Opportunities and satisfactions of higher education students towards online assessment

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Abstract: *With the use of online and virtual learning platforms, traditional evaluation methods have become obsolete. For this reason, online assessment and formative assessment approaches are becoming more popular. For this reason, this study aimed to determine higher education students' opportunities and satisfaction levels regarding online assessment. 285 undergraduate and graduate students participated in the study. The method of the research is a descriptive study. According to the results obtained from the study, students' opinions about online assessment opportunities are positive. At the same time, a significant difference was detected in favour of graduate students according to education level. These findings show that students are open to using online assessment tools and that they can offer useful evaluation options for higher education. The study emphasizes that more research is necessary to improve educational results using online evaluation tools, particularly for graduate-level students.*

Keywords: Online Assessment, Formative Assessment, Higher Education, Opportunities.

1. Introduction

Learning assessment provides teachers and students with constant feedback and teaches students to reason and think instead of merely obeying directions. However, the formative assessment tool adoption rate is low due to a lack of a clear understanding of the tool. Educators and policymakers play a crucial role in educating others about these tools (Musa & Islam, 2020).

There are always some gaps in formative assessment for learning that need to be addressed in the academic sector. One approach to inspiring and motivating is to explore the possibilities of certain formative assessment techniques used during the pandemic and possibly in the future. The significance of online learning for educational innovations is growing and achieving a balance between the accuracy

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and usability of formative assessment technologies will require extensive research in the long run.

Despite its few challenges, formative assessment research is of paramount importance, as its benefits are widely acknowledged (Bhagat & Spector, 2017). This research is integral to developing and improving our educational systems, making educators and policymakers key players in the process.

One challenge is figuring out how formative exams affect students' understanding of the best times and methods for administering them. Whether a formative assessment influences learning more than other factors is another issue rarely the subject of controlled research. A student may begin to generate self-evaluations that mimic the kind of formative feedback thought to be most beneficial for learning advancements. Such a desirable and measured metacognitive learning outcome aligns with self-regulated learning (Butler & Winne, 1995).

It may not be enough to evaluate the effectiveness of teaching methods in the learning process only with academic performance or measurable outcomes. Students' perceptions provide effective feedback on how they experience the process. In addition, how students approach the teaching method or assessment processes can directly affect their active participation. Negative perceptions can cause a decrease in student motivation (Pintrich & De Groot, 1990). The learning process can be effectively organized when it is evaluated not only with academic success measurements but also with how students perceive their learning experiences (Ramsden, 2003). For these reasons, analyzing perceptions helps to understand the applicability and sustainability of the learning method. It may be meaningful to analyze student perceptions without conducting an experimental study. Student perceptions supported by quantitative data are an important preliminary research that can prepare the ground for future experimental studies.

Within this general framework, understanding students' perceived learning opportunities for online assessment methods is an important area of research. Therefore, the following questions arise:

- What are higher education students' perceptions of online assessment opportunities?
- What are the students' satisfaction levels with formative assessment tools?

1.1 Related research

Bezerra (2020) focuses on integrating information technology tools in universities and their impact on teaching methods. The researcher emphasizes that the availability of these technologies in face-to-face and distance education can potentially change teacher-student interactions. Incorporating ICT into the curriculum is a way to develop and promote new education methods. This

increases the demand for continuing education and opens up innovations in research and teaching (Bezerra, 2020). Guilding et al. (2020) found that online formative assessments and active learning improved student learning outcomes. Students reported that answering questions was the most effective way to fill knowledge gaps and strengthen exam skills (Guilding et al., 2021).

Frost et al. (2021) emphasized that formative assessment helps students understand their mistakes and prevent future errors. Furthermore, the best approach to evaluate learning is performance-based since it shows how successfully students apply the knowledge, abilities, and skills they have just acquired (Frost, Matta & Kenyo, 2021; Jacob, 2020). A study conducted in 2020 by Baig et al. found that students and instructors are becoming more accustomed to learning management systems (LMS). Online and traditional in-person training are combined in blended learning. LMS is used all over the world. One of the most important examples of a virtual learning environment is Blackboard, a particularly designed course management system and e-learning platform. Among other things, it distributes and arranges homework and provides online exams. In Cekiç and Bakla's (2021) study, it was stated that digital formative assessment methods positively affect educational processes by using them together with traditional methods. Socrative, Plickers, Kahoot, Google Forms, Google Forms, Quizzes and Nearpod are among the most commonly used technologies in the study (Çekiç & Bakla, 2021). These technologies increase student motivation and engagement by creating gamification and interactive classroom environments. Teachers are encouraged to use these tools that integrate assessment with education.

The purpose of Yenmez and Gökçe's study in 2021 was to evaluate the effect of Web 2.0 technologies used for measurement and evaluation purposes in virtual learning. It has been stated that gamification applications such as Quizizz, Kahoot and Socrative, as formative assessment tools, have an indisputable benefit regarding the exam result (Yenmez & Gokce, 2021). In traditional learning environments, the teacher determines the level of the learners throughout the learning process, what the goals are, and what needs to be done to achieve these goals (Yarahmadzehi, N., & Goodarzi, 2019). The teacher is responsible for the tasks of designing and implementing a successful learning environment.

The establishment and exploitation of instructional contingency situations for the goal of regulating learning processes are important to formative assessment (Wiliam & Thompson, 2017). It's a crucial component of a teacher's work in the classroom and paying attention to developing one's methods will boost students' accomplishments. In the formative assessment process, the teacher must design activities that will encourage learners to think more. In addition, learners are expected to actively participate in the learning process (Black & Wiliam, 1998).

Black & Wiliam (2003) stated in their study that formative assessment processes have achieved successful results in different subject areas, at different levels of education, and with different types of knowledge and skills. The study

also determined that student scores, especially for students who may be less talented, do not have much effect on formative assessment processes, but the quality of feedback is an important factor.

Learners should be guided on how to use feedback from teachers, the qualities of the projects they produce, and approaches on how to improve these qualities. It cannot be assumed that learners understand what they need to do after feedback is given (Sadler, 1998). The main purpose of formative assessment processes is to improve learning processes (Wijesooriya, Heales & Clutterbuck, 2015).

Rawekar et al., in their study investigating the effect of formative assessment practices for students in graduate institutions, stated that students' scores increased after the application. For this reason, it can be said that formative assessments are valid, acceptable and efficient for graduate students (Rawekar et al., 2020).

2. Methodology

This descriptive study was conducted to determine higher education students' opinions and satisfaction levels regarding online assessment methods and formative assessment tools.

2.1 Participants

Near East University undergraduate and graduate students (n=285) participated in the study. 44.9% of the participants were females, and 55% were males. In addition, when we look at the students' education level, 58.9% are undergraduate students, and 41.1% are graduate students.

2.2 Data collection tools

The data collection tool consists of 3 sections. The first part includes questions about demographic information. In the second part, there are questions to determine university students' satisfaction with the online formative assessment tools they have used. In the last part of the data collection tool, the digital natives' opinion scale for online assessment was developed by (Ndibalema, 2021). The original scale consists of a 4-point Likert scale and ten items. In this study, the 10-item scale was used as a 5-point Likert scale. Likert-type scale from Strongly Agree (5 points), Agree (4 points), Neutral (3 points), Disagree (2 points) and Strongly Disagree (1 point). Cronbach's Alpha analysis was performed on all ten items to determine the scale's reliability; as a result, it was defined as .903. This result shows us that the results obtained are reliable.

2.3 Data analysis

While frequency, mean, and independent sample t-test analyses were used to analyze quantitative data, open-ended questions were analyzed using an in-depth analysis technique.

3. Results

3.1 Higher education students' opinions on online assessments

The results obtained from the analyses conducted to determine the opinions of higher education students on online assessment are presented in the table below.

Table 1. Opinions towards online assessment opportunities

Items	Mean	SD
"Online assessment enhances my thinking beyond the four walls of learning"	3.66	.765
"The online assessment offers the possibility of self-checking on the current level of knowledge, which motivates me to work further"	3.72	.685
"Immediate results obtained upon test completion are motivating for further learning"	3.81	.687
"Online assessment offers the possibility of verifying errors and making corrections at any time to fill in my knowledge gaps"	3.74	.788
"Online assessment provides instructors with immediate feedback to improve my learning"	3.77	.432
"Online assessment provides an unbiased grading, which improves my learning process"	4.09	.765
"Online assessment of self-learning and problem-solving skills"	3.74	.342
"Online assessment improves my technological technical skills"	3.82	.234
"Online assessment is appropriate for learning for all students and those with disability"	3.63	.123
"System feedback helps me to reflect on my merits in learning"	3.75	.543
General opinions of students towards online assessment	**3.77**	**.656**

According to the findings obtained from the analysis, students agree with the statement, "Online assessment provides unbiased grading, which improves my learning process." Higher education students rated the statement, "Online assessment is appropriate for learning for all students and those with disabilities," the lowest within the limits of agreement.

Higher education students' overall opinions about the possibilities of online assessment are also positive.

3.2 Comparision of higher education students' views on online assessments according to education level

The findings obtained from the analyses conducted to determine the opinions of undergraduate and graduate students towards online instructors are presented in the table below.

Table 2. Online assessment opportunites opinons of students according to education level

Relationship variable	N	Mean	SD	Mean difference	t	P
Undergraduate	168	3,667	.873	.2688	2.671	.008
Graduate	117	3,936	.779			

According to the results obtained from the independent sample t-test analysis, graduate students' views on the opportunities of online instructors were more positive than those of undergraduate students. This may be because graduate students have more academic experience than undergraduate students, which helps them understand the advantages better. In addition, graduate students may have used online environments more in their learning process and gained more experience. Therefore, they may have evaluated online assessment opportunities more positively.

3.4 Higher education students' satisfaction levels towards formative assessment tools

The results from the research satisfaction with the tools they use in their learning processes are presented in the table below.

Table 3. Satisfaction levels of students towards formative assessment tools

Formative Assessment Tools	Mean	SD
Peergrade	3,46	,785
EdPuzzle	3,38	,816
Quizlet	3,71	,906
Google Forms	3,85	,922
Google Classroom	3,72	,931
Nearpod	3,45	,857
Kahoot	3,41	,890

According to the results, students are generally satisfied with the tools used in formative assessment processes. Google Forms and Google Classroom were the tools with which they expressed the most satisfaction. Their satisfaction levels may be high because the user-friendly interfaces of Google tools do not require technical knowledge and skills, preventing them from encountering difficulties. In addition, many of the Google tools are used in many educational institutions and students may be familiar with these tools in their previous learning processes.

4. Discussions and conclusions

The study's results show that higher education students' opinions on online assessment and formative assessment tools are generally positive.

Students stated that online assessments help them develop their thinking skills, allow them to check their knowledge level, provide instant feedback, increase motivation, and provide more learning opportunities. Opportunities such as unbiased grading were also found to be important factors.

Satisfaction with formative assessment tools was generally positive for all tools. However, more work is needed on the accessibility and inclusiveness of online assessments. Educational institutions must make more efforts to ensure that formative assessment platforms are accessible and fair for all students.

Moreover, graduate students' more positive opinions of online assessments may be attributed to their academic experience and familiarity with online tools. This finding suggests that as the level of education increases, online assessments may be adopted and evaluated more positively. These results indicate that higher education institutions should consider student groups' different needs and experiences when designing online assessment systems.

In conclusion, educational institutions should continue to improve the use and accessibility of online assessment tools to increase student satisfaction and make learning processes more efficient.

As with every study, this study has some limitations. Some of them are that it is limited to a certain group of students and the statements in the scale. In future studies, it is aimed to be carried out with different research methods to a wider audience.

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