Quizizz Online Digital System Assessment Tools

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Abstract—The era of the industrial revolution encouraged activities to implement online-based technology as well as the implementation of assessments. Good and valid online tools are needed in this case quizizz. The purpose of this study is to determine the response of mathematics education students to the application of quizizz online exams, to analyze quizizz midterm scores. The method of research carried out includes the applied method, responding to quizizz in conducting learning assessments of multimedia learning. The research subjects were fourth semester students while the instruments used in the study consisted of quizizz tests and questionnaires. The results showed that students were very responsive to the application of quizizz during the midterm, although the average score was still low but students accepted the results and tried to improve them. Quizizz easily presents the problem by analyzing the results of detailed answers to help the teacher or lecturer in implementing the assessment.

Keywords— assessment, digital, quizizz

I. INTRODUCTION

Three important components in an organization or institution's activities are planning, implementation, and assessment. To arrive at the right assessment requires the right and fast instruments and tools. The use of digital-based technology can be an alternative solution. We find higher involvement and enjoyment among online students and experience points that significantly increase their learning effectiveness [1]. Online assessment strategies provide meaningful and timely feedback to students regarding the quality of their work [2].Digital activities must of course be accompanied by digital assessment in this case with the use of quizizz. Quizizz is a game-based educational application, which brings multi-player activity to the classroom and makes it in interactive and fun training classes [3]. Assessment itself is not just to find a row of numbers without meaning but more than that as part of a feed back to the planning and implementation of an activity in this case the assessment of lectures in universities. Students as users or parts that cannot be separated from the assessment are very critical of the assessment results so that with open access and fast response the assessment results as part of the assessment really need it. Quizizz is an online assessment tool as a fun multiplayer class activity that allows all students to practice along with their computer, Smartphone and iPad [4].

Turning conventional learning paradigms into digital based ones such as android encourages lecturers or teachers' mindset to be sensitive to technology. Open and adaptive insight is needed in the current era of industrial revolution 4.0. Innovations designed in assessment can strengthen the feedback students receive about their learning to produce substantial learning outcomes [5]. So that the improvement in the implementation of assessment will have an impact on the quality of learning. The existence of peer interaction through interactive multimedia will build communication patterns and learning processes that require communication can improve students' communication skills well [6]. More and more internet users and gadgets need to be accompanied by the use of gadgets in learning activities so that, for example, during the lecture process online or lecture in the network so that face-to-face activities are not limited by space and time but can be done anytime and anywhere online can increase motivation to class activities and trigger student interest in the material taught so that teachers are expected to integrate cellular technology to improve learning in their classrooms [7][8]. Mobile learning is prospective and progressive learning to be implemented have become attractive learning devices, students respond positively to mobile learning [9][10].

Quizizz is an educational application that applies the gamification concept [1] that students show a position attitude for quizzes as an online teaching and assessment tool during Arabic class [4]. A small number of students feel discouraged to participate in the game because they don't master the basics of Kahoot! and Quizizz well. Mentoring is needed for peers or teachers to be able to use Quizizz or Kahoot [7]. Quizzes can also be used in flipped class lectures [11]. To develop an online-based assessment system that can use quizizz software, this software can present online questions in the form of multiple choice, mapping, true and false, and short entries. Quizizz is an educational application that allows students to participate in fun multi-player class activities [3]. Learning evaluation does not become an obstacle or burden during the process and checking results, through the quizizz application can help facilitate the implementation of the evaluation. This study investigates the feed back of students to use Quizizz in multimedia learning mathematics classes. In addition, this study examines the effect of Quizizz application frequency on student feedback and lecture assessment in basic teacher training courses.

Which according to some students the subject is more to the level of teacher theories that prepare prospective students to become teachers.

II. RESEARCH METHOD

The type of research conducted is applied research applying technology, namely quizizz application which is used as assessment tools. The subjects of this study were 36 fourth grade students of fourth semester mathematics education study programs at one of the universities in Bandung. The instrument used is an online test question with quizizz on multimedia learning mathematics subjects and questionnaires. Assessment in multimedia courses generally consists of quizizz tutorials with peers, midterms, individual assignments, structured assignments and final semester examinations. The midterm exam uses quizizz while the final semester exam makes teaching aids in mathematics.
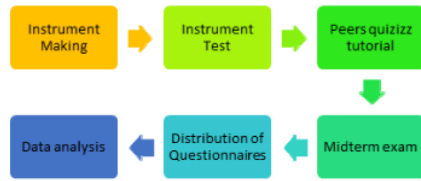

Fig. 1. Research steps

III. RESULTS AND DISCUSSION

Quizizz is very similar to Kahoot, the teacher chooses a quiz to start. Game codes are provided. Players direct their browsers to join. Quizizzz.com and enter the game code, along with their names [12]. Quizzes are some of the main differences from Kahoot. The use of one of the quizizz technologies in lecture assessment is able to provide easy design of questions, control or supervision, and examination of examination results very quickly. The initial appearance of quizizz is as follows:
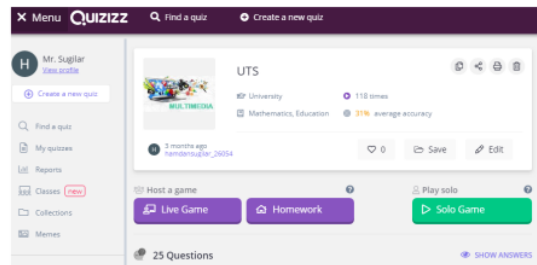

Fig. 2. Display of the beginning of the midterm exam with quizizz

Based on figure 2. It appears that quizizz presents test or quiz services online without having to register first, students can immediately take the test. More detailed analysis presented by quizizz as follows:More detailed analysis presented by quizizz as follows:
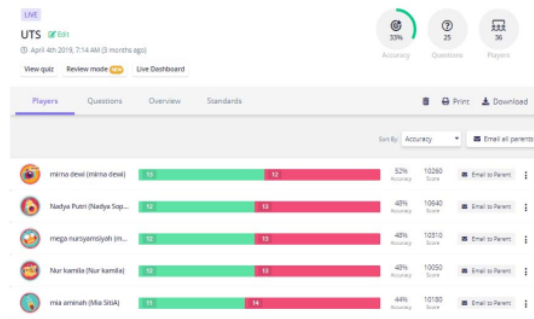

Fig. 3. Analysis of the middle semester student test answers

Based on figure 3 is the breakdown of the results of students' answers in a comprehensive manner showing a ranking of the ability to answer test questions as well as the position among friends Quizizz applications have a positive impact on their learning experience. Class sections where Quizizz is applied more often report higher scores on satisfaction using this application and higher scores on instructor teaching assessment [3]. Through the implementation of quizizz minimize the existence of fraud so honesty is highly upheld. Between students with each other even though they are done simultaneously in a sequence of questions that are not the same. To find out the results of the midterm exam with quiziz data is presented into three groups consisting of high, medium and low groups based on the ranking of the test results.

TABLE I.   RESULTS OF GROUP 1 MID SEMESTER EXAMS

Players	Score	Accuracy	Started At	Info
A1	10260	52%	Thu 04, Apr 07:17 AM	IP Address: 140.213.20.58 Chrome Mobile on Generic Smartphone
A2	10310	48%	Thu 04, Apr 07:17 AM	IP Address: 116.206.14.10 Chrome Mobile on Generic Smartphone
A3	10050	48%	Thu 04, Apr 07:17 AM	IP Address: 120.188.33.249 Opera Mobile on CPH1803
A4	10640	48%	Thu 04, Apr 07:17 AM	IP Address: 114.5.147.40 Samsung Internet on Samsung S2
A5	9100	44%	Thu 04, Apr 07:17 AM	IP Address: 120.188.94.79 UC Browser on HUAWEI S2
A6	9810	44%	Thu 04, Apr 07:17 AM	IP Address: 114.5.209.49 Chrome Mobile on Generic Smartphone
A7	8320	40%	Thu 04, Apr 07:17 AM	IP Address: 140.213.16.124 Chrome Mobile on Generic Smartphone
A8	8960	40%	Thu 04, Apr 07:17 AM	IP Address: 182.0.148.101 Chrome Mobile on Generic Smartphone

Based on the table 1 is a table of midterm results in the high group with an average of 43% and a standard deviation of 5%. This data is taken directly from the results of quizizz analysis that displays the score, the accuracy of the time the ip address is used, this helps the teacher or lecturer in analyzing the results of the exam so that it can be a feed back about the abilities obtained. The average does not meet the standards of good or enough values, all students are at a lesser level, but students are aware and will try to improve the results of the exam because the quizizz application can be immediately known by users. Midterm results in the middle group with an average of 32% and a standard deviation of 3%. Value accuracy is the value of the test results so that the value is entered at a less level. One of the contributing factors is lack of understanding the material well with limited time. Midterm results in the low group with an average of 21% and standard deviation of 7.40%. The red color indicates that the value is very less. One of the contributing factors is being anxious about online exams and lack of preparation. There is one student because the technical obstacles did not take the exam.

The average score of the multimedia exam with Quizizz is 20% with a standard deviation of 11%. The midterm test score is in the low category because there are no students whose value is more than 60% (value 60 on a scale of 100) according to students there is anxiety when the exam takes place. and confusion about operating the quizizz application because it was the first time using it. In addition, there is an assumption that students of mathematics education are more relaxed in learning basic education courses so that their learning outcomes are not maximized.

TABLE II.   RESULTS OF QUESTIONNAIRES ON STUDENT RESPONSES TO QUIZIZZ

No.	Statement	(%) Yes	(%) No
1.	Quizizz presents an easy-to-use online exam feature	72.22	27.78
2.	Online exam with Quizizz reduces cheating	61.11	38.89
3.	Quizizz test results are very objective	58.33	41.67
4.	I am very happy with the online exam compared to the test paper	52.78	47.22
5.	I feel difficult and tense when I go online	52.78	47.22
6.	Using Quizizz is effective in increasing my involvement on the Internet class	69.44	30.56
7.	Doing exercises in class using Quizizz reduces interference caused by cellphones or other electronic devices.	58.33	41.67
8.	Quizizz motivates me to read hard	52.78	47.22

Based on table 2. The responses of students to the use of quizizz almost eight statements were given a positive response of 50% more, but it was found that 52.78% felt tense when the test was due to time constraints and fear of excessive wrongdoing, besides not understanding the instructions correctly.

Quizizz can be said as interactive multimedia that can be used as assessment tools. Multimedia principle is a theory that is studied in depth by Richard Mayer. Mayer said that the combination of words and images was more conducive to learning, compared to those consisting of text or images. The results of the study show that students are not more deeply involved in learning when the learning only consists of text, it will not connect between what they read in the text with new or pre-existing knowledge. Multimedia learning occurs when students construct mental representations of the words and images that have been presented. For the purpose of the research program, multimedia instructional messages are presentations of material using words and images intended to encourage learning. [13] Quizizz presented to students contains multimedia theories where there are combinations of audio and visual forms presented in the form of assessment.
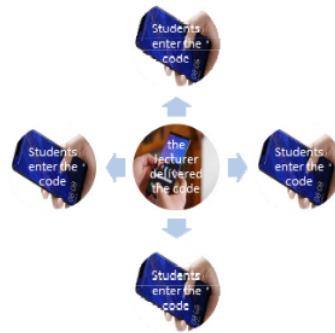

Fig 4. Test process with quizizz

Based on figure 4, the illustration of the exam process with quizizz, the lecturer as the operator who arranges the implementation of the test and delivers the game code to students. Uniquely with quizizz there are no questions coming out simultaneously so the questions are randomly distributed to users or tested. Students who have inputted the code will appear on the lecturer screen whose position can be an operator, so that if an unknown participant can directly be deleted. Another advantage of using quizizz is that the code given by the lecturer is very unique and will be different when tested in another class, so that the level of confidentiality of the instrument can be maintained. This type of multimedia can be made in various forms, interactive multimedia, linear and hyperactive. One example of hyperactive multimedia is multimedia moodle. Moodle is built around ideas for learning that occur when a group of people builds on one another, creates, collaboratively, a small culture of artifacts together with shared meaning. Using multimedia in this way can provide more opportunities, to a group of teachers and students, for construction, in this case, multimedia artifacts. We will try to use multimedia not only as a product for better delivery, but also to improve the ways in which students can build it [14]. The results show that students learn something from quizzing through Kahoot, Quizizz and Google Forms. However, there are significant differences in concentration, involvement, enjoyment, motivation, and satisfaction. Kahoot and Quizizz have presented many positive things on Google forms when used in classrooms [12].

IV. CONCLUSION

Quizizz is easy to use and can make it easier for teachers or lecturers to carry out assessments because it can quickly find out the results of the test answers and their analysis. Students assess that quizizz is fun, helps them review subject

matter and stimulates their interest in learning because there is a ranking of exam results so that they have a strong desire to compete to be at the forefront. Overall, this study found that Quizizz was considered to have a positive impact on student involvement and learning outcomes and became feedback on lecture implementation.

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