators view blended learning as a useful strategy that may improve student engagement and learning (Irum, 2020). Critical thinking, teamwork, and active learning are

encouraged when curriculum design incorporates blended learning. When assessing digital tools for students, educators should consider factors including instructor training, assistance for efficient use, and accessibility (Kumar et al., 2021). In higher education, blended learning is an instructional strategy that mixes in-person and virtual training. It allows students to interact with course contents at their leisure by providing flexibility in terms of time, location, and learning speed (Soomro et al., 2018).

The development of critical 21st Century skills including communication, information literacy, creativity, and teamwork is encouraged via blended learning. It allows for the integration of technology and web resources into lesson preparation and curriculum development (Permata & Nanda, 2021). As a result, students are encouraged to collaborate and share their expertise, which fosters collaborative learning. Increasing access to resources, improving student achievements, and raising engagement and satisfaction are all made possible via blended learning (Ibrahim & Nat, 2019). It is purposefully incorporated into curriculum creation to match learning outcomes and objectives. Blended learning offers individualized, flexible experiences, it has the potential to completely transform higher education. It combines in-person instruction with virtual resources so that students may access course materials whenever it's convenient for them. This methodology cultivates student participation and engagement, so laying the groundwork for a more dynamic and captivating learning environment (Caird & Roy, 2019).

By providing faculty with professional development opportunities in pedagogy and technology integration, institutions may effectively tackle the problems associated with blended learning. Additionally, they may provide faculty members on-going assistance and tools to help them incorporate blended learning into their lesson plans and curricula (Porter et al., 2014). Institutions should include teachers and students in the planning process and make sure they understand the advantages of blended learning to overcome reluctance (Ma'arop & Embi, 2016). Adaptive learning technologies, social learning platforms, competency-based education models, immersive virtual and augmented reality, and open educational materials are some of the emerging trends in blended learning. To meet learning objectives and outcomes, purposeful integration of online and in-person teaching techniques is used to include blended learning into curricula and lesson plans (Mcgee, 2014). In today's classroom, blended learning serves to give personalized a customized and adaptable learning environment (Alammary et al., 2014). In addition to giving students flexibility over their own learning style and pace, blended learning offers chances for group projects and interactive learning (Muftahu, 2023).

Curriculum and class preparation can use online and in-person components that improve and complement one other to create blended learning experiences (Khan et al., 2023). Blended learning is a smart approach to higher education that combines online and in-person teaching techniques, fostering digital literacy and creating learning communities. It allows students to access course materials and participate in interactive activities, and research shows that integrating instructional videos enhances practical abilities (Bower et al., 2015). Blended learning enhances active learning, critical thinking, and problem-solving skills by combining e-courses with face-to-face teaching and responsive teacher management. It also reduces barriers for students with different learning

styles or accessibility needs, promoting collaboration and interaction through online discussions and group projects.

Overall, blended learning offers numerous advantages in higher education (Alammary et al., 2014). Blended learning and curriculum creation are effective in higher education, as demonstrated by studies by which found that integrating in-person and online learning activities increased student participation, cooperation, and performance. This approach also improved student results, expanded access to resources, and fostered better student-faculty cooperation in computer programming course curricula. This shift in education delivery dynamics is a significant development in the field (Kumar et al., 2021). In addition to creating a learning community that encourages inquiry, reflection, and conversation, blended learning in higher education may improve 21st-century abilities including communication, information literacy, creativity, and cooperation. Research indicates that when compared to conventional in-person training, it enhances student success, retention, and engagement (Nicole, 2018).

In addition to creating a learning community that encourages inquiry, reflection, and conversation, blended learning in higher education may improve 21st century abilities including communication, information literacy, creativity, and cooperation. Research indicates that when compared to conventional in-person training, it enhances student success, retention, and engagement (Garrison & Vaughan, 2007). Blended learning in higher education improves student motivation, satisfaction, engagement, retention, and achievement by offering an interactive and engaging learning experience. It fosters a learning community, allowing inquiry, reflection, and discourse. Technology integration facilitates assessment, data collection, and personalized feedback, resulting in more effective instruction (McGee, 2014). Blended learning in higher education offers numerous benefits, including enhanced student engagement, personalized learning experiences, and improved access to resources and materials. This pedagogical approach combines online and face-to-face components, ensuring a flexible and personalized learning experience for students (Fisher et al., 2018).

3. Method of the study

3.1. Research Design

A qualitative research process allows researchers to increase a general overview of the research's perspective and describe data on the knowledge of numerous contributions. To better understand instructors' current experiences and develop educational approaches that benefit learners in the twenty-first century, a qualitative research design is a good choice (Patton, 2015).

3.2. Population, Sampling, and Research Tools

In descriptive studies, it is customary to define a study population and then make observations on a sample taken from it (Banerjee & Chaudhury, 2010). The study investigates teachers' perceptions of blended learning in higher education institutions. It uses an interview guide and data collection methods, including online interviews, open-ended questionnaires, and personal visits. From the population of 292 teachers, the sample of 181 teachers was received through using Solvin's

formula. The data was analyzed using Atlas T. I, and the primary codes of blended learning were identified. The study used a stratified random sample of 51 teachers, with 55.6% having doctoral degrees and 14.8% having post-doctorate degrees. The research instrument was developed by the authors and validated by an expert. The reliability of the instrument was ensured by applying Crohn's Bach alpha reliability score and that was .837.

4. Results and Discussion

To obtain the results of the qualitative data through adopting thematic analysis the results are found as under: The study examines university instructors' perceptions and practices of blended learning in higher education. It identifies four themes: available facilities, perceptions of blended learning, factors influencing successful implementation, and teachers' practices. The results of the study are mentioned under the heading of perception of faculty members regarding challenges faced by them for adopting blended learning, which facilities are available or unavailable to them, their overall perception of adopting blended learning and practices of blended learning at the higher education institutions:

Theme 1: Challenges of faculty members for adopting blended learning:

Blended learning has faced several negative factors, including a lack of technical knowledge among teachers, difficulty in analyzing student learning, distractions during switching modes, and difficulty in analyzing student progress. In online lectures, students may not ask questions, which is a challenge due to webcams in Pakistan.

Teachers say that they miss a live session with their students. One of the teachers also said, *"I think these professional learning opportunities had no impact as students are not altering letting things seriously. Secondly, you have no idea whether they (students) are getting you. Through facial expressions, it's easier to understand whether they are interested or not. Most stated many factors, such as lack of technology, training, and skills. The lack of coordination of administrative staff is impacting students negatively as students are losing interest."* Teachers face challenges in adopting blended learning, including internet connectivity, lack of resources, technical knowledge, and managing student progress. They also struggle with software issues, unprofessional attitudes, and student readiness. In Pakistan, blended learning is not equally beneficial for both teachers and students and requires drastic changes.

Effective blended learning requires motivating students, maintaining focus, creating a sense of community, making discussions meaningful, increasing engagement, and addressing equity issues. Challenges include technical knowledge issues, student analysis difficulties, plagiarism, time management, and remote areas. Teachers face difficulties in internet connectivity, lack of resources, and technical knowledge, as well as managing student progress, software issues, and hardware availability. Student readiness is another challenge, with many lacking interest and concentration. Lack of peer support and familiarity with technology also hinders effective use of blended learning. Teachers believe awareness and training sessions for blended learning methodology, as well as student feedback and dissatisfaction, may help improve adoption. Blended

learning can be effective up to a certain limit but may not be attractive in the long term. Factors such as lack of technology, training, skills, and coordination among administrative staff negatively impact students.

During the COVID-19 pandemic, blended learning technologies were widely used by teachers, but some teachers struggled due to insufficient resources. Challenges include inadequate infrastructure, lack of learning material, and lack of professional training. Access to the internet and mobile network coverage is limited, and teachers and students may not be proficient in technology. To overcome these challenges, administrators suggest adopting digital literacy and education 4.0 techniques, financial resources for advanced technology adoption, and facilitating special internet packages for students and HEIs. However, resistance comes from students due to remoteness and poor IT backup. The study explored teachers' perceptions of blended learning, focusing on its flexibility, accessibility, and personalized learning. Teachers believed in offering professional training and Microsoft Office tools but faced challenges like internet and technology issues. Administrators supported blended learning, but faced infrastructure, learning material, and training issues. Most teachers used the Pedagogical content knowledge approach but faced challenges in analyzing student learning and online questioning.

The study explores the benefits of blended learning in higher education institutions, highlighting its personalized approach, flexibility, and easy access to learning materials. It suggests that institutions should invest in proper training, advanced teaching methodology, and technology to successfully implement blended learning, despite challenges such as inadequate infrastructure, slow internet connectivity, and technology costs. The study reveals that students in Islamabad universities are aware of blended learning and believe it is effective. However, challenges like lack of communication, funding, security problems, and digital infrastructure persist. Teachers' perceptions include linking blended learning with IT components, digital resources, and a constructive process. Factors affecting blended learning include student engagement, achievement, and perception. Institutions have sufficient facilities for blended learning, but challenges like inadequate infrastructure and perceptions of blended learning only being effective for social sciences require training.

Cost efficiency is also an important part that cannot be denied. Likewise, Islam at al., (2021) studied the social benefit of information communication technologies efficiency that provides capabilities for effective learning. In this present study, observation was carried out that all the stakeholders are aware of the term, methodology, and benefits of blended learning, but they feel that with the training and capacity building of teachers, this can be implemented more efficiently. Similarly, Caravias (2015) state a need to raise awareness of the different and distinctive national and institutional contexts teacher educators are working in, how they affect their practices, and their opportunities to develop professionally. The study highlights the challenges of blended learning in higher education, including academic unpreparedness and learning management systems adoption. It emphasizes the need for course designers to consider students-centered, training models, innovation balance, live interaction, cultural aspects, and digital resources, while prioritizing research and evaluation.

Theme 2: Perception of faculty members regarding availability or unavailability facilities for adopting blended learning

Most of them stated that new hires and young faculty members receive training as part of Professional Development. Additionally, they stated that "in the last two years, seven collective and numerous other departmental pieces of training have been conducted." "Teachers have almost always been provided with first-class teaching aids and facilities for online teaching," said another educator. However, some educators believe that their faculty members don't get nearly enough training. A teacher said, "None - most training focuses on face-to-face teaching and rarely addresses the blended learning approach." Moreover, blended learning is perceived by several educators as just online teaching.

Although staff and faculty are prepared to implement blended learning, a significant problem is student reluctance. In addition to qualified human resources and logistics, high-speed internet facilities should be made available at reasonable prices to guarantee success. For blended learning to be implemented successfully, instructors and students need specialized training, some educators see blended learning as useful and successful, while others see it as a hybrid kind of instruction. Given that it offers more flexibility than traditional classes, some teachers are hopeful that it will get better with time. They do, however, also recognize the dearth of resources and the requirement for increased time and resources. All things considered; blended learning offers instructors advantages as well as difficulties.

The study used Atlas T. I coded the qualitative data from 53 research interviews and open-ended questionnaires. The data was organized and interpreted, with 14 codes identified. The data was divided into facilities, perceptions, factors, and practices. Unclear codes were marked as unrelated. Fourteen codes were generated, with five primary codes and nine supporting codes examined more closely. The hybrid method to learning can be hampered by student engagement, internet oscillations, and infrastructure problems. Unsupervised and undirected, tech-dependent pupils could concentrate more on copying and pasting than grasping topics. Bergmann, (2012) indicated that educational institutions took benefit of the internet facilities and made their content material available for the learners; the assessment process was conducted online. Blended learning from the year 2000 till today increases its utility in education. From online, readily available content material to arranging/ attending webinars, video conferencing, and teacher-student interaction has become easy and flexible. Blended learning is timesaving and more learning-oriented, and it has positively reshaped traditional teaching methods. In Covid-19, blended learning was essential for awareness and tracking student performance. However, teachers and students need to be prepared, provide facilities, and train to enhance blended learning. Overall, blended learning positively affects student engagement, achievement, and perception.

Theme 3: Perception of faculty members for adopting blended learning at Higher education institutions

Blended learning, along with students and teachers, benefits the head of the department by tracking students' records and teaching instructional material. Likewise, Coltea (2022) believed that many

educators believed that technology helps teachers improve their pedagogy for learning, not the replacement of teachers. Similarly, Cai et al., (2015) stated that blended learning improves pedagogy, flexibility, and cost-effectiveness.

The study explores the perception of professional learning experiences using blended learning methodologies. Teachers found that blended learning enhances pro-activeness in teaching methods, benefits students by enhancing personalized learning, and is a time-saving alternative to large classes. It also promotes deeper learning, reduces stress, and increases student satisfaction. Teachers also noted that blended learning is suitable for working professionals as it allows participants to explore material and results in meaningful discussions. Some teachers view blended learning as an asynchronous method, while others view it as a hybrid mode of learning. Some teachers are optimistic about the benefits of blended learning, but they also acknowledge the need for improved time and resource allocation. Overall, teachers believe blended learning saves time, cost, and resources, enhances understanding, and is the future. They recommend conducting at least 3-4 sessions online and using the best resources available on the Learning Management System.

The study explores the perception of professional learning experiences using blended learning methodologies. Teachers found that blended learning enhances pro-activeness, personalized learning, and timesaving, promoting deeper learning, reducing stress, and increasing student satisfaction. It is suitable for working professionals and allows for meaningful discussions. Blended learning is seen as the future, offering flexibility, cost-efficiency, and improved understanding. During the COVID-19 pandemic, it has become a crucial aspect of the teaching profession, offering online activities, exercises, quizzes, information gaps, and vocabulary games. It is widely used and is being developed in courses in the field. Blended learning is a popular approach that promotes deeper learning, reduced stress, and increased student satisfaction. Teachers believe that it is less expensive, more affordable, and saves time. However, some teachers believe that it offers flexibility in availability, but there is a need for ethical guidelines to avoid negative factors. Regular feedback through LMS can motivate students to use reading material, discussion forums, and quizzes. Technological literacy, the accurate ratio of in-person and online learning, attitude towards learning, access to technology, and faculty support are also important factors.

Theme 4: Practices of Blended Learning at Higher Education

Blended learning, a technology-driven approach, has significantly impacted traditional teaching methods, especially during the Covid-19 pandemic. It offers flexibility, saves time, cost, and resources, and enhances understanding. Teachers believe blended learning benefits students, reduces stress, and increases satisfaction. It is suitable for working professionals and involves multiple platforms for learning, emphasizing reading, writing, and discussion. Interactive boards are essential for teaching science subjects and professional degrees. Future Ready Skills activities are crucial for a successful blended learning experience. Blended learning requires physical presence between teacher and student, but not all students have access to devices or internet.

Experiential learning and resource orientation are essential for successful blended learning. Blended and online learning have helped teachers maintain their education systems during the pandemic. During the COVID-19 pandemic, blended learning has become a mandatory part of the teaching profession, offering a flexible and engaging approach to education. Teachers believe that this method helps identify students' strengths and weaknesses, enabling them to better support them. Blended learning allows for visualization and tracking of student progress, making it easier for teachers to identify areas of improvement. Some teachers argue that blended learning is more economical and efficient than face-to-face learning, particularly for working-class teachers.

Blended learning involves multiple platforms for learning, emphasizing the importance of engaging students in reading, writing, and discussion. Interactive boards are essential for teaching science subjects and professional degrees, while Future Ready Skills activities such as creating, collaborating, communicating, connecting, and using critical thinking are crucial for a successful blended learning experience. Teachers believe that blended learning offers self-paced guidance and personalized learning experiences, enhancing degree programs and learning experiences. However, not all students have access to devices or internet access. Teachers believe that blended learning allows learners to demonstrate their learning capacities through online and face-to-face activities, regular feedback, and experiential learning. Blended learning, such as Massive Online Open Courses (MOOCs) and Global Online Courses (GOCs), can accelerate learning through online assessment tools, student interactions, and data-driven instruction. Proper adoption of technology can enhance professional development. Blended schools can transform from a closed model to one where students can connect with experts and mentors.

Blended learning in higher education is primarily achieved using tools like Zoom and Google Classroom, but other technologies like Microsoft Teams and flipped classrooms can also be used. Teachers need technical support, fast-speed internet, technological literacy, updates on the Learning Management System, and a tablet for teaching assistants to successfully implement blended learning. They should be creative, provide relevant study materials, accept all students, stay updated, handle online exams, provide peer support, and use various teaching methods. Projectors and constant support are also essential for success. Blended learning can be induced through vicarious reinforcement and motivation, with students encouraged to use the latest technology while maintaining a balance. Teachers suggest using online resources like Google images, YouTube videos, and ppts to engage students in lesson learning, feedback response, and environmental awareness. Personalization of students' learning experiences requires guidance from instructors and can be achieved through learning information systems or databases. Teachers must possess knowledge of visual programs, technology, and blended learning, utilize the latest research and best practices, possess computer and internet skills, be knowledgeable about the subject and technology, and be diplomatic with students.

5. Conclusion
It was concluded that the importance of integrating blended learning and I.T. components in higher education institutions to improve personalized learning. Teachers are optimistic about the potential

benefits of blended learning, with an emphasis on enhancing professional learning among students. However, they face challenges such as internet and electricity issues. To successfully adopt blended learning, administrators must focus on capacity building and equip teachers with the necessary skills.

In conclusion, blended learning is a popular approach in education, promoting deeper learning, reducing stress, and increasing student satisfaction. However, there is a need for specific ethical guidelines to avoid negative aspects. Regular feedback through LMS can motivate students to use reading materials and participate in discussions, while technological literacy is crucial. Blended courses offer a unique opportunity to move beyond midterms and finals, combining online instruction with face-to-face instruction. Factors affecting blended learning positively include student engagement, achievement, and perception. However, teachers often lack the necessary teaching capacity to effectively implement blended learning. All respondents have sufficient facilities at their institutions, and they should utilize them to make the approach more effective.

6. Recommendations

1. The significance of raising awareness of blended learning, offering resources to students, researching its effects, making sure teachers are available for discussions, implementing equal amounts of in-person and online instruction, putting in place a contract on blended learning management, funding dependable internet access, and offering administrative support.
2. Institutions may overcome obstacles by boosting work quality, implementing better policies and programmes, and offering sufficient training for implementing blended learning at higher education institutions.
3. Engaging material, recorded lectures with embedded questions, the use of visually appealing technologies like games, the hiring of skilled professors, and engaging content are all necessary to support academic achievement in blended learning courses. It is imperative that educators stay up to speed, guarantee hardware resources are accessible, and offer introductory instruction to both educators and learners.
4. Universities may execute a contract for the administration of blended learning, set aside money for dependable internet access, and offer sufficient administrative assistance.

7. Limitations of the Study

This study was delimited to the institutions situated in Islamabad Capital Territory such as; International Islamic University, Allama Iqbal open university, Bahria University, National University of Modern Languages, Quaid-e-Azam University, and Foundation University Islamabad Considering institutions have Learning Management systems.

8. Acknowledgment

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