THE EFFECTIVENESS OF E-ASSESSMENT OF EAP COURSES AMID COVID-19: A STUDY OF STUDENTS' AND TEACHERS' PERCEPTION AT TERTIARY LEVEL

By

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A thesis submitted to Brac Institute of Languages in partial fulfillment of the requirements for the degree of
Master of Arts in TESOL

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Declaration

It is hereby declared that

1. The thesis submitted is my own original work while completing degree at Brac University.
2. The thesis does not contain material previously published or written by a third party, except where this is appropriately cited through full and accurate referencing.
3. The thesis does not contain material which has been accepted, or submitted, for any other degree or diploma at a university or other institution.
4. I have acknowledged all main sources of help.

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Ethics Statement

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Abstract

Conducting online courses is a common phenomenon in the developed countries. It is not a common practice in a developing country like Bangladesh. However, due to COVID-19 pandemic, government of Bangladesh had to shut down all the educational institutions. Thus, teachers had to bring a dramatic transmission and within a short amount of time shifted from offline to online classes. But the researchers and scholars all over the country raise questions regarding the effectiveness of e-assessment as assessments are required to portray the actual scenario of students' learning. The current study aims to find out to what extent the e-assessments are effective. To facilitate, 30 students and 4 teachers from 4 privately-run universities of Dhaka virtually participated in this study. Teachers' responses are analyzed in light of Krashen's *Comprehensible Input Hypothesis* (i+1) and Vygotsky's concept of *Zone of Proximal Development* (ZPD).The findings show that although teachers can ensure one of the characteristics of good assessment, validity, the remaining ones reliability and practicality are difficult to incorporate due to the presence of the limitations such as e-cheating and technical glitches. In contrast, teachers find e-assessment as an advantage in terms of exchanging feedback.

Keywords: E-assessment; COVID-19; EAP Courses; Validity; Reliability; Practicality

Definition of the key terms

E-assessment: E-assessment refers to the use of "digital learning technology to manage and deliver various kinds of assessment to assess learners' knowledge and skills virtually" (Chen & Tseng, 2019, p. 2).

Validity: Validity refers to the character as to what extent an assessment measures what it is supposed to measure (Coombe, 2009).

Reliability: Reliability is the stability of assessment scores assessed at different times (Huges, 2003)

Practicality: Practicality refers to resources available to teachers and learners of language assessments to complete the "processes of developing, administering, scoring, and using their assessments" (Khan, 2018, p. 34)

Dedication

I cannot find a better way to thank two wonderful souls

Radia Masood Apu

&

Lubaba Sanjana Miss

for being my constant support, stress reliever and true mentor. I will be forever grateful for your valuable time and wise words that kept me going. Thank you for accepting me the way I am. You are precious to me.

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EAP: English for Academic Purposes

F2F: Face to Face

Chapter 1

1.1 Introduction

In the 20th century, classroom assessment was considered as a mechanism that provided an index of students' learning--testing students' knowledge of the materials and judging students' achievement based on what teachers' had taught (Sangle et al., 2020). At the tertiary level education, the assessment was considered as the central element to determine students' language skills, knowledge, and a way to measure students' success to achieve the course's objectives (Stödberg, 2012). Before the pandemic situation, assessments at the tertiary level could be done both online and offline. There were various examples of the assessments, such as pen-paper mid-term, finals, presentations, quizzes, group/pair assignments, and project-based assignments. Most of them were done during face-to-face (F2F) classes, and some of them were conducted online, which meant that blended and F2F assessments were both available. However, amid COVID-19, the situation totally changed, and both students and teachers had to adapt to the *new normal*, a term first coined by American public speaker and author Charles Eisenstein. He mentioned, "We sense that 'normal isn't coming back, that we are being born into a new normal: a new kind of society, a new relationship to the earth, a new experience of being human" (Tumapon, 2020). In this *new normal* phase, teaching, learning, and assessment were done online.

1.2 Background and Context

In China, the social demand for higher education and lifelong learning increased since the year 2000 (Xin et al. 2010). By 2007, the gross enrollment rate in higher education increased by about 1.5%. Around 25 million students all over China enrolled at various higher level educations, which surpassed the number in the United States to become the highest in the world. With the growing demand for higher education, some cities and communities started to

build e-learning based towns, business and industries employing digital information technology. This was how the journey of e-learning began to spread in China.

However, the scenario completely changed due to the COVID-19 pandemic. All over the world, learners had to experience online education. In China, by 2 February 2020, 22 major online curriculum platforms opened where around 24,000 online courses were offered for higher education covering 12 undergraduate programs (Wang, 2020).

In Bangladesh, on 8 March 2020, when the first three cases of COVID-19 were found (IEDCR, 2020), Bangladesh's government decided to shut down all the educational institutions following the footsteps of other developed countries. As a result, all the campuses remained close from 17 March 2020, until conducting this study (Dutta & Smita, 2020). Thus, students from primary to tertiary level had to stay at home instead of attending on-campus classes; they had to continue their studies virtually.

1.3 Needs and Objectives of EAP course

In today's world, the needs for English for Academic Purposes (EAP) courses were not limited to the countries where people tend to speak English as a first language (Haque, 2017, p. 225). Even countries such as Bangladesh felt the necessity to add EAP courses in their tertiary level curricula since English had been used as a medium of instruction worldwide. Since right after their undergraduate level education, students would be interested in looking for either jobs or opportunities to go for higher studies overseas; they had to know the correct techniques of using the four language skills (reading, writing, speaking, and listening). Also, the courses helped the students throughout their entire journey of undergraduate life.

The university that the researcher chose as a representative of all private universities had the following course objectives of one of the EAP courses which students of all departments had to complete within their first year.

The courses aimed at developing

- Students' critical thinking ability

·Persuasive argument

·Study skills through reading, critiquing and interpreting texts in speaking and writing

·Students four language skills (writing as a process, not a product)

·Students' fluency, confidence, self/peer-feedback giving skills.

1.4 Problem Statement

Due to COVID-19 pandemic, around 1.5 billion students in 190 countries (UNICEF, 2020) could not attend on campus classes. Teachers had to bring dramatic transmission and shifted to online courses within a short period (Kandri, 2020). This quick rush was made so that students did not face any hurdles to gain knowledge. However, it was necessary to investigate to what degree and in what depth e-assessments had taken hold in order to evaluate their full potential to alter students' needs. Also, there were questions raised regarding the effectiveness of the students' learning. Through a recent article titled "E-learning: A boon or a bane?" published in *The Daily Star*, Mortuza (2021) stated that our education was in crisis since students tended to take advantages of e-assessment and tried to adopt unfair means, such as plagiarism, to achieve good scores. Thus, the possibilities of tracking students' actual learning through e-assessment could be questioned. Now, it was needed to examine whether the scenario was same in every course at the tertiary level. Not only this, teachers were expected to make sure students' learning and skill development through e-assessments. In order to do so, they had to create valid, reliable and practical tasks and activities for the current e-assessment practice. Hence, whether or not e-assessments contain these characteristics was another key query in this regard. Overall, whether or not e-assessment could represent the actual situation of students' learning needed to be explored, since the shift from physical to virtual courses was not sufficient; effective evaluation was also required.

1.5 Purpose of the Study

Studies focused on the effectiveness of e-assessment in the Bangladeshi context were not many, but an assessment was one of the important tenets of teaching-learning process. A recent study conducted by Huda et al. (2020) showed the impact of e-assessment at tertiary level education from students' perspectives alongside the benefits and drawbacks of the practice. However, the current study focused on both teachers and students' views regarding the effectiveness of e-assessment as teachers had to deal with the overall design of courses. Lastly, the study evaluated the presence of the characteristics of a good assessment in the current e-assessment practice.

1.6 Objectives

The objectives of this study were as follows:

1. To examine the perception of students of EAP courses regarding the effectiveness of e-assessment
2. To examine the perception of teachers of EAP courses regarding the effectiveness of e-assessment

1.7 Research Questions

This study therefore focused on the following research questions:

1. What is the perception of the students of EAP courses regarding the effectiveness of e-assessment?
2. What is the perception of the teachers of EAP courses regarding the effectiveness of e-assessment?

1.8 Significance of the Study

Based on the current literature review, the researcher found that it lacked studies that could tap into the concern regarding the e-assessment of EAP classes in the context of Bangladesh. This study's findings would provide valuable insights and motivation to researchers to conduct future studies in the same field, considering other education levels. Based on the results, appropriate measures could be taken for a better learning experience. Not only this, but this study would also assist in deciding whether or not e-assessment should continue even after the situation becomes better after the pandemic. Furthermore, it would tap into the validity, reliability and practicality issues of e-assessment from the perspectives of both teachers and students.

1.9 Limitations

Despite all sincere efforts on the researcher's part, the study had some limitations as well.

Firstly, the closure of all campuses due to the COVID-19 pandemic had made it impossible for the researcher to collect responses face to face from the participants. Consequently, the researcher could collect data from four privately-run universities in Dhaka. The study could have been more diverse if other universities could be involved. Again, the findings would have been substantial if data could be collected from all over Bangladesh. Finally, since students' responses were collected using "Google Forms," the authenticity of the responses might be questioned. Again, the student participants of the study were unwilling to respond to the Google Form. Due to their lack of interest, the researcher could not proceed further for a couple of weeks. Although she took appointments from the teachers for the interview beforehand, two of the participants did not give her the interview on the given date. She had to wait for three more weeks to complete the data collection process. Furthermore, one of the teacher participants was in a hurry and did not allow her to ask follow-up questions although it was mentioned that semi-

structured interview would be conducted. While taking interview of a teacher participant through Google Meet, suddenly both the interviewer and interviewee lost their internet connection and she had to record the rest of the session though a Smartphone. Lastly, due to strict administrative policies, one of the teacher participants forbade her to record the session. Thus, she had to take handwritten notes of the responses. Nonetheless, the overall experience encouraged her to increase her level of tolerance. It also made her prepared for future research.

Chapter 2

Literature Review

In this chapter the history of assessment, differences between assessment and testing and evaluation, e-learning and e-assessment, importance of assessment in a language classroom, characteristics of a good assessment, types of assessment, principles of effective e-assessment, effectiveness of e-assessment in Bangladeshi context, theories used to analyze data, and the importance of the current research were discussed.

2.1 History of Assessment

It was Horace Mann, the pioneer of learning measurement, who in 1940 first talked about standardized written examinations to assess students' performance (Pearson et al., 2001). Since 1900, for tertiary education, a formal and continual assessment became popular at the University of Wisconsin to measure the efficiency of higher educational institutions (Urciuoli, 2005). Nowadays, the assessment target has been shifted to students' learning outcome instead of measuring institutional efficiency. The terms "standards" and "accountability" in terms of assessment were spread throughout the educational discourse of Europe and the USA (Kirkwood, 2009). Allen (2004) further suggested that assessment must be considered an integral part of the teaching and learning process, and the feedback linked to the assessment might enhance institutional effectiveness.

To ensure the "quality", students, teachers, and other stakeholders had experienced a transition from a traditional classroom model to an online or blended platform (Mandelbaum 2013). Thus, the necessity to review the assessment, teaching strategies was realized, and the practice of e-learning gained popularity (Buzzetto-More, 2006). He further added that the strategies of e-learning and teaching might also enhance the effectiveness of teaching and learning by providing alternative assessment protocols.

Moreover, scholars were more interested in the flipped classroom following the synchronous and asynchronous patterns. In this new classroom, materials were shared prior to the class. Students had to go through them and expected to process the materials through completion of tasks and activities under teachers' supervision. Honeycutt and Garrett (2014) defined flipped classroom as "a shift from individual to collaborative work, combined with a move away from the dissemination of information, to gain specific learning outcomes" (as cited in Villiers, Scott-Kennel & Larke, 2016, p. 67).

Having a vivid and profound impact on the teaching-learning process, e-assessment was built on the concept of traditional assessments but facilitated online using digital tools (Villers, Scott-Kennel & Larke, 2016). Bielawski and Metcalf (2005), in one of their studies, mentioned that though the advantages of flipped classroom were many, there was lack of researches that could link the learning approaches to assessment andragogy. Besides, Conole and Warburton (2005) emphasized the need for new models which might focus on the impact of ICT on assessment. E-assessments could facilitate tertiary education by co-constructing own knowledge and creating an opportunity for an exchange between facilitators and students instead of a mere transfer of information (Pintrich & Zusho, 2002). Thus, further studies on the effectiveness of e-assessment were a necessity.

2.2Assessment versus Test and Evaluation

Although the terms assessment, test, and evaluation are interchangeably used, some distinctions can be found. Giving importance to "method" and "measuring" tests, the method can be used to measure one's skills and knowledge (Brown & Lee, 2015). They further added that "tests were prepared administrative procedures which might systematically assess students' performance within a specified time using detectable scoring methods" (p. 489).

On the other hand, the assessment has the broadest objective that targets tracking students' progress in learning through feedback. Based on the feedback, constructive communication between students and teachers and students takes place (Islam, 2019).

Again, the evaluation is an umbrella term, broader in scope, including both assessment and testing. It includes areas of "accountability, cost-effectiveness, and development" (Murphy, 1985). It goes beyond tests and assessments, considered teaching and learning, and helps figure out the impact of alternative assessments on educational decisions (Khan, 2018).

2.3 What is E-learning and E-assessment?

E-learning, distance education, online learning are terms used to describe the method of rapid-learning through the intentional integration of the internet and information technology (Mohammadi et al., 2011). The "e" referred to "efficient learning, electronic learning, extended learning, easy-to-use learning, and enhanced learning" (Zhou et al., 2020, p. 502). It is the United States of America where the practice of e-learning first started. However, after 1998 e-learning spread worldwide from North America and Europe to Asia. A number of studies found that e-assessment tools can create, analyze, and provide feedback for summative and formative tasks (Engelbrecht & Harding, 2003). E-assessment refers to the use of "digital learning technology to manage and deliver various kinds of assessment to assess learners' knowledge and skills virtually" (Chen & Tseng, 2019, p. 2).

2.4 Purpose of Assessment in a Language Classroom:

While discussing the purposes of an assessment, Khan (2018, p. 2) mentioned the following points:

a. **Screening and identification**: to determine the suitability of various curricula based on students' proficiency level.

b. **Placement**: to determine students' knowledge and skills and place them in various instruction levels within the program.

c. **Reclassification or exit**: to determine whether students had met the course's objectives, content or necessary skills.

d. **Monitoring Students' Learning**: to review learners' learning experience.

e. **Accountability**: to make sure students achieve the required educational goals and standards.

2.5 Characteristics of a Good Assessment:

There are three main characteristics which make an assessment a good one.

2.5.1Validity

Validity is directly connected to the 'content and form' of an assessment (Coombe, 2009). He further defines the character as to what extent an assessment measures what it is supposed to measure. That means if the objective of an assessment is to measure students' language ability, it must stick to that and should not assess anything else.

2.5.2 Reliability

Reliability is the stability of assessment scores assessed at different times. Among the factors affecting the assessment, reliability can be a sample of students' performance, condition of administering the assessment, poor motivation, and illness and personal problem (Hughes, 2003).

2.5.3 Practicality

Practicality refers to resources available to teachers and learners of language assessments to complete the "processes of developing, administering, scoring, and using their assessments" (Khan, 2018, p. 34). She further adds, practicality is a criterion to decide the eligibility of any assessment based on the availability of resources, institutional policies, time, space, students' and teachers' preferences.

2.6 Pros of E-assessment:

Before the pandemic, at tertiary level education, sometimes e-assessment was conducted alongside traditional pen-paper test. Since the situation has changed and universities have been bound to take online classes and e-assessment, we can consider the following advantages of using e-assessment:

a. Students could take the assessments staying at home, at their own pace, and provide reliable measure (Thompson &Braude, 2016).

b. Through e-assessment, teachers would give immediate feedback compared to traditional pen-paper assessments which eventually helped students to understand the concept better and work on their flaws immediately (Mora et al. 2012).

c. Students can easily differentiate between expected and actual performance (Nicol, 2007).

2.7 Cons of E-assessment:

The followings could be some disadvantages of using e-assessment:

a. Due to students' lack of experience and expertise (resulting in low confidence), e-assessment might not be suitable to assess their potentials (Whitelock& Brasher, 2006).

b. It becomes hard to motivate students (Bacigalupo et al., 2010).

c. Due to a lack of students' attention for a distracting environment, they complete tasks in a hurried and superficial reading that was unfavorable for the students' learning (Mason, 2014).

d. As defined by Whitelock (2011), "Advice for Action" referred to the type of feedback that provided the students with important input that facilitates their learning by assisting and improving their grades (as cited in Rolim & Isaias, 2018). Sometimes teachers are unable to provide students with this feedback online.

e. Sometimes, students try to adopt unfair means (e-cheating, plagiarism) to get a good score in assessments (Mortuza, 2021).

2.8 Seven Principles of Effective E-assessment

To measure the effectiveness of traditional assessment techniques, Kellough and Kellough (1999) identified seven objectives. They mentioned that an effective assessment was expected to assess students' strengths and areas of improvement, develop students' learning experience, review and enhance various teaching strategies, create scope for the improvement of curricular programs, improve the teaching experience, provide essential administrative data to enhance decision making, and offer a basis for communication with stakeholders.

However, studies to figure out the effectiveness of e-assessment were conducted by Villers, Scott-Kennel and Larke (2016). While describing the effectiveness of e-assessment in a foreign context, they found seven principles of a fruitful e-assessment. The principles were:

- **Affordance**: It referred to the allowance of summative, formative and diagnostic feedback more effectively online. There must be responsiveness and flexibility in terms of content, delivery and feedback increasing the participation of both teachers and

students. Based on the traditional practice of exchanging feedback from peers and teachers, e-assessment must allow anytime-anywhere access to assessment information and data. It encouraged learners to “opt-in”.

- **Alignment**: It referred to the ability to align the used method with the learning outcome/objective. It must point the similarities and differences between expected and real outcome. To call an e-assessment effective, it should be able to align the method and outcome in a timely and personalized way.
- **Articulation:** Any e-assessment must vividly have goals, standards, and expectations. Transparency of e-assessment in terms of understanding the procedure for both teachers and students should be available.
- **Accountability:** Both learners and teachers were mutually responsible for the learning outcomes to be achieved and for providing/collecting evidence of this achievement.
- **Accreditation:** The assessment must measure the realistic learning outcome. In doing so, feedback given before, and during assessments was useful for the learning outcome. This principle promoted reliability and validity of assessment with academic integrity.
- **Adaptation:** E-assessment must have the ability to accommodate content, the learning context, teachers and students’ learning styles and learning outcomes. This might enable teachers to gain various layers of competence across various contexts and abilities.
- **Authenticity:** The assessment event needed to be fair, legitimate, realistic and useful in the real-life application of the knowledge and skills gained.

Figure 1: Principles of E-assessment: Key Questions for Andragogy (adapted from Villers, Scott-Kennel &Larke, 2016)

2.9 Effectiveness of E-assessment in Bangladeshi Context

A recent study conducted by Huda, Kabir and Siddiq (2020) showed the effectiveness of e-assessment at tertiary level education in Bangladesh. The findings were totally based on the perspective of randomly chosen students. The result showed that students had a positive attitude towards the e-assessment and they understand the importance of it. However, they had some fears and concerns regarding the technology-based examinations for the lack of ICT competence. The study was conducted keeping in mind factors such as affective, validity, reliability, practicality and security.

2.10 Importance of the Current Study

As mentioned above by Pintrich and Zusho (2002) that e-assessment could facilitate tertiary education by offering the chance to co-construct knowledge rather than transferring information. Through this study, the researcher would like to investigate the validity of this statement by finding an alignment between e-assessment and learning objectives. Besides, the

researcher was interested to figure out to what extent the seven principles of effective e-assessment by Villers, Scott-Kennel and Larke (2016) were present in the current practice of e-assessment in the Bangladeshi context from both learners' and facilitators' perspectives.. Although the presence of the qualities of a good assessment was figured out by Huda, Kabir and Siddiq (2020), their findings were based on the responses of randomly chosen tertiary level students. Compared to the study, this research focused on the issue from both the EAP course teachers' and students' perspectives since it was the teachers and students who were directly involved in the teaching-learning process. The overall finding of this study would ensure better learning experiences amid COVID-19.

2.11 Theoretical Framework

The findings of the study were analyzed following the principles of effective e-assessment by De Villers, Larke and Scott-Kennel (2016). The key principles authenticity, affordance, alignment, articulation, accountability, accreditation, and adaptation were verbosely discussed in the literature review section. Moreover, Stephen Krashen's *comprehensible input hypothesis (i+1)* and Lev Vygotsky's *zone of proximal development (ZPD)* were used to align the findings with the existing literature.

The comprehensible input hypothesis explained that "acquisition occurred when one was exposed to language that was comprehensible and contained i+1. The 'i' represented the level of language already acquired, and the '+1' was a metaphor for language that was a step beyond the existing level" (Lightbown & Spada, 2013, p. 106).

Vygotsky (1987, p. 86) described the ZPD as "the distance between the actual developmental level as determined by independent problem solving and the level of potential development as determined through problem solving under adult guidance or in collaboration with more capable peers. It was the domain or scale where learners were not yet capable of using the L2 anonymously but with the assistance of proficient partner performance could be raised" (as cited in Xi & Lantolf, 2021, p. 31).

Chapter 3

Method of the Study

The chapter offered a brief description of the methods used to collect data, sampling, instruments, instrument validation process, data collection and data analysis process.

3.1. Research Design

In this study, the researcher aimed at capturing teachers' and students' perceptions regarding the effectiveness of e-assessment amid COVID-19. To facilitate, qualitative research would be appropriate to understand human perception. However, from the researcher's previous research experience, she had an insight that student participants' are reluctant to answer open-ended questions or to go for an in-depth interview. Also, amid pandemic situation, it was difficult to manage students for interviews. Hence, for the student participants, survey questionnaire following the rules of quantitative research was designed. On the other hand, teachers agreed to give interviews to open-ended questions following the qualitative approach. Thus, a mixture of both qualitative and quantitative approach made this study a mixed-method research that helped the researcher to gather information about students' and teachers' perception regarding the effectiveness of e-assessment in this pandemic situation.

3.2. Methodology of the Research

In the qualitative approach, through open-ended questions of the semi-structured interview, the researcher aimed to have an in-depth understanding of the teachers' perception to draw new situations by analysis and comparison. While discussing the aims of a qualitative research, Patton (2005) mentioned that researchers were allowed to compare and analyze new situations by discussing people's experiences and thoughts through qualitative research. Hence, following the qualitative approach, the researcher could capture people's experiences through in-depth study.

In contrast, Creswell (2014) defined quantitative research as an "investigation into a social or

human problem based on testing a theory consisting of variables, measured with numbers, and evaluated with statistical techniques to see if the theory's predicted generalizations hold true" (as cited in Leedy, 1997, p. 104). Following the definition, the researcher tried to figure out students' perception using close-ended questions consisting numbers (on a scale of 1-4) and later calculated the percentages and mean score. Hence, a combination of qualitative and quantitative research made the current study a mixed-method one.

3.3. Sampling

As the researcher wanted to explore the effectiveness of e-assessment from students' and teachers' perceptions, 30 students and 4 teachers from 4 privately-run universities were randomly selected as the sample for this study. The only condition was that the participants needed to have experience of completing at least one EAP course virtually to share better experience. Among all the student participants, 23 male and 7female aged between 20-23 years took part in the survey. It was needed to mention that all of them were first year students. In terms of the teacher participants, 3 male and 1 female teachers agreed for the virtual interview session. Below, a table included further details of the teacher participants

Table 1: Profile of Teacher Participants

Teachers' name	**Gender**	**Number of years active in teaching profession**	**Highest level of educational qualification**
T1	Female	11.5	M.A. in English
T2	Male	7	M.A. in English
T3	Male	9	M.A. in English
T4	Male	11	M.A. in English

3.4. Setting

The study was conducted in a virtual setting where participant teachers and students responded to the questionnaire virtually based on their availability. The researcher and her supervisor had to call over phone the teacher participants from four privately-run universities and convinced them to become a part of the study. After receiving their positive responses, the researcher emailed the teacher participants the interview questions, Google Meet link, and requested for an appointment. On the given date, both the interviewee and interviewer virtually met and conducted a semi-structured interview session that lasted for 45 minutes to 1 hour. In case of one teacher participant, the data was collected through WhatsApp audio call. Due to the teachers' unavailability, the researcher had to wait for three weeks to complete the interview sessions.

Furthermore, in terms of collecting data from the student participants, her respected supervisor, course teachers, and participant teachers assisted her to get responses from the target group of students. The students were given a Google Form link and they filled them up during their online class or free time. In was needed to mention that the researcher refrained herself from offering any lead in to the participants. Also, as there was teachers' involvement in collecting responses from students, the researcher could receive authentic and unbiased responses.

3.5. Instrumentation

The researcher decided to use survey questionnaire (both open-ended and close-ended) and semi-structured interview as instruments for this study. The questionnaire given to the student responders included 25 close-ended questions and 1 open-ended question to determine the answer of research question 1. The survey questionnaire also included 4 general questions to get details of participants' profile. 10 open-ended questions were used to conduct the semi-structured interview of the teacher participants where the participants were given opportunity to describe their experience and beliefs. It answered the second central research question.

3.5.1. Survey Questionnaire

Dörnyei (2016) defined questionnaire as "any written instrument that presented responders with a series of questions or statements to which they were to respond either by writing out the responses or selecting from the existing answers" in his definition (p. 102). This definition helped the researcher to design the close-ended questionnaire where student participants had to select the answers from the given options (Likert scale) to share their views. The researcher found an advantage of using close-ended questionnaire where participants received fewer chances to skip questions. Use of Google Form made it even easier as it had option to ask the participants to attempt all the questions. Reja et al. (2003) pointed out the same advantage of close-ended questionnaire in contrast to open-ended ones. They said that close-ended questions offered advantages in that they did not require lengthy coding and in comparison to open-ended questions, the majority of the participants responded to the items.

3.5.2. Interview

For the teacher participants, interview was used as the instrument. The aim was to create a flexible environment through the semi-structured questions so that the participants could share their values, beliefs, and attitudes regarding the issue which matches with what Codó (2009) said while defining an interview. She mentioned, interview is "a reasonably flexible approach for obtaining data on multilingualism." The goal of the study was to collect biographical and other contextualizing information from language users, as well as their perspectives, values, and attitudes regarding their own and others' linguistic practices" (p. 159).

3.6. Instrument Validation

It was essential to validate the instruments used to collect data. Primarily, the researcher designed the survey and interview questions and took approval of her supervisor. Then, following the supervisor's advice, she conducted a small scale pilot study where one male and one female student alongside a teacher took part to determine the quality of the questionnaires. The participants of the pilot study found the questions lengthy, repetitive, and advised the

researcher to deduct the number of the questions to make the data collection process smooth. After working on the given feedback, the researcher again showed the changes to the supervisor. Finally, the main data collection process started.

3.7. Data Collection Procedure

After getting approval on the instruments used to collect data from the supervisor, the researcher started to look for participants who would have interest in her research and willing to become participants for the study. Due to the pandemic situation, it was impossible for her to go to the institutions physically. Hence, with the assistance of the supervisor, she tried to convince teachers from four privately-run universities randomly. After receiving their positive responses, she emailed them the interview questions, Google Meet link and mentioned the date and time for the interview as per the interviewees' preference. It was mentioned that their identity would be kept confidential and the data would be used for the research purpose only. On the given date, the interview sessions were conducted and with the participants' permission the whole session was recorded. For one teacher participant, the communication and interview was done through WhatsApp. The researcher took notes of the responses as she was not allowed to record the session due to strict administrative policies of the institution.

Furthermore, to maintain authenticity and individuality, the supervisor, courses teachers and participant teachers had to assist the researcher. They were emailed the link to the Google Form by the researcher. Later on, during their class time, the link was shared with the students and responses were collected immediately. Again, a group of students filled up the form during their free time.

3.8. Data Analysis Procedure

Data analysis procedure was done following several steps. Since Google Form automatically inserts responses in a Microsoft Excel Sheet, the work was not required to be done manually. In order to analyze the responses of the close-ended questionnaire Likert scale was used. The mean score and percentages of the responses were calculated manually later on. Furthermore,

the data was presented in a descriptive manner in the following chapter. For the open-ended questions, she tried to determine themes from the teachers' responses after verbatim transcription of the responses. Lastly, the researcher connected the findings with the existing literature.

Chapter 4

Findings

In this chapter, the researcher shed light on the data collected from the student and teacher participant through Google Forms and virtual interviews. A total of 30 tertiary level students and 4 teachers from 4 privately-run universities took part in this survey. Firstly, the responses from the student participants were calculated through Likert scale and showed in a table. Furthermore, teachers' responses were thoroughly mentioned question wise.

4.1. Responses of the Student Participants to the Close-ended Questionnaire

A total of 25 statements were kept in the Google Form to find out students' perception towards the effectiveness of e-assessment. For the last statement, students were asked to write down the reasons behind their preference in bullet points. The statements strictly followed the Likert Scale having four options strongly agree, agree, disagree and strongly disagree available for the participants. The choice of options was forced as the researcher intentionally omitted the option neutral to receive a better outcome for the study. Again, the responses were evaluated by calculating their mean score. Hence, the following mathematical figures were taken into account:

Strongly Agree = 4

Agree = 3

Disagree = 2

Strongly Disagree = 1

Moreover, a mathematical representation scale was designed on the basis of the mean score to present the findings of the survey questionnaire:

- 3.51- 4.00 = very positive perception
- 2.51- 3.50 = positive perception

- 1.51- 2.50 = negative perception
- 1.00-1.50 = very negative perception

Table 2: Percentages and Mean Score from Students' Responses

Statements	Strongly Agree (%)	Agree (%)	Disagree (%)	Strongly Disagree (%)	Mean Score
1. I was provided with enough opportunities to discuss my areas of improvement after each e-assessment.	13.33%	80%	6.67%		3.07
2. I could access to my facilitator's feedback whenever I needed.	6.67%	80%	13.33%		2.93
3. I could reflect on the feedback and made necessary changes to develop my work.	20%	73.33%	6.67%		3.13
4. E-assessments increased my competence and learning.	20%	76.67%	3.33%		3.17
5. I found e-assessments satisfying my pre-determined learning expectations.	13.33%	83.33%	3.33%		3.1
6. I received precise and constructive suggestions from my facilitator.	6.67%	83.33%	10%		2.97
7. I was well aware of the time and effort needed for each assessment.	10%	76.67%	13.33%		2.97
8. I had to increase my level of performance to	3.33%	90%	6.67%		2.97

achieve competency through some assessments.					
9. I could develop/achieve self-management skills through some e-assessments.	3.33%	83.33%	13.33%		2.97
10. I had to collaborate and discuss with my peers and facilitator to complete e-assessments.	6.67%	73.33%	20%		2.9
11. I had to participate in real-time chat, online forums such as Discord, Slack, Facebook group, and e-mail to communicate with peers and facilitators for e-assessment purpose.	13.33%	73.33%	13.33%		2.87
12. I was encouraged to take charge of my own learning for various e-assessments.	3.33%	86.67%	6.67%	3.33%	3
13. My peers or I were appreciated by our facilitator after receiving decent grades/marks in various assessments that enabled us to determine the standard and benefited afterwards.	23.33%	66.67%	10%		2.9
14. I had some short yet timely assessments that	3.33%	86.67%	10%		

facilitated my learning.					3.13
15. I had to complete experiential (using knowledge from my observation and experience) case-based, and project-based e-assessments.		86.67%	13.33%		2.93
16. Varieties of materials such as podcasts, pictures, videos, and reading texts used in e-assessments enhanced my learning opportunities.	13.33%	80%	2%		2.87
17. I had to go through several learning steps in e-assessments such as planning, executing, reflecting, and redesigning to ensure a better learning experience.	13.33%	76.67%	10%		3.07
18. I could use my knowledge gained from various e-assessments beyond the class in real-world.	3.33%	80%	16.67%		3.03
19. I could increase my ability of problem-solving and complex decision-making while working to complete tasks/activities online.	3.33%	83.33%	13.33%		2.87

20. I could point out my peers' strengths and weaknesses through constructive feedback and started to value others' opinions online.	13.33%	80%	6.67%		2.9
21. I found my marks/scores/grades fair for each e-assessment throughout the course.	13.33%	76.67%	6.67%		3.07
22. I found the e-assessments measuring various skills, elements, and behaviors which they had aimed to measure.		86.67%	13.33%		3
23. Sometimes technical glitches made e-assessments look impractical.	13.33%	66.67%	20%		2.87
24. I found e-tools such as Google docs, slides, forms, and Vocaroo etc. trustworthy and dependable for online assessments.	6.67%	86.67%	3.33%	3.33%	2.93
25. I will prefer pen-paper based assessment if the choice is given to me.	10%	60%	20%	10%	2.97

For the last statement, if students' responses were 'strongly agree/agree' they were asked to write the reasons behind their preference. 18 students chose the option 'agree' and 3 students went for the option 'strongly agree'. However, only four students answered the follow-up question. They mentioned reasons such as to have practical (F2F) experience enabling teachers to check real understanding and commitment to the study.

4.2. Responses of the Teacher Participants to the Open-ended Questions

The teacher participants were interviewed with 10 open-ended questions at different times from 4 different institutions virtually. Google Meet and WhatsApp were the two online platforms used to collect data. The responses from the participants for each question were stated below:

For question number 1, T2 and T4 had responded similarly. To quote T2, "to align tasks with the learning objectives, we share different sort of resources and technology makes it easily accessible for our learners. Later on, in their professional life, they are required to do things independently, interact and work for learning purposes in a teaching-learning hub. Hence, their ways of being dedicated, independent, collecting information from various sources, synthesizing them and putting them together to complete the task as instructed by the instructor becomes easy through technology. But lack of awareness about learning is one of the disadvantages. Students are encouraged to explore information from various sources but proper credit must be given to the right person. However, students use others' work without proper citation using it by their name."

According to T1 and T3, "as an advantage I see technology is helping me to assess students' abilities in a modern way. Without this inclusion it was impossible to conduct classes or assess students. Of course, the alignment is there as e assessments' tasks/activities will give an idea how students will perform as a professional in the future. As a disadvantage, students provide lame excuses of poor network which sometimes hampers the alignment and some students due to these reasons cannot meet the objectives."

For question number 2, T2 said "Teachers are not that much accustomed to online teaching. Although learners have spent more than a year, learners are still do not have much awareness in participating in online learning. For that reason, making the learning outcome achievable and attainable for every student is little bit difficult for both teachers and students. Some students lack honesty and refrain from submitting their original works. In such case, to what extent they are achieving their learning outcomes is a big question to me. However, I try my best to solve

this issue. For example, for the EAP course, they need to write "cause and effect essay" as part of their midterm work. Rather than simply giving them the topic on which they need to write the essay I have broken down the entire assessment planning into several sections and I have followed a process orient approach where I assess them starting from their brainstorming to producing their complete essay. Throughout the entire process after they get the topic, first they submit a plan. After submission, I provide them with some sort of feedback and they submit all the things in groups. Later on, I ask them to individually collect at least 4-5 articles related to the ideas they brainstormed on the topic. In the meantime, for a separate submission, they provided the extracts they are going to share or paraphrase in the essay (individual task). After getting approval from me, they start writing the essay. Before following the process, I used to find a lot of commonalities and plagiarism but using this process I was very satisfied with the work. The issue of plagiarism is minimized to a greater extent. Each student was aware of what they are supposed to do. In such way they have managed to reach the learning outcome".

T3 said, "in terms of achieving the learning outcomes, I see no difference between F2F and online practice. Assessments techniques are pretty much the same, I will say even better as for one of my EAP courses, students from architecture department need to write e-mails for their profession. Comparing to the on campus class, they type the email instead of writing it in the copy. Hence, comprehension of situation and production of piece of communication according to the content and style the objective remains the same."

For question number 3, T2 narrated, "when I am giving them feedback, they are stored in Google Drive. Later on, at the time of reviewing their papers, they can give proper attention to those feedbacks. In case of peer-feedback, the instructor's role is important. To what extent instructors can push students to give each other feedback is essential. Similarly, students need to understand the instructions and give each other feedback. Keeping their excitement alive while checking friends' copies is necessary. Hence, in case of exchanging feedback, I see e-assessment as an advantage".

Similarly, T3 said, “I can wonderfully give students holistic, individual and group feedback using Microsoft Team and Class Note Book. Even if we go back to the on campus classes, I will continue using these applications as feedback giving process becomes easier and understandable.”

For question number 4, T1, T2 and T3 said“I can push my students to engage themselves in discussion sessions by offering them bonus points. In Zoom Breakout Rooms, they are divided in small numbers and have discussion in various topics. However, at times it becomes challenging as not all the students are in the same level of proficiency. For on campus class, it is possible to pull up the similar attention, preparation and abilities for the discussion but online it is not possible.”

For question number 5, T3 and T4 narrated “My students for this EAP course are mostly 1st year students. For them, the real world means their academic journey. My job is to make their tasks easier so that they can apply their gained knowledge in other departmental courses. As inclusion of technology in assessment are enabling them to make the best use of the available resources, and students get the chance to participate actively in tasks in this distance learning situation, they are becoming proficient.”

“For the communication class, students are required to type emails and memorandums similar to the way they will do it for the professional life. Through these e-assessments, students are prepared to face the real world. “

For question number 6, T3 mentioned, “For this distance learning situation, some restrictions are there to bring variation in tasks for e-assessment such as not all the students are not well competent in terms of using technology. We could include some apps which would make students more proficient but lack of students’ knowledge becomes an issue. Again, class size becomes an issue. We cannot think of variation if the class size is huge.”

T2 added, “For F2F classes, we teachers got fewer options to set the question. Previously, from 12-15 items we could choose, but now for the online assessment I can go for only 5-7 keeping

the challenges high and the chances of plagiarism low excluding the close-ended questions. Yes, it is challenging."

For question number 7, T2 narrated "It is almost the same as the on campus classes. For instance, in English reading class, reading comprehension ability and transforming their comprehension into noun phrases or choosing a certain option are the two fundamental ways of assessing students' reading skill for undergraduate students. To make it smooth for the online classes, I eliminated the choosing option so that students do not get to copy from each other quickly behind the camera. Measuring the same skills, students now transform their comprehension in small noun phrases, instead of matching headline, now they write them. I ask them to do flowcharts instead of true/false answers."

For question number 8, "The fine tune our plan based on students' success or feedback. For instance, for two of my sections, students' competency varied. Hence, I had to make the tasks a bit challenging for the competent ones to make the tasks enjoyable. For argumentative essay writing task, the number of citation and word limit was increased for the smart students. I did not do the same for the others. I just raised the bar a bit high for them" said T3.

I personally believe for the sake of online assessment students must not be deprived from the opportunity to learn or to meet the objectives of each course. Replacement has been done in that sense that I have increased the level of difficulty for the tasks so that students do not get to copy. Maintaining the authenticity, harder passages enable students to stay focused and provide individual attempts. I am satisfied with the outcome said T2.

For question number 9, T3 said, "e-assessments can be reliable and trustworthy if the students are trained in a proper manner with technological literacy. As long as teachers ensure students excitement for learning new things, use of authentic content e-assessments can be continued. Learners must see this chance as an advantage for learning and must not complete the tasks for

the sake of scores."

Again, T1, T2 and T4 had a similar response, they mentioned, "there is a high risk that students may copy as we don't use any software that can detect the unfair means through eye movement or other activities. Use of such software may turn e-assessments as 100% trustworthy and dependable. Again, students maintain individual private chat group to discuss answers which is another issue. Whatever creative adjustments I do the chances of copying remains there."

For the last question, T3 said, "sometimes e-assessments create a divide in terms of socio-economic circumstances. In the same home if siblings have one laptop /device, it creates a divide and pressure in students' mind."

T2 mentioned, "e-assessments are practical in terms of the availability of the materials as we take the passages from resources such as Washington Post, The Daily Star which are written in standard English. If we feel, we sometimes use synonyms of change the wording, same as the F2F classes. However, bringing variation in e-assessment can be time consuming as I have to prepare three-four sets of questions for each batch. Also, I have to invest some time to choose groups based on students past performance.

Chapter 5

Discussion & Conclusion

In this chapter the findings of the study were discussed in relation to the existing literature and theories. Finally, a conclusion and implication was drawn based on the overall discussion.

5.1 In Response to Research Question 1

Majority of the student participants believe that e-assessment for the EAP courses were effective as except for two statements, for the rest of the statements they had a positive perspective.

As mentioned by Khan (2018) that there were three main characteristics of a good assessment validity, reliability and practicality. It was expected to have the presence of these elements in e-assessment practice as well. From the findings of this study, it was vividly visible that students found e-assessments to be valid as the tasks/activities measure the same skills and content that they supposed to measure. This finding matched with the study result conducted by Huda, Kabir and Siddique (2020) as in their study they found tertiary level students to have validity in the e-assessment. Similar result could be drawn from the study conducted by Dermo (2009) where students had a positive view regarding the presence of validity in e-assessments. Furthermore, the next element reliability was found in the current study where students found e-assessments to be trustworthy and dependable. Similar result could be drawn from the other studies conducted by Huda, Kabir and Siddique (2020) and Dermo (2009) where students could rely on e-assessments even though the contexts were different so as the participants as they were randomly chosen. For the last character, practicality, student participants found that e-assessments could be impractical due to technical glitches. Here, the finding matched with what Huda et al. showed in their study. However, from the results of the study conducted by Dermo (2009) showed different result as student participants of his study had a positive outlook for the presence of practicality. Hence, a

conclusion could be drawn that students experiences might differ based on the difference of context.

In their proposed framework Villers, Scott-Kennel and Larke (2016) mentioned about seven principles whose presence would make e-assessment into an effective one. The principles were affordance, alignment, articulation, accountability, accreditation, adaptation and authenticity. From the students' responses, the researcher found that students were satisfied and considered e-assessment to be effective similar to the findings of the research conducted by Villers, Scott-Kennel and Larke (2016). They received enough opportunities to work on their shortcomings based on 24/7 available teachers' feedback. Also, peer feedback and teachers remarks after each e-assessment helped them to uplift their level of performance. Furthermore, tasks/activities were aligned with the learning objectives and they could satisfy their pre-determined expectations form the course. On another note, some real-world skills such as self-management, taking charge of own work and using knowledge gained from various authentic tasks enhanced their competency level. However, in spite of all these merits, their preference for the pen-paper based assessment created a demand for blended assessment system where teachers may use technology where it would be needed but there should be F2F assessments as well to increase students' commitment to the study.

5.2 In Response to Research Question 2

From the responses of the teacher participants, it was visible that e-assessments could be preferable. However, they had mentioned a number of hurdles which might create complications. They also shared their ways of dealing with those problems.

The researcher intended to find the presence of validity, reliability and practicality, the three important characteristics of a good assessment suggested by Khan (2018) from the teachers' perspective. Although validity could be ensured, the presence of reliability and practicality was

highly questionable. As mentioned by Mortuza (2020), students sometimes adopt unfair means to receive good grades in e-assessments which is similar to the concern of the teacher participants. Hence, they could not totally depend or trust the e-assessments despite of their creative adjustments to assess students' full potential. Moreover, e-assessments could be impractical due to technical glitches. The researcher found similarity in terms of this finding for both teacher and student participants.

Again, to avoid students' tendency of adopting unfair means for the e-assessments, teachers made some creative adjustments with the tasks and activities such as breaking down the entire work in several learning steps such as brainstorming, drafting and editing following the process-orient approach. Furthermore, to ensure they raised the difficulty level of the tasks for high achievers based on their performance. For example, fixed number of citation of scholarly articles, use of harder passages and increase of word limit could raise their level of performance. Even the majority of the student participants of this study considered that they had to increase their level of performance to do well. This was how teachers ensured Krashen's *comprehensible input hypothesis* (i+1) for the students where they would learn a bit beyond than their existing level of knowledge (as cited in Lightbown & Spada, 2013). This also ensure the presence of "adaptation" from the seven principles proposed by Villers, Scott-Kennel and Larke (2016) as teachers bring adjustments in the tasks and activities based on students' feedback and level of performance.

From the teachers' perspective, through e-assessments, students got better opportunities to get involved in the teaching-learning process. Incorporating use of e-tools such as Google Drive, Microsoft Team and Class made the feedback giving process smoother in comparison to the offline assessment. Mora et al. (2012) also considered e-assessments as an advantage as teachers could provide immediate feedback and compared to traditional pen-paper assessments which eventually helped students to understand the concept better and work on their flaws.

Furthermore, teacher participants mentioned that use of Zoom Breakout Rooms could motivate shy learners to provide peers with feedback enthusiastically. This contrast with what Bachigalupo et al. (2010) had said. They found out that through online assessments, it became hard to motivate learners. Since student participants were more comfortable in giving feedback online, this practice supported Vygotsky's (1987) concept of *Zone of Proximal Development* (ZPD) as students could move from actual development level to potential development level with the guidance of proficient partners or supervisors by exchanging ideas and feedback. For the e-assessments, students can provide each other with feedback that helps them to move to the level where they can use the language autonomously.

Furthermore, we could see that the teachers considered e-assessments to follow the principle 'affordance,' 'accountability' and 'authenticity' as suggested by Villers, Scott-Kennel and Larke (2016) in their proposed framework because of the availability of feedback 24/7. Also, the exchange of ideas was not only limited to a telephonic conversation. Rather it increased the level of involvement of the learners in the learning process. Similar to the on campus assessments, e-assessments were aligned with the pre-determined learning objectives. Teachers did not find any difference here. Furthermore, enthusiastic students could increase their competency level due to the creative adjustments done by the teachers following the principle adaptation. Lastly, authenticity was followed as skills learned from the e-assessments could be applied in real-life.

However, teachers still were unable to deal with some barriers which to some extent limit their creativity. Most importantly, students lack proper training in terms of using different apps and yet some of them could not grasp the idea of e-learning which was also pointed out by Whitelock and Brasher (2016) as they mentioned due to lack of students' expertise and experience, e-assessments might not be suitable to assess their potentials.

5.3 Conclusion

New technologies provide new learning and assessment options. It is impossible to ignore the benefits of technology, which can only be postponed. Despite the fact that numerous online education programs were produced until 2020 (Doğan et al., 2020), many instructors, students, or institutions lacked the necessary expertise and only used them occasionally. With the COVID-19 epidemic, however, everyone has been forced to use internet platforms, whether they want it or not. Those with prior expertise in this profession adapted easily, whereas the remainder struggled to acclimate. As a result, recent events have demonstrated that delaying the adoption of online learning and e-assessment apps was no longer an option. Rather than avoiding them, we should concentrate on solving the process's most serious flaws, such as cheating, plagiarism, and taking the exam for someone else. Also, how to improve students' learning experiences by making innovative changes to the tasks and activities that should be considered. Current research would create new opportunities for developing e-assessment and might establish the need for a blended approach where the practice of e-assessment would continue with the traditional one based on the demand and need of the students.

5.4 Implication of the Study

This research showed teachers' and students' perception regarding the effectiveness of e-assessment but the sample size was small. Further studies can be conducted addressing more teacher and student participants across the country to receive a better perception. Moreover, the study was only limited to private universities. Participants from the public universities can be included. From this study, the readers will get to know about the creative adjustments done by the teachers to maintain validity and reliability of the e-assessments. While discussing their overall experience, teacher participants mentioned about some hurdles that might make the e-assessments ineffective. Readers can try to find out the practical solutions to these issues. The research may

motivate teachers and students to receive proper training to continue e-assessments even after the situation gets better or to go for the blended practice.

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Appendix A

Questionnaire for the Student Participants (Google Form)

Students' Responses for "The Effectiveness of E-assessment of EAP Courses amid COVID-19: A Study of Students' and Teachers' Perception at Tertiary Level

Dear Participants,

Thank you so much for being a part for this research project. Kindly take your time and fill up the form based on your experience of any foundation (EAP) course you completed virtually. Please note that your identity will remain anonymous and the responses will be used for statistical purposes only.

Personal Information:

Gender: Male □ Female □

Age: _____

Name of institution/university: _____

Semester: _____

Statements	**Strongly Agree (%)**	**Agree (%)**	**Disagree (%)**	**Strongly Disagree (%)**
1. I was provided with enough opportunities to discuss my areas of improvement after each e-assessment.				
2. I could access to my facilitator's feedback whenever I needed.				
3. I could reflect on the feedback and made necessary changes to develop my work.				
4. E-assessments increased my competence and learning.				
5. I found e-assessments satisfying my pre-				

determined learning expectations.				
6. I received precise and constructive suggestions from my facilitator.				
7. I was well aware of the time and effort needed for each assessment.				
8. I had to increase my level of performance to achieve competency through some assessments.				
9. I could develop/achieve self-management skills through some e-assessments.				
10. I had to collaborate and discuss with my peers and facilitator to complete e-assessments.				
11. I had to participate in real-time chat, online forums such as Discord, Slack, Facebook group, and e-mail to communicate with peers and facilitators for e-assessment purpose.				
12. I was encouraged to take charge of my own learning for various e-assessments.				

13. My peers or I were appreciated by our facilitator after receiving decent grades/marks in various assessments that enabled us to determine the standard and benefited afterwards.				
14. I had some short yet timely assessments that facilitated my learning.				
15. I had to complete experiential (using knowledge from my observation and experience) case-based, and project-based e-assessments.				
16. Varieties of materials such as podcasts, pictures, videos, and reading texts used in e-assessments enhanced my learning opportunities.				
17. I had to go through several learning steps in e-assessments such as planning, executing, reflecting, and redesigning to ensure a better learning experience.				
18. I could use my				

knowledge gained from various e-assessments beyond the class in real-world.				
19. I could increase my ability of problem-solving and complex decision-making while working to complete tasks/activities online.				
20. I could point out my peers' strengths and weaknesses through constructive feedback and started to value others' opinions online.				
21. I found my marks/scores/grades fair for each e-assessment throughout the course.				
22. I found the e-assessments measuring various skills, elements, and behaviors which they had aimed to measure.				
23. Sometimes technical glitches made e-assessments look impractical.				
24. I found e-tools such as Google docs, slides, forms, and Vocaroo etc. trustworthy and dependable for				

online assessments.				
25. I will prefer pen-paper based assessment if the choice is given to me.				

26. If the answer for (statement number 25) is strongly agree/agree, please write down the factors/reasons behind your preference.

_____

Appendix B

Interview Questions for the Teacher Participants:

Number of years active in teaching profession:

Highest level of educational qualification:

1. How does technology work as an advantage or disadvantage to align e-assessment tasks/activities with specific learning objectives/outcomes of the course?
2. How do e-assessment practices assist learners to achieve their predetermined learning outcome/s?
3. In terms of giving feedback or encouraging peer feedback for e-assessments, do you consider inclusion of technology as an advantage or disadvantage? Please state reasons behind your preference.
4. Do you give your students ample opportunities to have discussions with peers and you for various tasks and activities online? Can you give an example?
5. How do the students develop real-world skills through e-assessments?
6. To what extent is it challenging to bring variation in tasks/activities for e-assessments?
7. How does e-assessment measure the same skills, contents, and elements that they aimed to measure? Please provide an example.
8. Have you replaced less efficient activities by other effective activities based on students' performance and feedback for e-assessments? Please explain why or why not.
9. To what extent e-assessments are dependable and trustworthy?
10. To what extent e-assessments are practical in terms of material and technological resources and time set for each task/activity?