# Digital and Face to Face Assessment Implementation in Higher Education Institutions: Lessons for Teacher Educators

تطبيق التقييم الرقمي والوجاهي في مؤسسات التعليم العالي:

دروس وعبر للمعلمين

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#### Abstract

This study aimed to investigate the digital and face-to-face assessment strategies in higher academic institutions from the standpoints of Palestinian students and teachers' role in handling smooth assessment tools whether these tools are implemented in traditional setups or digital innovative ways. A questionnaire survey was completed by 8000 university students from four universities participating in an online learning program during the COVID19 pandemic in Palestine. A survey including both closed and open-ended questions was also used to ask students about their standpoints of the digital and traditional assessment practices. The results reveal that undergraduates consider face-to-face evaluation practices are more appropriate compared to digital assessment. A high percentage of learners believe that the digital and face-to-face evaluation practices did not have any significant differences due to university or gender variables. Similarly, most students express a positive attitude towards participating in online assessment because they feel relaxed without undergoing stress. Students perceive teachers' digital assessment practices as an effective method during the pandemic. However, they often face challenges such as internet connectivity, digital literacy, electricity problems, and material constrains. The students propose several solutions for online assessment challenges most of which revolve around the significant role of teachers in undermining them. For example, students suggest allotting enough time for learners; updating the system; effective training; improving internet speed, and equipment efficiency.

Keywords: Assessment practices; digital and face-to-face assessment in learning; Higher Education; students' perceptions; teachers' practices.

الملخص

تهدف الدراسة إلى البحث في استراتيجيات التقييم الرقمية والتقييم التقليدي (الوجاهي) في مؤسسات التعليم العالي من وجهة نظر الطلاب الفلسطينيين ودور المعلمين في التعامل مع أدوات سلسة في التقييم سواء خلال تنفيذ هذه الأدوات في اعداد احتبارات التقليدية أو تلك المرتبطة بالطرائق الرقمية المبتكرة. شملت الدراسة 8000 طالب من أربع جامعات فلسطينية ممن يشاركون في برنامج التعلم عبر الإنترنت خلال جائحة كوقيد-19. تم أيضًا استخدام استبانة تتضمن الأسئلة المغلقة والمفتوحة بحيث يعبر الطلبة عن وجهات نظرهم حول استخدام معلمي الجامعات التقييم الرقمي والتقليدي. اظهرت النتائج بأن الطلبة الجامعيين يفضلون التقييم الوجاهي على التقييم الرقمي. أظهرت النتائج بأنه لا توجد فروق دالة في معتقدات الطلبة فيما يتعلق بطرق التقييم التقليدية والرقمية تعزى لمتغير الجامعة والجن. بينما، يعبر معظم الطلبة عن موقف إيجابي تجاه المشاركة في التقييم عبر الإنترنت لأنه يوفر بيئة مريحة دون ضغوط. يعتبر الطلبة ممارسات التقييم الرقمي اسلوب فعال أثناء تفشي الوباء. وينوه الطلبة في كثير من المواقف الى تحديات تواجههم مثل الاتصال بالإنترنت والمعرفة الرقمية ومشاكل الكهرباء وصعوبات مادية. يقترح الطلبة العديد من الحلول لتحديات التقييم عبر الإنترنت والتي يدور معظمها حول الدور الاساسى للمعلمين في تقويضها. على سبيل المثال، يقترح الطلاب توفير وقت كافٍ للمتعلمين؛ وتحديث النظام، وتدريب الطلبة؛ وتحسين سرعة الإنترنت وكفاءة المعدات.

## **1. Introduction**

Due to the tremendous advances in communication and technologies of information, the entire teaching, learning, and evaluation system have undergone several vital changes (Cooper & Tschobotko, 2020; Hodgson & Pang, 2012). Therefore, there is a shift in teachers' roles and practices associated with using traditional ways of teaching, the conventional layout of classes, and the formal norms of testing to a new one connected with online learning and digital assessment, especially with the static situation of COVID-19, prevailing pandemic in the globe (Zhang et al., 2020). The current need for online learning and testing makes it inevitable to change the entire educational process due to the closedown of all academic institutions caused by the spread of coronavirus. Teachers implemented learning activities by the use of e-learning interactive tasks, which was accompanied by a real modification of the standard sort of education (i.e., teacher, student, and academic institution), leading the whole process into a modernized method together with the teacher, positive students, smart universities, advanced academic technology, developed curricula, and unsystematic education (Khoshsima, & Hashemi, 2017; James, 2016).

Online exams, also known as electronic exams, are traditionally considered computer-based exams. Their major function is to use computers to evaluate students` learning outputs (Hsiao & Watering, 2020). The sorts of evaluation may include summative, formative, or diagnostic. Instructors performed e-exams via the cloud or the Internet (Kearns, 2012). Online exams are increasingly being used by higher education institutions in Palestine, especially for placement or diagnostic tests. They implemented the electronic exam functionally through the use of a specialized framework, which incorporates a package in the learning system, Moodle and Sakai are examples of such systems. Teachers use assessment module exercises to create and administer exams that encompass various formats of questions such as Yes-No, brief-answer, and multiple-choice questions. Instructors stored assessment exercises in a bank of questions for future exams. To employ these innovative assessment activities for future testing purposes, teachers skilfully use programs in effectively redesigning them. Each time it

is used, it will immediately be scored, and feedback will be given soon or later after the teacher reviews it, especially with the type of short paragraph questions (Moodle, 2017). Online exams are easier to carry out than traditional paper-based exams, especially with large classes, because educators carry out the entire assessment procedures in a smooth marking process, storing, and performing statistical analysis of the results (Osuji, 2012; Farzin, 2016).

There are various studies related to the advantages of online exams and the challenges and complexities of implementing e-exams from the perspectives of teachers and students (Hsiao & Watering, 2020; Al-Shammari, 2011; Gilbert, Morton, and Rowley, 2007). The remarkable benefits of e-exams over the traditional pedagogy of testing are related to an innovative automated system that enhances the validity of assessment in the sense that teachers assess students' performance fairly. Moreover, innovative digital assessments improved the test results' quality and validity. Also, with the help of the teacher's innovative assessments methods, students get immediate feedback, which involves correcting their misconceptions (Archer, 2017). The employment of e-exams over paperbased exams contributed to improving the result reliability-administered tasks such as grading, filtering, and saving records, which leads to lowering teachers' workload, who spare time for other tasks connected with the input of learning (García Laborda, & Alcalde Penalver, 2018). More importantly, e-exams reduce the burden and stress associated with monitoring exams for a large number of students (JISC, 2010).

Due to the spread of the coronavirus throughout the whole world; all higher academic institutions were closed, so the process of learning and testing were carried out virtually. This is the case in Palestine, as all universities applied the system of e-learning, which was previously used by some universities adopting the system of open education. However, online exams were rarely implemented in Palestine; therefore, students` and teachers' perceptions of e-exams remain unexplored. So the researchers aim to explore students` perceptions of teachers' innovative assessment techniques practices at the Palestinian universities that had their first attempt at this type of assessment. The findings of this study will anticipate identifying vital aspects of designing and setting up e-exams by professionals that contribute to supporting students` level of engagement and cooperation (Domino & Domino, 2006).

# 2. Literature Review

There have been studies conducted on students` attitudes and feedback about performing online exams. Several studies have tested the benefits and complexities related to performing an e-exam from the instructors' and learners' perceptions (Kuikka et al., 2014; Farzin, 2016). Other studies focus on the sound way to perform digital exams (Gilbert et al., 2007; Bernik & Jereb, 2006).

One of the most notable benefits of digital exams that gained major attention in the studies is the ability to receive prompt reviews (Merdzhanov, 2019; Kuikka et al., 2014; Prater, 2018; Hodgson & Pang, 2012). Dermo (2009) investigated the impact of immediate feedback on university students. He revealed that prompt reviews allow new ways to acquire learning smoothly and effectively. Educators' keen interest to provide constructive reviews on the learning output, strong, and weak points needed enhancement to upgrade learners to follow the essential steps to develop their knowledge output (Feist, & Roberts, 2017; Dreher et al., 2011). The conducted research by Hodgson and Pang (2012) covered 104 university students who were registered for a course in statistics at the University of Hong Kong. The outcomes of the study revealed that university students showed high gratification with the timely reviews they received when attempting questions on multiple options. Consequently, the timely comments have powered educators to develop self-reflection skills. As well, it is effective so far in students' recognition of the outcomes of acquiring learning experiences (Prater, 2018). Many researchers have pointed to a related benefit of online exams, particularly the advantages associated with time-saving, endeavour, and expenses (Grays et al., 2017; Duhon et al., 2015). Adapting online exams speeded up checking students' work by eliminating traditional testing practices such as printing and typing.

Additionally, teachers don't spend much time because in the traditional way of testing they were required to evaluate numerous questions which required much more time to provide students with valuable feedback (Perelmutter et al., 2017; Haydon et al., 2016).

Several studies have revealed the benefits of electronic exams as being reliable, practical, and valid. It is a vital concern for instructors to get reliable marking, especially for overcrowded classes (Jovanne, 2018). Eexams could be marked more aptly than traditional paper exams with the help of technical devices (Al-Qdah & Ababneh, 2017). The randomized system of questions reduced the possibilities of cheating, which added to the practicality of e-exams (Grünke & Burke, 2015). In a similar study, Baleni (2015) remarked that freshman undergraduates studying at the University of Eastern Cape held attitudes that are favourable toward the exam's accurate grading because computers do not commit errors and the technology employed in online exams is reliable. However, these systems apply to short-answer questions or true-false questions (Farzin, 2016). Along with the accuracy of grading, students are keen on getting a fair and transparent assessment of their work (Iannone & Simpson, 2013). E-exams made students confident that the evaluation process was straightforward because the system provided the results instantly (Grays et al., 2017). Minimizing the potentiality of academic fraud is an additional advantage of e-exams because randomly distributed questions that are similar are displayed to students. They are provided with various groups of exam questions stored in a bank of questions. However, some students considered it to be unfair because they are required to solve questions that are tough compared to questions assigned to their colleagues (Grünke et al., 2015). Another challenge is pinpointed that is associated with randomized questions involving figures. To illustrate, students faced negative concentration when dealing with a specific set of numerical values for a precise question that was unavoidable in terms of physics, although they were correct mathematically with the chosen mathematical values (Demo, 2009). Therefore, educators should take into consideration the orders to be minimized and all options were checked manually. Shriam (2018)

investigated students` perceptions of e-exams at Palestine Technical University-Khadoorie. The study covered 342 undergraduate students. The researcher found out that students were in favour of online exams due to factors connected with scoring reliability, efficient utilization of time, and saving expenditures in processing exams. She added that using formative evaluation to measure learning outcomes worked effectively with electronic exams. As a matter of reality, implementing summative evaluation was not applicable with online tests. However, there were many challenges for administering e-exams, such as security, validity, and issues related to fairness. The researcher maintained that educators are required to perform e-exams that are valid, secure, and flexible (Li et al., 2021).

There is no doubt that the validity of digital exams is a great concern for learners and teachers. The integration of interactive media elements, including audio materials and internet links, made it accessible for users to assess learners` knowledge about various areas (Ritzhaupt et al., 2020). In a study conducted by Lim (2006), the researcher examined students` attitudes concerning computerized testing in contrast with the traditional way of testing. 80% of the participants favoured computer-based exams because of the use of splendid representations. In a similar connotation, Ferrao (2009) conducted a study utilizing electronic assessment as a source for evaluating students' achievements at Beira University. The researcher employed a survey to examine students' opinions on topics of statistics and mathematics modules. He used the format of multiple-choice questions in the construction of the electronic measurement. The researcher's primary focus is on conducting a thorough statistical investigation of educators' surveys. The study indicated that educators favoured using electronic assessments, not only in statistics but also in other courses. However, students who failed in the e-exams had a negative view than those who passed. As well, in a chemical engineering package, students' notions of electronic examination in the version of Moodle tests were investigated by Sorensen (2013). The researcher pointed out that students advocated the merits of computerized exams and recommended their application to other educational packages.

Several investigators noted that electronic testing focused on fixed answer questions such as multiple-choice, yes or no, and brief-answer questions. These questions were considered to manifest memorization and recall specific facts that are ineffective for assessing high-level thinking skills referred to by Bloom in his proposed classifications, namely creative, deductive, and productive abilities (Manalo and Sheppard, 2016; Johansson, 2020). On the contrary, other researchers firmly believe that building exams are an art, and instructors can include questions to test learning outcomes of higher thinking abilities (Ebadi and Rahimi, 2018; Lee and Choi, 2017).

Designing and constructing e-exams is not an easy task. This fact is reflected in the production of high-quality tests of an objective nature. Since objective types of assessment require high ability and a lot of time, this is a big challenge for teachers. The time and skill factors required to design high-quality objective assessment tools are considered to be the main challenges faced by electronic exams (Elsalem, Al-Azzam, Jum'ah, & Obeidat, 2021; Gupta, Jankie, Pancholi, Talukdar, Sahu, & Sa, 2020; Guangul et al., 2020; Hsiao & Watering, 2020; Kebritchi & Santiague, Kuikka et al., (2014) conducted a research investigation at the 2017). University of Turku to find out the complexities teachers may well face in the implementation of electronic exams. The researchers arrived at the outcomes, which showed that instructors didn't support the idea of changing their style of testing, and they stressed the use of the traditional way of testing. The researchers made it obvious that the help of quality training and the support of experts in the domain of e-exams might change teachers` attitudes. This requires specialized committees to reinforce the use of electronic exams. They would provide teachers with technical and pedagogical guidance. The planner of the electronic exam must adhere to the teaching principles, which not only means following the creative technology, but also the careful and meticulous planning of the whole process (Hsiao & Watering, 2020). The practical investigation of Jamil et al., (2012) brought to light the perspectives of instructors at Pakistani universities relating to computerized testing compared to the traditional way of testing. From the study results, it was found that instructors demonstrated their keen concerns regarding the challenge of designing question forms that are objective for computerized tests, especially filling blank spaces, matching points, and short answers questions.

In his study, James (2016) examined students' views of e-exams and found that first-year students at Australian universities were accustomed to using technology. However, due to a lack of experience in the field of online learning, they had concerns about technical issues and Internet connectivity. The same ideas were dealt with by Whitelock (2006), who warned that the failure of the system could demotivate all who are involved in the academic domain regarding the use of these systems. An exam is practical if students possess the confidence to perform it (Domino & Domino, 2006). Hence, proper plans and policies were required to keep the systems running smoothly (Whitelock, 2006). These are administered and followed up on through organizational structures.

Many researchers highlighted the need for security connected with eexams and recommended different ways to improve it (Gamage, Silva, & For instance, Anusha et al, (2012) questioned Gunawardhana, 2020). cheating in online assessments. The researchers proposed using webcams to monitor students' performance during exams and recommended the use of the Web-Lock such as Respondus Lockdown Browser and secure exam browser, such software shows the online exam content, while simultaneously the applications are blocked when the exam is in progress. Authenticating the examinee's identity is another way of security requirement. Maintaining this could be through the use of a variety of ways including hardware and software like cameras and identity verification (Duhaim, Al-Mamory, & Mahdi, 2021; Pettit, Shukla, Zhang, Sunil Kumar, & Khanduja, 2021; Turani, Alkhateeb, & Alsewari, 2020; Sarrayrih & Ilyas 2013).

To conclude, the section above reviewed specific studies connected with using e-exams and e-pedagogies in higher institutions. Some studies tackled the advantages of e-exams from the perspectives of learners compared to the traditional way of testing. Other studies highlighted the skills needed to design electronic exams. Also, some researchers hinted at the vital importance of the security of e-exams and how this factor had to be fulfilled in conducting digital exams. However, other researchers discussed the limitations of e-exams to specific types of questions and the challenges of performing them, especially with the factor of cheating, failure of the system, and Internet connection. The overall points that most researchers agreed upon were related to the fairness of e-exams, saving time, and the practicality of applying electronic exams for large classes.

The studies mentioned above clearly indicate that it is important to review and evaluate teachers', students', and their perspectives on remote and face-to-face assessments. Our experiences of the Palestinian classes made our inquisitiveness and interest tense. Our talks with students and teachers over time indicated that their circumstances were an aspiration for them, still, day-to-day observations and interactions of the classrooms environments and students revealed proof of this. This current condition of a transition stage thus evoked the researchers to investigate students' perceptions of their experiences, and in essence, the research answers these research questions that promoted our investigation:

- (1) How do university students perceive the difference in the implementations of both remote and face-to-face assessments?
- (2) How do students view the difference in the implementations of the remote and face-to-face assessments based on their university and gender?
- (3) What are the students' attitudes toward doing an online assessment and face-to-face exams, remote assessment usefulness and face-to-face assessment, the difficulties of doing the remote and face-to-face assessment, suggested solutions for eliminating cheating?
- (4) Which mode do students prefer the traditional method of doing exams or online exams?

The above questions hence give a basis for understanding students' perspectives on remote and face-to-face assessment.

# 3. Methodology

The study was carried out in the academic year 2021/2022 on four universities in the north of Palestine, where 40000 university students are enrolled in these universities. The study's participants draw on 20% of the universities population. The questionnaire survey was implemented to collect data from the sampled students. The sample distribution is clear in table (1) down. The researchers surveyed participants to show their perceptions after finishing off the questionnaire survey. The survey domains were designed to highlight students' perceptions of the difference in the implementation of remote and face-to-face assessment, and the most frequent challenges facing remote and face-to-face assessment. SPSS software is used to analyse the collected data.

#### Table 1

Variable	Variable level	Frequency	Percentage%
University	Al Quds Open University	3760	47
	Al-Najah	4240	53
	Total	8000	100.0
Gender	Male	5280	66
	Female	2720	34
	Total	8000	100.0

Details on sample and population

The questionnaire was based on research studies conducted by Zhang, Yan & Wang (2021), Beebe, Vonderwell& Boboc (2010), and Boyce, Gilmore & Soyer (2011) which focused on learners' perceptions of the difference in implementation of a remote and face-to-face assessment. We estimated the Cronbach's alpha reliability coefficient which is 0.88.

Qualitative data were obtained from the survey questions. The authors depended on SalDana 2009, p. 17 preliminary jottings. First, codes were typed down on a separate sheet during data entry to be later dealt with in more depth. After that, we entered the codes onto the *find* option in the Main document of Excel, to estimate the frequency of the codes. Then, we

clustered the codes to create themes. For instance, we asked the respondents *what is your attitude toward doing an online assessment and face-to-face exams?* The expression *positive* or "good", *negative* or "not good" was redundant in manyresponses. We counted the number of the redundant responses after we have examined the responses and excluded any unrelated responses with the themes *positive* or "good", *negative* or "not good". Then, we counted the number of responses. The hundreds to provide a more comprehensive analysis of the responses, the hundreds of open-ended responses were highlighted, estimated, and grouped into themes. Such counting helped us to investigate students' attitudes toward doing an online assessment and face-to-face modes of exams, the usefulness of face-to-face assessment and remote, the difficulties of doing face-to-face assessment and remote, suggested solutions and solutions for eliminating cheating.

## 4. Results and discussion

# 4.1. The perceptions of digital and face to face assessment implementation in higher education institutions

The researchers surveyed students to get their impressions and challenges of digital and face-to-face assessment implementation in higher education institutions. Table 2 presents the results.

#### Table 2

*Perceptions survey results in face to face and digital assessment implementation in higher education institutions* 

Domain	Mean	Std. Deviation	Percentage	Degree of agreement
Students' perceptions of the pedagogy of doing an online assessment and face to face exams	3.48	0.35	69.6	Moderate
The validity factors of students of doing online assessment compared to the traditional method of assessment	3.22	0.40	64.4	Moderate
The security of doing an online assessment and face to face exams	3.03	0.41	60.6	Moderate
The affective factors of students on doing their online assessment in contrast with the traditional method of assessment	2.78	0.36	55.6	Moderate

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Comparing the practicality of doing an online assessment and the traditional ways of conducting exams	2.63	0.39	52.6	Moderate
The response of Students to the reliability of doing an online assessment and traditional method of assessment	2.28	0.28	45.6	Low
Total degree	2.90	0.36	58.0	Moderate

As stated, we surveyed the students to get a very close picture of their perceptions of digital and face-to-face assessment implementation in higher education institutions. The total score results in table 2 show the mean of all the questions as 2.90 with 58%. Students perceived digital and face-to-face assessment implementation in higher education institutions to be moderate as the results suggest. Teachers must consider implementing trial exams of two sorts; digital and face-to-face exams for acquainting students with effective procedures of handling various forms of questions formats. This process is implemented since the pedagogy of doing an online assessment and face-to-face exams as students believed incorporated their beliefs. A very large number of students (69.6%) suggested that they can have immediate feedback with a comprehensive assessment that could help them learn, and add value to their learning. When asked about their perceptions regarding the validity factors of doing online assessment compared to the traditional method of assessment, a moderate number of students 64.4% indicated the appropriateness of the online assessment for their subject areas. Students appreciated the use of online exams as testing their knowledge, and skills as well. They also have indicated that digital or remote assessments play an integral role in higher education during the COVID-19 pandemic lockdown. To enrich students' experiences with the proven need for digital assessment, the curriculum should be designed in a way that provides interactive assessment tasks included in each unit. These assessment tasks are executed by students themselves. The tasks needed to provide instant feedback for students. In this sense, they are maintaining two targets. First, students will have feedback on their learning outputs, and second, build up self-learning knowledge. Concerning the security of doing

an online assessment and face-to-face exams, a moderate number of students 60.6 % show that digital or remote assessments are safe as paperbased assessments including their grades, username and password, cheating, and hacks. The affective factors of students on doing online assessment compared to the traditional method of assessment seem to moderately influence their perceptions, as items 7, 8, 9, 10, and 11 show. When students were asked about the practicality of doing an online assessment compared to the traditional method of conducting exams, items 17, 18, 19, 20, and 21 indicate a moderate degree of responses. Students have shown that digital exams are more practical as they are conducted with less number of papers, less serious health and safety issues, and accessibility of online exams. But, as shown, the mean of items 22, 23, 24, 25, and 26 were low. The response of students to the reliability of doing an online assessment and traditional method of assessment was 45.6%. The results agree with the studies which were undertaken by Özden (2005); Grande-de-Prado (2021); and García-Martín, Baelo, & Abella-García (2021).

# **4.2.** Students' views of differences in implementation of remote and face-to-face assessment based on their university and gender.

Students were surveyed to describe their perceptions of digital and face-to-face assessment implementation in higher education institutions as related to the study variables. We achieved the results by estimating each questionnaire domain's mean and percentages. We asked students to identify their views of the differences in the implementation of a remote and face-to-face assessment. Results are clear in table 3.

#### Table 3

Mean scores and SDs related to students' perspectives on the difference in teachers' implementation using remote and face to face assessment due to university and gender

Variable	Variable	Mean	Std.	calculated	Sig.	
University	Al Quds Open University	2.92	deviation	0.25	1.047	0.297
	Al-Najah	2.89		0.15		
Gender	Male	2.89		0.23	0.672	0.503
	Female	2.92		0.16		

Overall, when studying the university and gender variables, students reported no significant differences in their perceptions of digital and face-toface assessment implementation in higher education institutions due to the university variable and gender. This could be because universities in Palestine have to follow certain quality measures as the Ministry of Education and Scientific Research imposes in their assessments implementation. The results go with the studies carried out by Amro, Mundy, & Kupczynski (2015); Cuadrado-García, Ruiz-Molina & Montoro-Pons (2010); Serhan, (2020).

To provide a more in-depth understanding, participants were asked to answer six open-ended survey questions about their attitudes, usefulness, challenges and solutions, and suggestions for eliminating cheating.

#### 4.3. Students' attitude toward doing an online assessment

To understand how students' attitudes towards doing face-to-face and remote assessments, we asked the participants to answer open-ended survey questions to ask about their attitudes towards doing remote and faceالعدد 70 آب 2022

to-face assessments. The total number of respondents was 161. Table 4 shows the most frequent themes that emerged.

#### Table 4

Students'	attitude	toward	doing	an	online	assessment
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<b>Response</b> Positive	<b>Themes</b> comfortable, good for students, yes, agree with, fantastic, perfect, no stress, easier, okay for me, enjoyable, useful, no pressure, great, satisfied, better	Frequency 154
Negative	Nervous, feeling anxiety, not good, injustice.	12
Neutral	No difference, neutral	4

It is clear that 154 respondents out of 161 have positive attitudes toward doing an online assessment because it makes students feel comfortable, feeling no pressure or stress, as one participant said,

"My view, it is a [really] great idea I feel that I can get more marks as there is no pressure moreover one is not under the control of those who always watch you while doing the exam"

Data further explain why participants' attitudes toward doing an online assessment are negative. Respondents clarified their negative attitudes through the reoccurring of some themes such as: "I feel nervous toward doing online assessment". One respondent stated that

Response Useful	<b>Themes /why</b> Saves time, no stress, longer in retention, comfortable, easy, improves skills, good for lockdowns, friendly with nature, fast results, promotes critical thinking, friendly atmosphere, no anxiety, saves money, no need to commute secure	<b>F</b> 150
Useless Other responses	Technical problems, connectivity, electricity, lack of resources, students cheaters	16

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"There is injustice, because most of the time it is difficult to provide Internet or electricity [permanently], especially when you live in a [far] village and these things are not on my hands"

A similar theme emerged in the responses that students have a neutral point of view and they don't feel any difference between both ways. One participant has mentioned, "In my view, there may be no difference between online evaluation and [face to face] evaluation, because student's level is known to the [instructor]". Such results concur with Alsadoon's (2017).

# **4.4.** Students' beliefs of the usefulness, difficulties, and solutions of doing an online assessment

#### Table 5

Students' beliefs of th	e user doing an	1 online assessment
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Response	Themes /why	F
Useful	Saves time, no stress, longer in retention, comfortable, easy, improves skills, good for lockdowns, friendly with nature, fast results, promotes critical thinking, friendly atmosphere, no anxiety, saves money, no need to commute, secure.	150
Useless Other responses	Technical problems, connectivity, electricity, lack of resources, students cheaters	16

#### \*F: Frequency

Many participants believe that doing the online assessment is useful to their learning because it helps learners to take tests from home, friendly atmosphere, feel comfortable, saves time and money. However, some of the open-ended responses were negative when asked about the usefulness of doing the online assessment. Other frequently recurring themes were related to the technical problems, technical problems, doesn't promote creativity, connectivity, students cheaters, and electricity problems.

# 4.5. Challenges and solutions of doing an online assessment Table 6

Challenges of doing an online assessment

Response	Themes	F
Difficulties	internet connection, digital literacy, electricity cut off, time, stress	144
Other responses	No problems	17

Another question is about the difficulties that students face when doing an online assessment. Most respondents agreed that the internet connection, digital literacy, electricity cut out, time of exams and students' stress were the redundant themes of difficulties. These results concur with the study of García-Peñalvo, Corell, Abella-García & Grande (2020), Luna, & winters (2020).

Students were also asked to suggest solutions based on their experiences during the lockdowns. Table 7 shows the perceived solutions for the challenges that students face when doing an online assessment.

#### Table 7

Suggested solutions for the difficulties that students face when doing an online assessment

Response	Themes	F
Suggested solutions	Provide time to learners, repair systems, training students how to use the online applications, increase internet speed, the university should have good devices,	149
Other responses	Don't know, don't need	12

Students suggested solutions for the difficulties that they face when doing an online assessment. Table 7 clarifies that these solutions such as

giving time to learners during exams, repairing ICT systems, training students how to use the online applications, increasing internet speed, and the university should have good devices. Some of these problems are related to the infrastructure of the ICT systems.

We asked students to express the assessment method preferred for them. Table 8 depicts the most common themes that emerged in students' responses was the method of assessment students preferred.

#### Table 8

Preferred method of assessment	Reason	F
Online assessment	No anxiety, faster, new way, students will have enough time to study, self-learning, feel comfortable, get immediate feedback	55
Traditional assessment	Easier, more serious, online has technical problems, you get better grades, students are used to them, have more time to think, concentrate more, you get real grades,	106

Preferred method of assessment

F: Frequency

The majority of the participants preferred the traditional assessment in language. Students reported that their in-class traditional assessment is mainly easier, more serious, free of technical problems, and students are accustomed to them. On the other hand, in online assessment students feel no anxiety, they are fast, students will have enough time to study, they will be self-learning, they feel comfortable, and get immediate feedback.

# 5. Conclusions and recommendations

This study explored students' perceptions of teachers' practices of remote and face-to-face assessment in learning. Based on the above results from the quantitative and qualitative data, several conclusions can be made. First, it can be concluded that students' gender and university type indicate no obvious differences in their beliefs of remote and face-to-face methods of assessments which are practiced in higher education institutions. This is due to the quality measures imposed by the Ministry of Education and Scientific Research. Second, during the stage of transition in online assessment, they face several difficulties concerning connectivity, digital literacy, and psychological stress and well-being. Third, comparing their preferences which type of assessment suites them better, the majority of students' preferred face-to-face assessment as it is easier for them, they feel it is more serious, they prefer to avoid the technical problems, they get better grades, students are accustomed to them, they will have more time to think and concentrate more. However, when asked about the usefulness and their attitudes towards the two modes of assessment, students expressed that they have positive attitudes towards online assessment and it is more useful. Several solutions arise when students were asked their suggestions such as: to provide time to learners, to repair systems, to train students how to use the online applications, to increase internet speed, the university should have good devices.

Several recommendations and implications can be implied in this context. First, the universities need to improve their infrastructures to succeed in the use of remote and face-to-face assessment modes. This is so because there is not enough infrastructure, no up-to-date technological devices, having adequate opportunities for instructors' training on the use of such modes. Second, the MOHE is recommended to arrange ongoing professional development courses for educators in Palestine. These training sessions are to foster educators with technical skills and expertise in designing digital assessment tasks and activities. Thus, new computer knowledge and skills are very crucial for the success of the process of the online assessment. Third, the involvement of students in the planning of the implementation process is very important. Fourth, instructors in Palestine should include questions to test the learning outcomes of higher thinking abilities of their students.

Fifth, teachers in Palestine should change their style of testing coping up with modernized norms of handling assessment As for the studies that could be implemented in the future, these evaluation modes of remote assessment and face-to-face modes, students' experiences as the underlying foundations to consider the advantages of remote assessment-

based learning policies aimed at home usage. Studies would be welcomed that implement the methodology of quasi-experimental research approaches carried out on school learners, as would be a supply of professional development sessions for training that aim at supporting educators and students to use remote assessments. Awareness is additionally essential regarding universities' infrastructures to support and ensure more reliable remote assessment training, awareness, resource availability, and usage. At last, we pin our hopes on the results of the present research to be boost universities' further prompt to educators' and students' implementations and understandings of remote assessment during this digitalized period in which we all live.

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