Teachers' Intentions & Challenges concerning E-Assessment at the Virtual University of Pakistan: A Phenomenological Study

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Abstract

Although e-assessment has been identified as a suitable practice for teachers assessing students' learning in higher education settings, it requires proper planning, patience, and foresight to design e-assessment programs. This qualitative research study explored VU teachers' perceptions of the different methods used for e-assessment of students and interpreted the teachers' perceptions on the effectiveness of e-assessment in evaluating students' performance. The problem lies with administrative limitations of proper tools and data, as well as the student attitude that allows for plagiarism. The study gives suggestions for the e-assessment promotion that focus on both teachers and students. These include training programs for both parties, as well as promotion of its efficiency to abate fears regarding the program. Further, it tackles student interest and aims to shed light on the enhancement of student learning processes.

Keywords: University Teachers; Intentions; E-Assessment; Online Teaching; Covid-19; Phenomenology.

Introduction

This research aspires to explore the teachers' perspective of e-assessment practices at the Virtual University (VU) in Pakistan. Assessment is an integral constituent of all educational processes, which not only gauges students' performance but also validates the validity of the curriculum, the instructional practices, the influences on the intended learning outcomes, and the incorporation of distinct resources.

Assessment, within higher education, is a critical aspect of the teaching and learning process at any institution (Rawlusyk, 2020). With the emergence of ICT, some common mainstream assessment practices were substituted with e-assessments to preserve the need for time and varying other factors. E-assessments, coinciding with the rapid incline of technology, were becoming an optimal resource for students and teachers. Whereas at present, the Covid-19 pandemic has led to the urgent and immediate inclusion of e-assessment in nearly all educational institutions across the world, assuming the pandemic didn't result in institutional closure (Gamage, Silva, & Gunawardhana, 2020; Sharjeel, Muhammad, & Waqar, 2022). The immediate replacement of assessment with e-assessment has led to the dire problems of delaying and canceling summative assessments at the national and international levels, which has decelerated the educational procedures. These unexpected changes have forced those within education to analyze which learning experience is more desirable and better suited for sustainable learning.

Worldwide traditional assessment practices had been prevalent from their origin till the outbreak of Covid-19. Already being a developing country, Pakistan's education system was coping with diverse challenges ranging from low literacy rate to the application of traditional pen and paper assessments, which now with Covid-19 has aggravated by decelerating the pace of all educational processes due to lack of resources (Arshad, Muhammad, & Waqar, 2022). Hence, the situation needs immediate attention to overcome these persistent difficulties and divert its course towards success. In fact, during the outbreak of Covid-19 many developed nations are ahead of us in every field because

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they have utilized the necessary tools of modern technology to provide quality education in a revolutionary manner, whereas the developing countries are still trying to keep up the pace to achieve and maintain international standards of education. One of Pakistan's universities that proceeds to provide education in this pandemic situation is the VU. This university was inaugurated in 2002, and since then, it has been imparting education in e-learning mode. The virtual university was the first one to use an online Learning Management System (LMS) to teach and assess students, as the VU is Pakistan's first university-based completely on modern Information and Communication Technologies (Malik, 2017).

The ICT has led to the transformation of all educational institutes around the globe by acquainting e-learning, blended learning, and then e-assessment. Initially, e-assessment can be defined as an Automatic grader, which utilizes a computer to assess students' programming assignments, then advancing to Mathematics and Chemistry. Later in the 1990s, the e-assessment used the internet, extranet, and intranet networking systems to carry out assessments. Further, it led to the use of personalized Web-based dynamic assessment, and the item construction techniques are valuable for the strategy designs of self-assessment, self-directed learning, and self-regulated learning in an e-learning environment (Wang & Kubincová, 2017). The e-assessment process is more all-inclusive as it considers all the actions, works, reports, portfolios, and forums developed (Kundu & Bej, 2021). However, e-assessment practices have been a debatable issue in e-learning due to some drawbacks, as automatic test correction can only be used to grade short answer questions. Hence, the automatic test correction tool is not applicable for open-ended questions. Further, lag in technical issues resists the use of e-assessment practices to support the digital learning environment.

The gradual process of technology integration by the educators escalated with the occurrence of Covid-19, not only within developed countries but also in developing nations, to keep educational activities up and running. Abundant resources made it possible for the teachers of progressive nations to adapt the creative teaching-learning activities and innovative e-assessment practices with some challenges, whereas the developing nations struggled with insufficient resources and substandard network infrastructure. Teachers with inadequate knowledge of technological assessment tools were not able to facilitate students in creating an e-learning environment and the proper implication of e-assessment techniques (Tariq, Dilawar, & Muhammad, 2019). Similarly, most of the teachers in Pakistan were not able to use technological tools due to a lack of knowledge. Hence, it was difficult for educators to use advanced e-assessment tools in this pandemic situation. Nevertheless, VU teachers managed to carry out e-learning and formative e-assessment with ease but could not take midterm examinations due to the closure of the campuses. Instead, the teachers held a grand quiz with an assignment as an alternative to the midterm, which affected the quality.

At the start of Covid-19, initially, all education institutes were closed, but later, HEC announced that the universities should shift to e-learning mode, which led to the initiation of online classes through Zoom software, and the exams were conducted online. Teachers were not completely aware of the e-assessment practices but still managed to conduct online exams. On the other hand, universities paved the way in pandemics by carrying out educational functions with some constraints. Educators are considered the leaders who inspire the students to learn and apply knowledge in the best possible way, but the current circumstances may have hindered the teachers' abilities to conduct e-assessment (Hani, Naz, & Muhammad, 2021; Naveed, Muhammad, & Siddiqui, 2022; Naz, Hani, & Muhammad, 2020). It can be argued that a number of significant gaps still exist even with the substantial effort and attention that has been devoted to ICT adoption research in education (Al Hashlamoun, 2017). The research at hand thus begs the question: What perspectives do teachers hold on e-assessments as an integrated university practice? What are the challenges it presents, and how effective is it for student learning?

Review of Studies

This section reviews the findings of the study conducted in the Pakistani context to explore the e-assessment phenomena, but no educational institute in Pakistan conducted e-assessments except for an exclusive higher education institute named the VU of Pakistan. The VU, Pakistan's first university based completely on modern information and communication technologies, was established by the Government as a public sector, not-for-profit institution (Sibghatullah, Kamran, & Siddiqui, 2016). Thus, there are not many types of research carried out on e-assessment in the Pakistani context. A review of these minimal studies is presented below.

The previous studies reveal that the project of VU of Pakistan was approved and formally started in 2001. According to Malik's (2017) paper on the background and evolution of Virtual universities, it was noted in the early 2000s that an acute shortage of qualified faculty and capacity in existing institutions was compounded by the growing youth sector in Pakistan (Malik, 2017). These factors acted as driving forces for establishing a VU in Pakistan so that meaningful results would be attainable for those in the tertiary/higher education field.

The first design component of VU involved courses being heavily based on audio-video materials to emulate the conventional face-to-face instruction method. It also involved having qualified faculty already affiliated with existing institutions to provide distance education. A second design component of VU had an effective method to deliver learning content. In this case, LMS was utilized as a platform to provide content, generate discussion, and allow for interaction. Thus, the usual build-versus-buy debate eventually tilted toward the build option, and the university's own IT team was tasked with developing a fully customized LMS (Malik, 2017). The third design component of VU was targeting student access issues to LMS by equipping multiple campuses with broadband connectivity and computers. Then, there was no limitation on where a student could post his or her questions because no locking mechanism was provided. As a result, students usually posted their queries on the very first discussion board available for each course, which always turned out to be the board for the first lecture. All other discussion boards remained empty or sparsely populated (Malik, 2017). Hence, another design choice of VU was implementing effective student-teacher interaction through an online network of tutors being available on the discussion boards of LMS. In terms of the VU's most crucial design decision, it followed a model of large public semester examinations for assessment. This would require a student's physical appearance with identity verification at a designated examination location. Finally, the last design choice of VU was its management system– which would be information technology-based systems and paper records.

While all these design choices were made to make the VU what it is at present, limitations such as low bandwidth, minimal access to computers, low IT literacy, questionable quality of tutoring, student schedules, and inadequacies of the LMS system proposed challenges to the growing university. For example,

Students, as well as tutors, would have to be proficient at typing since they would have to pose their questions and answers by accessing the discussion boards of the LMS. Of course, the reality was that students and tutors were not keyboard experts and had a steep learning curve ahead of them, both in terms of typing as well as in mastering the various features of the LMS (Malik, 2017).

In a qualitative design study exploring 40 of Pakistan's ESL students' perspectives on e-assessment during Covid-19, researchers found that learners in the English department at the University of Central Punjab preferred in-person classroom assessments over e-assessments due to the belief that such assessments are more effective than online assessments. According to T. Saleem, Saleem, and Batool (2021), this study using 40 students' perspectives was conducted non-randomly through convenience sampling, therefore lacking generalizability and validity. Further, the interview format of this study which focused on students' preferences, was not very extensive in that the researchers did not focus on the reasoning and justifications behind the students' preferences.

A paper by Sibghatullah et al. (2016) examined how the main challenge of the VU of Pakistan since its establishment has been a negative public perception with people believing that its university, faculty, and education are sub-standard. However, to address these issues, the VU has taken three important yet effective steps to reposition its reputation in the public eye (Sibghatullah et al., 2016). These three crucial steps involved the VU reaching out to its successful graduates with jobs in the corporate sector for endorsements, moving towards effectively placed and recognizable color advertisements, and changing the offerings of their program to be perceived as having a higher quality of education. These three steps taken by the VU of Pakistan were proven effective methods to bolster positive perceptions by the subsequent perception surveys after these changes were made.

A case study by Perveen (2016) examined the impact on students of language learning synchronously and asynchronously in the VU of Pakistan. It was found that a blend of synchronous and asynchronous learning paradigms is ideal for language learning. Through random sampling, courses were selected at the VU to be monitored, and data were collected by observing student communication and performance on the given channels, evaluating students' opinions on the GDB, and evaluating the students' responses to a survey questionnaire. Essentially, the findings of Perveen's

study exemplify that students preferred a blend of the two modes of learning in terms of language learning at the VU of Pakistan and that these results can be generalized due it its large sample size. However, Perveen's study does not investigate why and when students preferred which method, and it doesn't address how a blended teaching curriculum would be possible to address the preferences of the students.

Niwaz, Khan, and Khan (2013) chose 24 graduate students of the VU that were working in managerial posts in different multinational companies through a chain sampling technique to evaluate the job placement process, job competition, and job satisfaction they faced. The researchers collected data through an interview protocol and found that well-groomed graduates of the VU faced competition from many big-name universities but that they had no problem finding proper jobs (Niwaz et al., 2013). While an enlightening study on the post-graduate lives of students at the VU, this study lacks validity and reliability due to the strong bias present in the researchers' study design. The researchers did not randomly select the VU graduates. Instead, they chose a small sample of computer science graduates that already had great jobs and then proceeded to interview them about how they got and perceived their jobs. Perhaps if the researchers had randomly selected many graduate students of the VU with different degrees to interview, the researchers might have been able to present a more holistic view of job placement, job competition, and job satisfaction than graduate students of the VU face.

Following limitations were found in the previous research. Most of the studies are conducted from the student's perspective. The prior research on e-assessment was carried out in an international context. Further, minimal research was undertaken in relation to e-assessment practices in the Pakistani context. Thus, this research is conducted to study teachers' perceptions of e-assessment practices to explore this phenomenon from a distinct perspective and fill the gap in the literature.

Methods

The most appropriate research design which can assist in exploring the phenomena of e-assessment through teachers' perspectives was a phenomenological case study. Here phenomenological approach, fused with the case study method, allows the researcher to come to understand or make sense of intricate human experiences (Creswell & Poth, 2018; Thomas, 2021; Yin, 2018). The main reason for choosing this design is the phenomena being explored were initially experienced by the teachers at the VU of Pakistan. The present research focuses on the situation and the perspectives of those participants who experienced it.

The researcher selected the participants through a criterion sampling technique for this study (Khalid, Muhammad, & Siddiqui, 2022; Khawaja, Muhammad, & Siddiqui, 2022). Criterion sampling is used in which the sample meets a certain criterion as the teachers who have at least one or more than one year of experience in using e-assessment. In total, 12 teachers from a university were selected who are competent in using e-assessment practices. These selected university teachers were from various departments in the VU of Pakistan, Lahore. Following criteria were used to decide the inclusion of participants in this study: The participant had a minimum of one or more years of experience in using e-assessment, the participant was a faculty member of VU, and the participant volunteered to be interviewed.

Table 1: Demographic information of the participants

Participant	Gender	Academic Qualification	Experience (Years)
1	Male	MS Media and Communication Studies	11
2	Male	MPhil Education	2
3	Female	Ph.D. Mass Communication	14
4	Female	Ph.D. Education	5
5	Female	BS Mass Communication	2
6	Male	MPhil Applied Linguistics	5
7	Female	MPhil Education	2
8	Male	MS Mass Communication	3
9	Male	Ph.D. Statistics	14
10	Female	MPhil Education	2.5
11	Female	MS English Literature	5
12	Male	MPhil Applied Statistics	3

The qualitative research design was used with a sample size of 12 university teachers from a higher education institution in Lahore. Semi-structured interviews were conducted with the selected teachers. Interview data were analyzed using qualitative thematic analysis (Yasmin, Muhammad, & Siddiqui, 2021).

Teachers' Intentions regarding E-assessment

The findings revealed the positive interests of teachers in e-assessment, but with minimal managerial support, the teachers were unable to use various e-assessment tools for collaborative, peer and interactive e-assessment.

Teachers at VU seemed to be well acquainted with the term e-assessment occurring in their university. However, the intentions of teachers regarding e-assessment differed slightly based on their experience, perceptions, and outcomes. The opinions of teachers related to the e-assessment are the premises to reveal the elucidations of the phenomena being studied by considering participant's simplistic views as "I think e-assessment is carried out with the assistance of a computer or electronically and online, which suspends the use of paper" (Participant 4). Further, participants two, five and eleven had similar thoughts regarding e-assessment. In addition to this, a participant considers the e-assessment phenomenon to be unique by explaining it further, "E-assessment is different, as everything is on the system and utilizes various software to conduct a formative and summative assessment" (Participant 1).

Another participant is of the view that this phenomenon emerged from e-learning and required certain skills to practice it, such as, "E-assessment means e-learning as it occurs through computational skills and ICT tools" (Participant 6). Moreover, other participants perceive e-assessment to proceed in steps to support the evaluation of the student performance. As one participant reveals, "I think e-assessment is carried out in a systematic way which enables you to assess the student's level of understanding" (Participant 8).

One of the participants, who joined the university fourteen years ago in 2006, had similar opinions about e-assessment as mentioned by the former participants.

At first, the e-learning and e-assessment were odd to me because it is identical to an office job where you must sit in front of a computer to carry out all the teaching and assessment processes that restrict the two-way interaction. Hence, it voided the feeling of being a teacher as teaching is a two-way process. The e-assessment processes were very raw, and you can say that I have seen the university develop to what it is today. Earlier, we were part of the management department, but later, the departments were segregated with the advancement of the university. In e-assessment, we used a platform called LMS on which all the formative assessments were carried out. (Participant 3)

Hence, it can be considered that all the participants have primitive knowledge with reference to e-assessment and shared similar views one way or the other. However, some participants extended the view of the first, second, and eleventh participants by saying that the phenomena have surfaced from e-learning and integration of diverse tools to conduct e-assessment, which gives a better perspective on executing e-assessment. Therefore, these primitive concepts of the teachers ensure to lead to the depths of phenomena being explored as e-assessment. The characteristics further disseminate the teachers' apprehension about the effectiveness of e-assessment that is voiced by the instructors as:

VU believes in quality. Thus, quality and affordability are the prime focus of the university. The programs maintain the quality of the content and e-assessment practices at an affordable fee. Further, e-assessments in our university are time bound as the system has an inbuilt capacity to fix the timeframe of formative assessments and exams. (Participant 1)

Here, affordability and being time-bound are considered important characteristics. Similarly, a teacher confers that along with the quiz, even the exams are created from question banks, and the identities of the students are unknown to teachers. The other fundamental attribute of e-assessment is the utilization of rubrics since it defines the criteria or parameters of marking an assessment. These features improve the effectiveness of e-assessment:

Our setup has exceptional characteristics which make our e-exam preferable to the conventional system. The exam is also question bank based; hence our students do not receive the same exam, whereas they get an individual personalized paper. Besides, in terms of marking exams, the essential characteristic used is anonymity. We do not mark the exam of a

student individually. Instead, we mark a specific question one by one on all exams. While checking, the teachers have no idea of whose paper is being marked. Even if the teachers want to, they still cannot favor anyone. In addition, rubrics are important to include in e-assessment because it is another essential characteristic. (Participant 3)

Whereas another participant perspective considers reliability and validity to be the characteristics of an effective e-assessment as:

Characteristics of e-assessment are that the questions designed are reliable and valid. These factors count a lot, but in e-assessment, teachers particularly try their best to create reliable and valid questions. Thus, the question is reviewed and critiqued by a fellow experienced teacher. (Participant 6)

Aims are deemed to be the inaugural step of any process, whether it is with regard to e-assessment practices or any other phenomena. Without an aim, nothing can be achieved; the aim acts as a backbone on which the teaching structure stands, including e-assessment and its outcomes. Therefore, e-assessment practices are all designed according to their aims. Aims are the major aspect around which all the teaching-learning activities and e-assessment practices revolve, such as:

Specifically, in e-assessment, the instrument designed to assess students must be clear, concise, and coherent, and the language used should be simple. Secondly, the higher order thinking skills of the students will be developed to think critically, and students will be able to implement their knowledge to resolve real-world problems. (Participant 4)

Likewise, other participants share similar views on aims regarding e-assessment as mentioned:

The aim of e-assessment is that the students will be able to think critically and will have creative ideas to resolve various problems. The student's performance in e-assessment will not only be the grades or numbers, but it defines students' personality, knowledge, and skills as a whole. Hence, the student's performance will impact their careers and may indicate their contribution to society and the country. (Participant 1)

The benefit of knowledge is that it will be utilized by the students to bring a positive change in students' personalities and will bring a change in society. (Participant 3)

Thus, aims help teachers to move in the right direction as tasks are planned and more systematic in our system, so the instructors try to follow prearranged objectives. Each course has well-defined outcomes and objectives.

Challenges regarding E-assessment

The obstacles in transacting e-assessment practices are stated by the faculty as language gap, system barriers, plagiarism, student deception, student enrollment number and weak internet connection other than this student's lack of conceptual understanding to answer the question. These challenges negatively affect the teachers' outcomes regarding e-assessment. Most of the teachers consider plagiarism, student enrollment number and student readiness to be the central challenges of e-assessment, whereas student deception and student diversity were discussed by a few teachers.

Student deception

Some teachers revealed that students have a non-serious attitude towards their studies and are unaware of basic rules of communication. Further, the teacher reveals that it is hard to verify if the assignment was completed by the enrolled students or someone else. As expressed by the teacher:

There is no way to ensure that the assignment is being submitted to the teacher, whether it was made by the same person or not. The students can ask somebody else to make it for them and then just submit it online, which is a problem. (Participant 11)

Student enrolment number

Most of the teachers conversed that a significant number of students are enrolled from various regions of Pakistan. Large student enrollment increases the teacher workload, so it is difficult for the teacher to answer all the queries of the students. Further, it becomes difficult for the teacher to give detailed feedback, which may affect the quality. As explained by the teachers: "Moreover, the data received in the bulk of the assignments from the students is difficult to grade" (Participant 5). And "The quality work cannot be maintained with the large number of students enrolled in a course because it is hard for the teacher to respond to their queries with effective answers eventuating in student dissatisfaction" (Participant 7). In addition, another participant reported, "Likewise, it is difficult to

cope with a large number of students and to answer their queries regarding e-assessment" (Participant 4).

Plagiarism

Plagiarism is the major problem that the teachers encounter, and students do not even put effort into writing the answer with their own thinking, which may at least lead them to gain half of the marks instead of gaining zero through copying from links. Most of the teachers share the same views regarding plagiarism, as mentioned by this teacher:

> There are platforms where students provide solutions to the assignments as a public service, and some are even paid. The teachers have tried to change the form of assignments, but still, students come up with an easy way rather than putting effort into learning. Some students believe that the answers taken from other resources are the best way, or they just do not want to put effort. The students who use such means of plagiarism suffer; the ones who understand try to improve, but some don't. All these online platforms that are promoting plagiarism are a huge problem, and these constraints affect the learning outcomes. (Participant 3)

Student diversity

The teachers encounter diverse challenges. One among them is that the students from distinct backgrounds and age groups are enrolled in a course as some have joined after intermediate, some after bachelor and some are enrolled in dual degree programs. Thus, it is strenuous for the teachers to cope with such multiethnic scholars, as expressed by an instructor:

> It is hard to manage and assess students from diverse backgrounds. The older students have more experience and exposure than the teachers, so their queries and expectations are comparably challenging to cope with, which forces us to think out of the box. Though shifting is difficult, we improve our e-assessment practices by assigning different project topics while all other assignments remain the same for every student. This indicates the struggle of teachers for a better outcome. (Participant 1)

The teachers are unable to interpret the real meaning of the student queries because we have no idea about the student's backgrounds, perspectives, and demographic information. Thus, the teacher's reply may not satisfy the students. As a result, it takes longer for the teacher to resolve students' problems.

Student readiness

Most of the teachers discussed that new registrations of students in the university are enlightened about the e-learning and e-assessment practices through orientation, but still, some students are incompetent to use e-assessment as:

> The teacher highlighted the problems, as students were not able to understand teachers' questions and they were unable to use a computer efficiently. The students are incapable of interacting with teachers through a computer, and they have no idea about typing an answer for exam purposes. The students' incapability of typing may affect their results because the exams are time-bound, and slow typing speed would not allow the students to complete their paper in time even if they know the answers. The students are not prepared for universities as they directly ask the teacher to answer the question; they do not put effort into understanding the question. (Participant 2)

> Hence, most of the teachers indicated that intermediate students are not prepared to execute e-assessment strategies. Nevertheless, typing skill is a prerequisite for e-assessment. Further, another teacher did not experience problems at their end but instead encountered difficulties from the students' side, as mentioned:

> The students enrolled after intermediate are unable to understand the questions and have no idea of how to answer a question as they are accustomed to rote learning. This is the reason these students find an easy way out of copying the answers, which causes deviation in the outcome of the e-assessment. (Participant 1)

> The language barrier is another factor that negatively affects the e-assessment outcomes and resists effective communication among all stakeholders. As the professor highlights:

> If the student is unable to understand the question, then definitely they would not give the right answer. Although the lectures are bilingually delivered for students to understand the concept, they have to give the exam in English. Hence, the students face problems in

expressing themselves, and the pressure of writing the answer in English resists a student's progress. (Participant 3)

Limitations of e-assessment

Most of the teachers' discussed that the university does not allow conducting more than one project-based e-assessment, and collaborative e-assessment cannot carry due to insufficient resources. Further, teachers conversed that mostly the software, hardware, and network issues create a problem in e-assessment; otherwise, it works well. The teacher mentions that there is no face-to-face interaction among students or students and teachers, which restricts the two-way process of learning.

> The university does not have a license for Adobe Connect Session, so it has not been in practice for two and a half years. Because of this, the teachers are unable to conduct interactive sessions with students. The teacher cannot give a very extensive or broad topic which will take a lot of time. These are the constraints that the teachers have to think about before designing questions and evaluating the students. (Participant 11)

> At first, the plagiarism is checked through Turnitin software, but the complete data cannot be uploaded to the software as there is a limit. This makes the task complicated for a teacher. Furthermore, the projects assigned by the teachers to the students cannot be assisted if students encounter problems in using the tools to create the video. (Participant 5)

Although most teachers encounter various challenges while executing e-assessment practices, they still consider them essential. Thus, the reasons explained by the teachers for their motivation are: "I am motivated to use e-assessment because I love to explore novel ideas and software" (Participant 10). Moreover, another participant reported, "I can say that my online teaching experience in this university is amazing, or it is the need for time" (Participant 8). Yet, another participant reported, "I am satisfied with these activities, and we are still looking to improve" (Participant 1). The teachers are motivated and influenced by the emerging trend of the inclusion of ICT in education. Consequently, the teacher prefers e-assessment practices to cope with the current scenario of Covid-19, which led to the closure of educational institutes.

Hence, it is indicated that most teachers prefer e-assessment over the conventional mode due to the need for time and consider it to be innovative. However, some teachers preferred a blended model, which can be a midway or balanced approach to education.

> The teacher is not motivated to use e-assessment as it burdens the teacher to sit in front of the screen the whole day, make questions, upload assignments, grade them, and give remarks; thus, the asynchronous mode is exhausting for the teacher (Participant 10).

> I prefer blending learning because it will allow me to have face-to-face interaction with students, and I can have engaging discussions this way. (Participant 11)

Discussion

The results of a phenomenological method with a sample size of 12 instructors from VU indicated that teachers have a positive interest in e-assessment but that they are unable to employ different e-assessment technologies for collaborative, peer, and interactive e-assessment due to a lack of management support. This reveals that most teachers are satisfied and motivated to execute e-assessment practices. However, almost all the teachers' discussed the university's limitations regarding e-assessment.

While the inclusivity and holistic nature of the e-assessment process, it still has its drawbacks. The study found that while there was an understanding of the diverse tools available to gain knowledge of e-assessments, only a few participants noted using them to gain greater insight. While studies point to a preference for in-person teaching (Saleem, Saleem & Batool, 2021), participants were found to respect the method, citing it as the "need for the time" as it was an affordable resource that delivered quality. Concerns that online universities such as VU being substandard (Sibghatullah et al., 2016) were waived by participants as they found the method diverse, unique and effective for quality.

It is clear that most teachers favor e-assessment over the traditional form since it saves time and is seen as creative. As Mumtaz et al.'s 2017 study elucidate, a mixed model, which may be a middle ground or balanced approach to teaching, was favored by instructors of blended learning, implementing both in-person and e-learning. Similarly, in Perveen's study in 2016, a case study exemplified how students prefer a blended method. The research here fills the gaps in the literature by showing how it enhances student learning by allowing face-to-face interaction while simultaneously

allowing the grading of instruments to be done via a rubric. This system gives anonymity to students and helps teachers evade bias.

There were a significant number of challenges met by the teachers, such as that plagiarism and the non-serious attitude of students – there was difficulty in ensuring the student themselves had worked on the assignment at hand. There is incompetence in their use of e-assessments as they lack the interest needed to learn. The literature asserted the shortage of qualified faculty in the face of the ever-increasing students in traditional universities, a problem VU was created to combat (Malik, 2017), but even within e-learning, this number of students cannot be handled. Administratively, there was the issue of student numbers increasing without any other changes to existing challenges. Feedback and quality are affected as a result. There are many different students from various areas as well, each with a distinct background and challenge, which is difficult for teachers to become accustomed to and satisfy accordingly. Finally, the e-assessment itself has its problems – teachers could not conduct more than one project and one collaborative e-assessment at a time due to an administrative failure to provide resources. The lack of face-to-face learning also posed a deep problem, which Malik elucidated in 2017.

Finally, the gaps in the literature that were mainly due to a lack of teacher perspective were filled. Studies mainly focused on student perspectives (Perveen, 2016) but failed to include the teacher's opinions. By providing aims for teachers or following and direct tasks, the participants displayed an interest and preference for e-assessments.

Conclusion

E-assessment techniques are gaining recognition in higher education institutes to support the teachers' and students' learning environments in this fast-paced era. The analysis and findings show that most teachers prefer e-assessment, but a large number of student enrolments increases teachers' workload, and the university limits the utilization of e-assessment tools, which hinders teachers' performance. Small sample size and time constraints are the limitations of the study. Future researchers can carry out the research with an appropriate sample size which will give them an opportunity to explore the topic in more detail and help them generalize the results. ICT skills can only be developed through hands-on experience. Thus, the management personnel will be able to increase their efforts to arrange professional development courses for the provision of hands-on experience to the teachers with ICT skills.

Educational planners, policymakers, and managers in the field of education will become well acquainted with the existing challenges faced by the teachers while using e-assessment. They must be able to facilitate the teachers through establishing feasible policies, designing workable frameworks, and organizing workshops on diverse tools and methods used in e-assessment (Pirzada, Muhammad, & Zaka, 2021; A. Saleem, Muhammad, & Masood, 2019; Zaka & Muhammad, 2021). In addition to this, guidelines must be provided for the proper implementation of e-assessment in higher education. Frequent evaluations will enable the managerial personnel to assess and ensure the teachers' ability to use e-assessment to gauge students' learning outcomes and progress. Even then, if a teacher is unable to use e-assessment, they will be supported by managerial and IT teams to overcome the barriers to using it.

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