DIGITALIZED FORMATIVE ASSESSMENT AS A MEANS TO INCREASE STUDENTS ACTIVE PARTICIPATION IN LEARNING

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Abstract: This is a simple descriptive research which tries to made use of the technology available to help lecturer/teachers in implementing formative assessment in a more interactive way. The aim is to engage students more actively during the teaching and learning process. Furthermore, it is expected that this active participation could lead them to be responsible for their own learning and thus create lifelong learners. In this research, the students are exposed to digitalized form of formative assessment which is provided through online platform, compete with other students and see the result instantly. The gained data from this study was in the form of questionnaire responses by the students after several times conducting online formative assessment. The data presented quantitatively with qualitative description and explanation.

Keywords: *digitalized, assessment, participation*

INTRODUCTION

In this so called 4.0 era, technology in education is inevitable. Educators are highly expected to incorporate information and technology in every way possible. With the Z generations as our students, we need to remodel our ways of teaching to fit in the characteristics of Z generations. One distinctive characteristics of generation Z is their high attachment to their gadget. Whenever and wherever they go, their gadget, let us say their smart phone, should be close to them. Not to mention inside the classroom. To address this issue, a teacher should be able to modify the teaching and learning activity in such a way that it can incorporate the use of smartphone actively and positively.

As learning takes place, one thing that should not be forgotten is the assessment process. Assessment has the purpose of knowing the progress of the students in acquiring the learning materials. Assessment can be done either summatively or formatively. Summative assessment occurs usually at the end of the semester or a particular period of learning. On the other hand, formative assessment is usually given directly after a chunk of instruction. The feedback of formative assessment is often immediate and it aims on checking the students understanding of that particular material. Formative assessment also known as assessment for learning where the result of the assessment should correspond to an action taken based for future improvements (Bennet, 2011).

With the advancement of information and technology, now we can have an interactive formative assessment through online platforms. One online platform that is well known for its quiz design is Kahoot. Kahoot provides a free service for teachers, students and educators to design and publish assessment questions in form of interactive quiz. Through this, the students can use their mobile phone and doing an assessment at the same time. This is what this research about. The researcher interested in knowing the students responses on the use of Kahoot as a formative assessment media. Further this research wanted to know whether the students personally feel that they are more engaged during the learning process and that they become more actively participating in class interaction.

METHOD

This research made use of descriptive qualitative design which tries to elaborate the phenomenon of digitalized formative assessment seen from the students' responses. There were 60 students involved as a sample in this research. The researcher exposed the students to several formative assessments carried out through Kahoot online platform. The researcher then distributed questionnaire to quantify their responses. The aspects being asked in the questionnaire are related to their personal feeling in regard to the implementation of online formative assessment.

Participative observation was also done to note down the visible traits of active participation that include psychological aspects, emotional aspects, and behavioral aspects (Cornell et al., 1995). The researcher recorded any significant reaction shown by the students regarding to the implementation of digital formative assessment through Kahoot.

FINDINGS AND DISCUSSION

There were 12 questions for the respondents. They were expected to give responses either by choosing one the three options provided (agree, disagree, or undecided). The questionnaire was given after several implementation of Kahoot as a formative assessment after the lecturer finish giving the materials.

Of 60 respondents, all agree that the use of Kahoot as a media to help the formative assessment was great. Most of them argued that Kahoot quiz made them stay alert and not bored during the teaching and learning process. Other students stated that Kahoot quiz was so fun that they were addicted to it and expected to have it after each meeting. While 97% of students believed that Kahoot quiz help them to assess their mastery over the materials explained, another 3% chose "undecided".

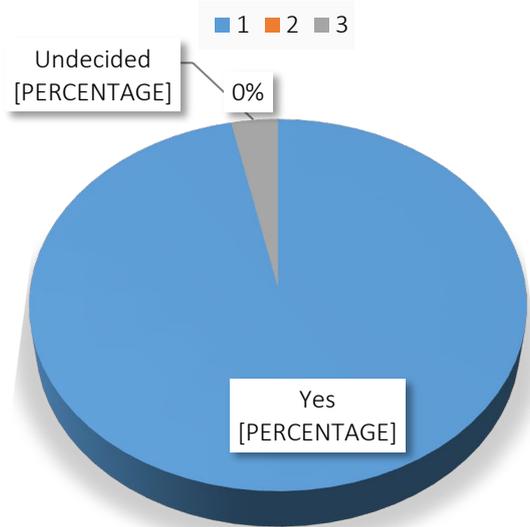### Kahoot quiz helps assessing material mastery

Chart 1 Kahoot and material mastery

Another aim of formative assessment is to improve the quality of the process of teaching and learning. Therefore, the next question being asked was about active participation in the

classroom. About 98% of students agreed that the use of Kahoot made them more interested in participating actively during the learning process.

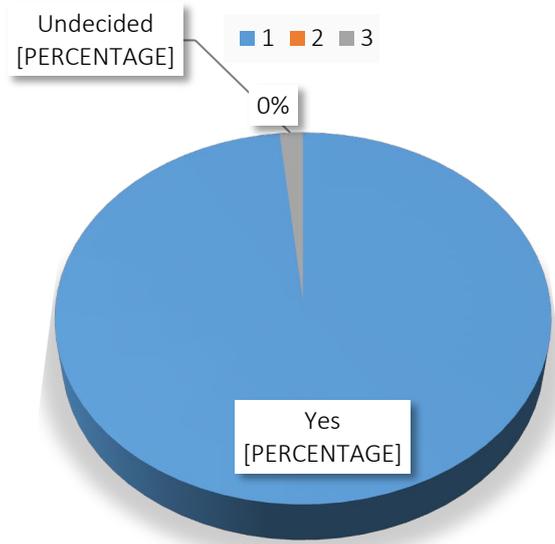## The use of Kahoot stimulates active class participation

Chart 2 Active Participation

Regarding to focus and attention span, 98% of the sample agreed that with the use of Kahoot as a formative assessment, they were more attentive to the lecture. Another 2% of the sample stayed undecided.

The implementation of Kahoot promotes focus and attention toward the lecture
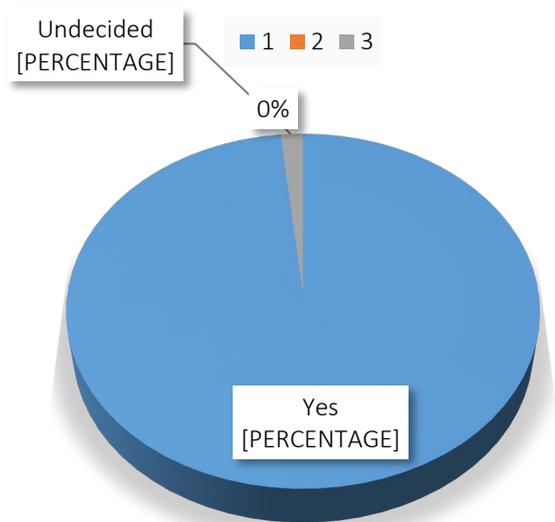

Chart 3 Focus to the lecture

Formative assessment works in two ways for both teacher and students. A good assessment should leave students feeling motivated and eager to improve themselves. From the responses

gathered through questionnaire, 97% respondents felt the challenge and would like to compete and understand the material better. This finding is in line with what Feber et al. (2016) found that digital formative assessment positively impacted motivation and achievement. In addition, when being asked about whether or not they wanted their name to be on the leader board of Kahoot, 97% said "yes". This indicated that the implementation of formative assessment through Kahoot gave positive wash back toward the students. They were more eager to compete and master the material. At the same time it motivated them to perform better. They wanted their name to be on the leader board of Kahoot.

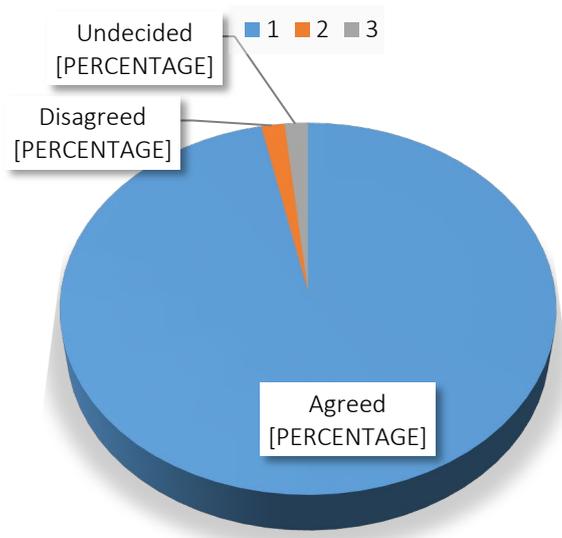## Kahoot challenged me to compete and master the material

Chart 4 Feel challenged to compete and master the material

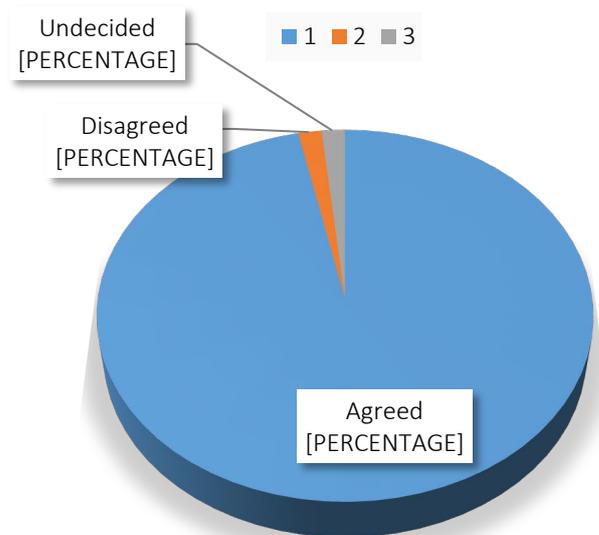## I want my name to be on the Kahoot leader board

Chart 5 Name on the leader board

Furthermore, the respondents were also asked about whether or not Kahoot helps them to clarify unclear materials. The answer showed that 90% agreed that the assessment process helped them to better understand the materials that were confusing to them. However, 3% of the respondents disagreed and 7% "undecided".

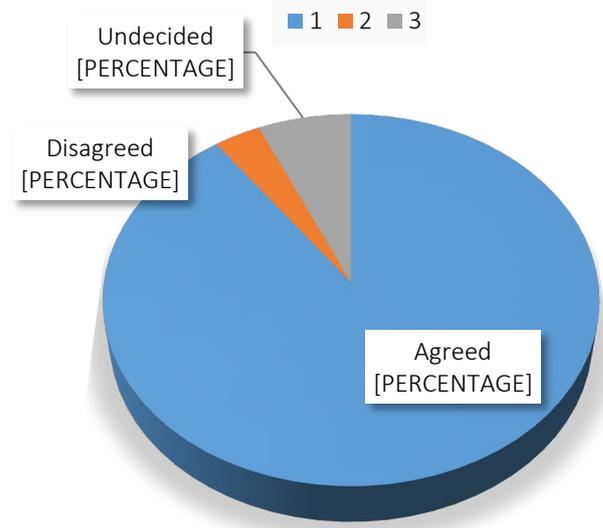## Kahoot helps clarify unclear materials

Chart 6 Clarification upon unclear materials

Another aspect being asked in the questionnaire was whether or not formative assessment through Kahoot could help students be more responsible to their own learning. The respondents' responses indicate that 85% of the respondents agreed that they become more responsible toward their own learning, while 3% disagreed and 12% stayed undecided.

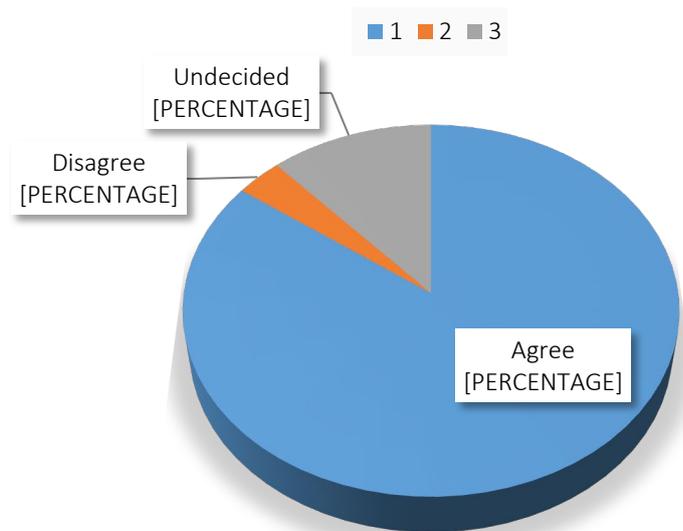## Responsible toward your own learning

Chart 7 Learning Responsibilities

At the end of the questionnaire, the respondents were asked whether formative assessment through Kahoot should be continued or not. All of them agreed that it should be carried on practically in every meeting. They were also asked to give suggestion about the improvement of formative assessment through Kahoot. Some of them asked for more questions in one play. Another suggested displaying all the rank in one play, because they wanted to see their position compared to other students.

The result presented above is in line with the observation result. During the implementation of formative assessment, the students were fully engaged. They were a bit disappointed when they answered incorrectly and were so happy when they answered correctly. Sometimes they asked for replay because they wanted to perform better than before. After every tough question, where many students gave wrong answers, the lecturer explained the materials again or clarifies the things that the students did not understand.

Students' active participation was seen from their engagement aspects namely behavioral, emotional, and psychological. Behavioral aspect covers persistent learning, effort and focus. Meanwhile, emotional aspect includes interest and excitement. The psychological aspect comprises preference for challenges, independence and task involvement.

BEHAVIORAL ASPECTS

Through the use of Kahoot as a formative assessment, students were observed to be more focus in listening to the lecturer's explanation. They sometimes asked for more questions. It seemed that they could not get enough of it. They wanted to perform their best during the quiz. The result of the questionnaire also resembles their interaction in the assessment process. They would give their best effort so that they could see their name on the Kahoot leader board. They wanted to see their position on the leader board which represented their rank relative to the other class members.

Emotional aspects

The emotional aspects were visible through their reactions during the formative assessment. They laughed, exclaimed, and even screamed whenever they get their answer right or wrong. They even asked for a replay because they really enjoyed the quiz and excited about it.

Psychological aspects

Regarding to the task involvement, the class participation was around 83% and above. Most of the students who could not manage to join the quiz were mainly due to the internet connection. Apart from that reason, they were enthusiastically joined the quiz. Some students preferred to do the quiz individually while some others preferred to have it in groups.

Nevertheless, there are several drawbacks from this type of formative assessment. First of all, since the assessment process relies heavily on internet connection, then those students who have poor connection could not join the quiz. There was also a time where the admin lost the internet connection and that the quiz should be repeated from the first question. Another challenge was in terms of standings display. Kahoot only displays the five highest ranks while the rest of it remains unknown. The students really wanted to see the overall standings so they can see where they were at. Lastly, it was about the design of the quiz. Kahoot displays the questions and answers on the screen and the students have to choose the answer from their phone. Some students who sat at the back struggle to see the questions and answers on the screen. Some of them had to move to the front row to get clearer look on the questions and answers.

CONCLUSIONS

The main aim of this research was to describe the students' responses toward digitalized formative assessment through Kahoot. From the result of the questionnaire it can be concluded that the majority of the students enjoyed the implementation of digital formative assessment. They became more focus, and more responsible toward their own learning. Their active participation was also positively shown through their behavior, emotion and psychology. Though there were several drawbacks, it did not outweigh their benefits. The researchers would recommend teachers and educators to use digital formative assessment such as Kahoot. There are many other digital platforms that provide similar functions as Kahoot, namely Quizziz, Wooclap, Socrative and many more. This form of formative assessment made use of smartphone in a positive and engaging ways. Through this platform it is hoped that students can integrate assessment as a learning tool and further create them to be a lifelong learners.

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