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Implementation of Kahoot as a Digital Assessment Tool in English Formative Test for Students of SMP Negeri 2 Temanggung

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Article Info

Abstract

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The paper aims to investigate the applicability of the Kahoot as a digital assessment tool. The participants of this study were 32 students of 8G at SMP Negeri Temanggung in the academic year 2019/2020. Kahoot was implemented in English formative test. This is a mixed method with survey technique to collect data and qualitative descriptive analysis to analyze the data. The results of the study indicated that the students thought that Kahoot was enjoyable, informative, useful, and fine. Those were analyzed in descriptive qualitative method. The finding revealed that the students had good perception on using Kahoot in their English formative test. They could actively participate on the test and get the result directly from the teacher after all the students finished the test. The validity, reliability, and practicality of the test can be seen from the content designed by the researchers. The practical usage of the application was also an important aspect to be analyzed. Due to COVID -19, the students and teacher could not do the test in the classroom setting whereas they did the test at home. The use Kahoot was found to be more effective than that of a paper-based test. The students could enjoy doing the test at home. It can be implied that the use of Kahoot supported the teachers, students, schools, and stake holders in terms of the application of distance learning.

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INTRODUCTION

The digital technology usage for educational purposes, including second and foreign language learning is expanding fast. Most of students in this era would expect to use digital devices to carry out an Internet browse when they write a paper to look for a suitable website to practice a language skill. Teaching, learning, experience, testing and evaluation, and teaching-learning process have an important role in education.

According to Kaya (2003) the process of teaching and learning is always in a cycle with planning, implementation and assessment. This is also in line with Basol (2015) that testing and evaluation are required in each area where teaching occurs, since assessment and evaluation are essential components in teaching. In other words, it can be concluded that testing and evaluation are the measurement of the successful teaching and learning process. Increasing studies showed that each part of the education process is closely related to the measurement and evaluation is the factor that makes measurement and evaluation an indispensable element (Yıldız & Uyanık, 2004). The process cannot be separated to each other.

The idea that digital technologies can help transform education and specifically assessment is not a new one. New technologies and tools have long been seen to open up new possibilities due to their potentially beneficial characteristics or affordances, such as offering more personalized, instantaneous or engaging assessment experiences. In many cases this potential has been realized and demonstrated benefits. However, the literature suggests that the use of digital technologies has yet to be 'transformative' and is often used via traditional assessment methods or within pockets of innovation that are not widespread.

Assessment is generally recognized as one of the most crucial elements of an educational experience. The assessment used by teacher is formative assessment. Good (2011) explains that formative assessment is used to gather information related to appropriate learning content, context, and learning strategies and to fill the existing gaps between the students' current performance and the targeted learning goal. It is also seen as one of the hardest to reform. However, there is an increasingly demonstrated need for assessment reform, particularly if it is to keep up with other theoretical, cultural and technological developments affecting teaching and learning. Current assessment methods, especially the heavy emphasis and priority afforded to high-stakes summative assessment, are often described as outdated, ineffective and at worst damaging.

The evaluation, on the other hand, is the process of decision-making based on the assessment results. The concept of evaluation incorporates assessment (Şaşmaz Ören, 2014, p. 277). That is why, the teacher as a decision maker should decide on what to assess and how to evaluate this later. The assessment includes the materials given by the teacher. The teacher then design the way he assess students formative test. That is why the researchers would like to address the above problem into research entitled The Implementation of Kahoot as a Digital Assessment Tool in English Formative Test.

Digital assessment tools provide teachers with instant feedback and make them do individual or group assessments in a lively and competitive environment (Yılmaz, 2017). Digital assessment in education is important in terms of feedback, control of the learning rates that vary from individual to individual, and learning quality to be achieved at the end of the assessment process. Continuous measurement and evaluation activities should be carried out in digital education in order to avoid problems in the aforementioned issues (Balta & Türel, 2013). Hague and Payton (2011) propose some suggestions for the teachers on the use of the digital technologies in the learning and teaching process. These recommendations are; be informed about the technological tools to be used, identify supplementary resources to be needed, and prepare contingency activities for the students against the possibility of encountering any problems.

Bennett (2002, p.14) argued that the "incorporation of technology into assessment is inevitable." However, as has been demonstrated by the introduction of many new 'innovative' technologies, the view that educational reform

through technology is 'inevitable' and pre-determined is usually tempered by the challenges in implementation and complexity of change in education systems. Indeed, Bennett goes on to acknowledge that 'it is similarly inevitable that incorporation will not be easy'.

Research has shown that formative assessment (or assessment for learning), as distinct from summative assessment (or assessment of learning), is a powerful tool that benefits learning and student achievement (Black & Wiliam et al., 1998). Nicol and Macfarlane-Dick (2006) developed further ideas about the importance of 'self-regulated learning,' which identified an important role for students in their own assessment. However, even as evidence grows on the benefits of feedback through formative assessment and more teachers employ these methods, it still remains in the shadow of high-stakes summative assessment's level of influence and unshakeable prioritization on national and international stages.

METHODS

Mix-methods research is an approach to inquiry that combines or associates both qualitative and quantitative form (Crasswell, 2007). These methods were adopted in this study to investigate the applicability of the Kahoot as a digital assessment tool in Junior High School. The quantitative data is presented and counted by using SPSS Program. The qualitative research is a study in which events and phenomena are revealed in a natural environment by using data collection methods such as interview, observation and document analysis (Mason, 2002).

The writer used the results of the students' formative assessment of junior high school as the main data sources. Furthermore, the researcher analyzed the results of students' English formative test that would be conducted by the teacher.

The participants of the research were 30 students of 8G Class and a teacher in SMP Negeri 2 Temanggung in the academic year 2019/2020. The researchers chose one class because of the availability of the gadget they use at home in this distance learning during COVID-19.

The data collection technique used was questionnaire. According to Brown (2001) questionnaire is any written document that provides respondents with a sequence of questions or statement in which they are to respond either by writing out their answers or choosing from an already existing or given answers. To know the students' perception on using Kahoot, interview by using Whatsapp application that was addressed to the teacher to know her perception on using Kahoot, and observation during the assessment process. The data were also taken from the result of the students' formative test.

In order to investigate the applicability of Kahoot in Junior high school 2 Temanggung, the implementation was performed for forty minutes in English formative test. After the application was performed, opinions of the students were gathered by using questionnaires asking personal information questions and open-ended and closed-ended questions. In addition, opinions of the teacher were obtained by using questionnaires asking open-ended questions and personal information. The questionnaire for students contained questions about the students' general thoughts about the Kahoot, the difficulties when using it, and likes and dislikes about it. In the questionnaire prepared for the teacher, there were questions about his general opinions on the Kahoot application, and her likes and dislikes about it

RESULTS AND DISCUSSION

This section discusses findings of data analysis to answer research questions. The focus of data analysis is on the students' perception, validity, reliability, and practicality, applicability, effectiveness, and implications of Kahoot in English formative test.

Students' perceptions on Kahoot

Feldman (2011) states that perception is the process by which organism interpret and organize sensation to produce a meaningful experience of the world. Perception generally consists of an observation on certain situation or environment. It can be a mental image, concept or awareness of the environment elements through physical sensation or physical sensation interpreted in the light of experience and captivity for comprehension. Based on the finding from

questionnaire and interview, it showed that most of the students have good perception on using Kahoot, whether for the teacher as the practitioner or the students as the participant. The data were collected by using online observation through application, students' questionnaire, interview, and the learners" achievements. Those were analyzed in descriptive qualitative method, though there was quantitative analysis on students' questionnaire by using SPSS Program.

Cetin (2018) found that Kahoot was enjoyable, informative, useful, perfect, and fine. It implies that Kahoot is not only a digital assessment but also as a tool for assessing students' test. The simplicity in using Kahoot makes the students comfortable to work with the application because they can access Kahoot through their smartphone and all the process of registration can be done easily.

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Table 1. Students' perception on using Kahoot

Subjek	NO Item													Σ
	1	2	3	4	5	6	7	8	9	10	11	12	13	
Student 1	4	4	4	4	5	4	4	4	4	4	4	5	4	54
Student 2	5	4	5	5	4	4	3	2	4	4	5	3	5	53
Student 3	5	4	5	5	4	4	5	4	4	4	4	4	4	56
Student 4	4	4	4	4	3	4	4	4	4	4	4	4	4	51
Student 5	5	4	4	5	3	4	4	3	5	4	5	4	3	53
Student 6	4	3	5	4	5	4	5	3	4	4	5	4	4	54
Student 7	4	3	4	5	5	5	4	5	5	4	5	5	4	58
Student 8	5	5	4	4	5	4	4	4	4	5	4	4	5	57
Student 9	4	3	4	4	4	4	4	4	4	4	4	4	4	51
Student 10	5	4	4	5	3	4	4	3	5	3	5	4	3	52
Student 11	4	5	4	5	4	4	4	4	4	5	5	4	4	56
Student 12	4	4	5	4	4	4	4	4	5	4	5	5	4	56
Student 13	5	4	4	5	3	4	4	3	5	3	5	4	3	52
Student 14	4	2	4	3	2	3	4	3	4	2	3	3	5	42
Student 15	4	4	4	4	4	4	4	4	4	4	4	4	4	52
Student 16	5	4	5	3	5	4	4	4	4	5	4	4	4	55
Student 17	5	4	4	3	4	3	4	4	4	4	4	4	4	51
Student 18	4	4	5	4	4	4	5	4	5	5	4	4	4	56
Student 19	5	5	4	4	5	4	4	5	4	5	5	5	4	59
Student 20	4	4	3	4	3	4	5	4	4	4	5	4	4	52
Student 21	5	4	4	5	5	4	4	4	5	4	5	4	4	57
Student 22	4	5	4	4	3	4	4	3	4	4	3	4	3	49
Student 23	4	4	5	4	4	4	5	4	4	4	5	5	4	56
Student 24	4	4	4	4	3	4	4	4	4	5	4	4	4	52
Student 25	5	4	4	4	5	4	5	4	4	5	4	4	5	57

Degree of agreement
1. Strongly disagree
2. Disagree
3. Slightly agree
4. Agree
5. Strongly agree
Min: 42   Max: 59

The result of the students' perception about the Kahoot application was as follows: there are 13 students who gave high responds on the use of Kahoot kahoot. It means that 52% of the students agree that Kahoot is a good application they used in English formative test. 11 students or 44% of the students gave medium respond or the researcher can say that they have good perception using kahoot. There was only one student who had low perception on using Kahoot. Turan and Goktas (2015) also reported that students like Kahoot application, as well as the fact that lesson is applied. From the statements above it can be concluded that Kahoot is a digital assessment tool that is appropriate to be used by junior high school students at SMP Negeri 2 Temanggung. Table 1a showed that most of the students have good perception on using Kahoot. 13 students gave really high score, 11 students gave medium score, and only 1 student who gave low score on the questionnaire.

The validity, reliability, and practicality of the students' formative test on using Kahoot.

Validity refers to the evidence base that can be provided about appropriateness of the interferences, uses, and consequences that come from assessment (McMillan, 2001). The first characteristic of a good test is validity. The students' formative test on Kahoot is valid. It measured the students' understanding of the use present continuous tense and simple present tense. It based on the material that was given by the teacher previously. It did not measure something else. According to Brown (2010), a valid test of reading ability actually measures reading ability and not 20/20 vision, or previous knowledge of a subject, or some other variables of questionable relevance. Mousavi (2009) refers validity as the degree to which a test looks right, and appears to measure the knowledge or abilities

to measure based on the subjective judgment of the examinees who take it. The test, hence, will be able to measure what is claimed to measure.

A test is seen as being reliable when it can be used by different researchers under stable conditions, with consistent results and the results are not varying. Reliability reflects consistency and replicability over time. According to Brown (2003) the function of the test is to measure a person's ability, knowledge, and performance. In addition, reliability is seen as degree to which a test is free from measurement errors, since the more measurement errors occur the less reliable the test (Fraenkel & Wallen, 2003; McMillan & Schumacer, 2001, 2006; Neuman, 2003). In the same way, Meer and Fraser (2004) ask how far the same test would produce the same result if it was administered to the same students under the same conditions. This helps the researchers and teacher to make comparisons that are reliable. The more errors found in the assessment the greater the unreliability would be and visa versa. To check the reliability of the test, the teacher gave them the second chance to do the test and there consistency of the test results. Their results are almost similar to the first test that was done by them. Most of the students remember their answers and when they were asked to do the test again, the answer was just the way they did on the first test rather than reading through the question carefully.

The use of Kahoot application in formative test can be economic, effortless, and efficient. It was easy to design, easy to be administered because the result of the test can be downloaded directly after doing the test it is along with the score, point, and the result was easy to be interpreted. It is in line with Brown (2004), the test is considered practical if it meets financial limitations, appropriate time constrains, easy to administer, score, and interpret.

The applicability of Kahoot

Kahoot is a tool for using technology to administer quizzes, discussion or surveys (Play, 2014). According to Thomas (2014), Kahoot allows fast and easy access and is recommended for educators. He stated that creating activities

with Kahoot is beneficial because they can be used to review content of the lesson. The way the teacher implemented Kahoot in the English formative assessment by listing students' phones by asking them the brand of their phone to make sure that it can meet the requirement of Kahoot application. From the total number of 32 students of 8G, there was only one student who could not participate on this study because of the gadget. The teacher designed the students' formative assessment along with the guidance that could be understood easily by both teacher and students.

The effectiveness of Kahoot to assess students' formative test in English

Effectiveness is another consideration in analyzing test. Braskamp and Engberg (2014) states that an effective assessment should have these criteria; having a clear purpose and readiness for assessment, and involving stakeholders throughout the assessment process. Teachers have to know about what they are going to assess and the way they will assess.

Moreover, an effective assessment is an assessment which considers the effect of the assessment on students' learning behavior and outcome. It also provides feedback afterward (Swanson, p. 2002). The results from this study both accord with many of the previous studies in the field and stand in contrast with others. As will be explained, this effectiveness likely to explain why completion of the online formative test was found to be more effective in term of getting the direct result and feedback and the efficiency of time allotment.

The difference between Kahoot and traditional formative assessment is ease of grading. The students' online scores could be accessed online at any time. And since each student's quizzes were graded and their cumulative score tallied automatically, minimal administrative effort was required to transfer the learners' scores into the teacher's grade book. On the other hand, checking the paper-based homework was dependent upon the student coming to class and bringing their textbook. As this did not always happen, some time needed to be allowed for the submission of late work. Also,

time was needed for data entry and to transform the raw scores into a final percentage. Due to these differences, while the deadline for the formative assessment by using Kahoot could be set as the last week of class, the pencil and paper homework was due a few weeks earlier.

Moreover, it can be suggested that pedagogical tools like Kahoot has the potential to enhance and improve high-stakes examination scores at Junior High School 2 Temanggung. Students who used Kahoot in doing the assessment felt positive about their experience. The results of this study also suggested that creating a fun and engaging environment also supported to improve academic performance. Students will learn what excites them. If a student cares about what she or he is introduced to, she or he will be motivated to learn.

The implications for teacher, learners and school teaching curriculum with Kahoot

The impact of Kahoot use on students' English formative test, first it was easy to use and students' comfortableness of using Kahoot in a classroom context could be guaranteed. The competitive formative test could motivate other than frustrate their test. Kahoot was welcomed by the students, teacher, and school. The implementation of Kahoot in English formative test can also be implemented by other subjects.

The good impact for teacher, it can be efficient in the terms of time and need less time for doing the analysis. The teacher can maximize their time for making questions and providing teaching materials for the students. The result of the test can be used as their documents so that in another time they can improve well in using the application.

The implications of using Kahoot can be divided into three; For teacher that is the main object of the research, by the end of the research the researcher hope that the application can be used by students. It can help students to be more aware of using the application.

The teacher as the practitioner can use this application. The application will also be familiar for the teacher. This is in line with the government's plan to educate and facilitate the

teacher with the new platform of teaching and learning tools.

Hopefully by implementing this digital assessment tool, the school stake holder will facilitate students with good internet connection so that the teacher and students are able use digital assessment tool as a part of their assessment.

CONCLUSIONS

Based on the result of the study, there are five implications that can be drawn. The English test is designed based on the need of students and the availability of the gadget, the test should be valid, reliable, and can be used easily, the implementation should be done well, the application should be effective, and there must be further response from the teacher as a doer and the school stakeholder as the facilitator. Moreover, the results of English formative test after undergoing the tryout are regarded to be appropriate and feasible to be implemented in the English assessment in junior high school. The first implication to this fact is that the English assessment can also be used by the English teacher but also the other English teacher who substitute the English teacher.

The research findings showed that the students' perception on using Kahoot in English formative test have encouraged enjoyment and described students' achievement. It shows the students' ability in the English test. The second implication to this fact is that the teacher should use the English test aspects to assess all of subjects to encourage the children's enjoyment and give information on students' achievement.

The English teacher should be creative in conducting assessment. Using various types of assessment is helpful to describe the students' ability. Moreover, creating fun atmosphere during the test makes them relaxed during the test.

The researcher hopes that this designed English assessment can be used for other researcher as input for the same study. Besides, the digital tool of English assessment can be varied and developed to be more creative by using other appropriate tools.

Assessing young learners is different from assessing adult; therefore in designing a test the students of English department should consider the characteristics of young learners.

Other English teachers are expected to create various types of digital assessment in assessing their students. It is not only to measure the students' achievement but also makes them feel relax during the test.

The test developers are expected to create test which is not monotonous and stressful. Consider young learners have special characteristics different from adult, therefore the test developers need to create fun and varied test.

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