THE EFFFECTIVENESS OF KAHOOT APPLICATION TOWARDS STUDENTS' GOOD FEEDBACK PRACTICE

Nurul Nisa Omar
KDU University College, Selangor, Malaysia
neesa.jn@gmail.com

Abstract

Many educators started to utilize technology application activities in the classroom as an attempt to attract students' attention and motivate their classroom participation. Kahoot is an example of a technology assessment tool that includes students' participation in answering MCQ-type of questions in a more competitive environment. However, there are concerns about the ability of Kahoot application in gauging students' feedback practice. As Kahoot is known to be an interactive approach in conducting quizzes or tests, it is a wonder if it can also be a good platform for giving feedback. In this study, the author will discuss the effectiveness of Kahoot application as an assessment tool in classroom activities following the guideline of seven principles of good feedback practice. A qualitative approach utilizing data from three focus group discussions was done in a group interview setting with a case study on 15 students undergoing Diploma in Communication and Media Programme. The findings present students' perspective on the effectiveness of Kahoot assessment towards their good feedback practice. By assessing the application, it contributes towards understanding the strength and weaknesses on the usage of technology assessment in classroom activities.

Keywords

Good Feedback Practice, Kahoot Assessment, Technology Application

1. Introduction

It is undeniable that the use of technology assessment method in classroom settings has many advantages as a teaching and learning tool (Poly & Obispo, 2007). It is almost impossible for educators to run a classroom without using some form of technology application in order to engage learners with the class activities. Most educators design their learning lesson with the help of technology in creating an engaging learning atmosphere (Medvedovska, Skarlupina & Turchina, 2016). Brand (1997) states that educators are highly encouraged to not only use technology appropriately but also effective in managing the classroom lesson. However, Bitner and Bitner (2002) states an issue where the use of technology assessment in the classroom do present its own difficulties and concerns. The very example of the gap would be questioning the effectiveness of technology application on students' feedback practices (Helvoort, 2010).

Many higher education institutions have begun to invest in adapting technology application such as Kahoot as a classroom activities as an effort in having a relevant teaching approach following the current technology era (Pugh, Sheldon & Byers, 2002). Therefore, it is important to assess the ability of this application to improve students' learning activities such as having a good feedback practice. This research will investigate the effectiveness of Kahoot application as an assessment tool in classroom activities. The underlying factor is to assess whether Kahoot application utilizes the seven principles of good feedback practice. Thus, this study will answer the following research questions:

- How do learners' response towards their feedback practice from using Kahoot assessment application?
- Which of the seven good feedback practice correlate to learners' experiences from using Kahoot assessment application?

2. Literature Review

The concept of technology application in classroom assessment is where students are able to participate, answer questions and receive instructions without having the educator facilitate the session (Cuban, n.d. & Greenhalgh, 2001). This occurs so with the expectation for the learners' experiences to be more dynamic, open-ended and multidimensional. It is known that

the use of technology application in classroom assessment most often is able to imitate the traditional assessment (Moersch, 1998). Which is why using technology application in classroom assessment is slowly turning into a common practice in higher education in-class activities (Saade, 2003). To assess students' ability to improve their feedback learning, Nicol and Milligan (2006) discusses the seven principles of good feedback practices. This approach deemed to be a suitable guideline in assessing the good feedback practice of technology application such as Kahoot application. The identified seven principles as follow:

1. Helps clarify what good performance is (goals, criteria, expected standards)
2. Facilitates the development of reflection and self-assessment in learning
3. Delivers high-quality information to students about their learning
4. Encourages teacher and peer dialogue around learning
5. Encourages positive motivational beliefs and self-esteem
6. Provides opportunities to close the gap between current and desired performance
7. Provides information to teachers that can be used to help shape the teaching

These seven principles are very much related to technology-supported assessment that runs online or through online-offline interaction (Nicol & Milligan, 2006). For an educator to be adapted with new technology approaches as a way to run their classroom, it will require acceptance of the approach into the education system. Strommen (1992) mentioned that other than educators, the changes are also for administrators, experts, and many others. As a good start, educators started to be introduced to simple online classroom activities such as the educational technology application called Kahoot. This application provides a platform for educators to create a more engaging way to assess learners' knowledge on any given subject. The interactivity features enhance learners' engagement while sitting for typical in-class activities such as quiz, discussion, and survey. The usage of Kahoot in classroom activities is able to create extra excitement to boost up learners' attitude and participation in class. However, there is no guarantee that the usage of Kahoot application in class activities is able to encourage learners' good feedback practice.

3. Methodology

This research utilizes qualitative focus group discussion method on selected students in a group interview setting. The source of the data collection is from a case study on 15 students

(P01 to P15) from Media and Communication Diploma Programme participated in the discussion covering topics on the feedback practice of Kahoot assessment. The discussion was done in three sessions; with 5 participants per session. The participants first took part in Kahoot assessment activities by sitting for online quiz on a Media Planning and Buying subject. After sitting for the online quiz, they will proceed with the group discussion. The content of the discussion was guided following the seven identified principles of good feedback practice by Nicol and Milligan (2006). From the retrieved content of the focus group discussion, the data treatment covers the analysis of quotes, reasoning, categorization of the subject, and the frequency count for each subject category. The frequency count was divided into 4 parts; general, typical, variant and rare. A subject was identified as general, when its frequency count is more than 12 (also means more than 12 reasons were gathered), typical when the frequency counts is from 8 to 11, variant when the frequency count is from 4 to 7 and rare is when the frequency is less than 3. From the frequency count, the author manages to assess the frequent type of feedback practice based on participants' experiences in Kahoot assessment.

4. Findings and Discussions

Following the data collection process, the findings were organized following seven themes where each theme represents each principle in good feedback practice. The following information in Table 1 discusses the first theme; Kahoot assessment ability to assist in clarifying what a good performance is.

The table illustrates two categories which directed mostly towards negative perceptions from the participants. Additionally, the frequency count was rather low for both categories and there is no positive response that was gathered in this theme. The first category stated that Kahoot assessment approach of ranking participants' achievement is not a suitable platform to showcase students' performance quality.

Table 1: *Theme 1 - Ability to assist in clarifying what a good performance is*

Category	Example of reasons / Quotes	Count
Ranking is not suitable to showcase good performance	"Just because some does well in the quiz, does not mean they have more knowledge" – P05 "I feel like Kahoot is just for fun, not to see who have good performance" – P09 "The ranking will tell who can answer faster and accurate, but in truth answering faster is not important for food performance" – P02 "Although some did well in the Kahoot ranking, does not mean they will do well in final exam" – P03	Variant
No guideline of knowing what is good performance	"This test is good fun, but I do not know what can be considered as a good performance – not much test on my critical thinking" – P06 "Sometimes players just simply choose an answer quickly to get good ranking but there is no guideline that says answer quickly means perform better" – P07	Rare

A subject was identified as **general,** when its frequency count was n=>12; **typical** when its frequency count was n=8-11; **variant** when its frequency count was n=4-7; and **rare** when the frequency count was n=0-3. Note that the full lists of reasons / quotes were not presented as what were presented were only a few examples.

As shows in Table 1, participants describe that players who achieve higher ranking results from the test are not based on their in-depth knowledge of the topic. This relates to the second category where there is no explicit guideline of knowing what can be considered a good performance from Kahoot assessment. Participants discuss that the usage of ranking to measure good performance is very vague where it does not necessarily test participants' critical thinking skills; which is an important factor in showcasing good knowledge on a subject. Therefore, Kahoot assessment method did not fulfill the first principle of good feedback practice.

Table 2 showcases participants' discussion on the second theme; ability to facilitate self-assessment in learning. There are two categories that were generated with the frequency count results to a high number of positive responses from the participants.

Table 2: *Theme 2 - Ability to facilitate self-assessment in learning*

Category	Example of reasons / Quotes	Count
Encourage players to compare performance with others	"I like to assess my own performance against others after I have completed the test" – P08 "I get to know how well I did in the class among other classmates" – P13 "This test is good fun, but I do not know what can be considered as a good performance – not much test on my critical thinking" – P01 "What I like about it is the fact that I will want to do better than my other friends – I will not be happy if I did not get higher ranking" – P10	General
Encourage self-reflection on current performance	"I feel motivated to reflect on my results – so I will know what point should I beat next time" – P01 "I tend to care more about how I perform in the test" – P04 "It will be embarrassing if you are not part of the top ranking scorer that is why I must look back at my performance in the test" – P05	Typical

A subject was identified as **general,** when its frequency count was n=>12; **typical** when its frequency count was n=8-11; **variant** when its frequency count was n=4-7; and **rare** when the frequency count was n=0-3. Note that the full list of reasons / quotes was not presented as what were presented were only a few examples.

As presented in Table 2, the first category is about the ability to encourage players to compare performance with others. There are more than 12 reasons that have been mentioned for this category. Participants mainly discuss how Kahoot assessment manage to trigger their competitive spirit in which it makes them become more aware of how others are performing. Thus, it encourages them to want to perform better than their peers. Complemented with the second category, the assessment also encourages their self-reflection on their current performance. They are more motivated in checking out how well did they perform in the test. Thus, this shows that Kahoot assessment fulfills the second principle of good feedback practice.

Table 3: *Theme 3 - Ability to deliver high-quality information to students about their learning*

Category	Example of reasons / Quotes	Count
No new information that was gathered	"This test is like a revision test. So I did not learn anything new" – P15 "The information that I learn is to test our past lesson only. Not to teach us anything else" – P02 "I don't gather any high-quality information just by sitting that test. Only it reminds me on what he has learned before." – P14	Variant

A subject was identified as **general,** when its frequency count was n=>12; **typical** when its frequency count was n=8-11; **variant** when its frequency count was n=4-7; and **rare** when the frequency count was n=0-3. Note that the full list of reasons / quotes was not presented as what were presented were only a few examples.

Table 3 discusses the third theme; ability to deliver high-quality information to students about their learning. This theme generated one category for which participants perceive that they do not gather any new information from Kahoot assessment. From the feedback, most of the participants see the assessment as a revision test where it only assessed past knowledge and there is no high-quality information that was gathered after the test. Additionally, one participant mentioned that the information that they gained after sitting for the test is merely based on what they have learned during previous lectures without any extension of new knowledge. Therefore, Kahoot assessment did not fulfill the third principle of good feedback practice.

Table 4 showcases the discussion on the fourth theme; ability to encourage teacher and peer dialogue around learning. There were two generated categories that mainly discusses on how Kahoot assessment are not able to fulfill the third principle of good feedback learning. The first category states that the test was done in a fast pace where the answers were only shown for a mere few seconds, therefore, it leads to the second category where there was not enough time to have a discussion about the answers. Participants also believe that they are more excited to play the game and proceed to the next question rather than to discuss the previous answers.

Table 4: *Theme 4 - Ability to encourage teacher and peer dialogue around learning*

Category	Example of reasons / Quotes	Count
Test was done at a fast pace, correct answers were shown only briefly	"Once the correct answer was shown, straight away start with the next question. No time to learn with lecturer" – P03 "They game were too quick, no time to really reflect on the answers but maybe that's why it is not boring" – P07	Variant
No encouragement to have discussion about the answers	"There is no time to have discussion about the correct answer " – P15 "I don't want to discuss because I want to continue play" – P09 "Even when the lecturer explain the answer, I was just waiting for the next question" – P11	Rare

A subject was identified as **general,** when its frequency count was n=>12; **typical** when its frequency count was n=8-11; **variant** when its frequency count was n=4-7; and **rare** when the frequency count was n=0-3. Note that the full list of reasons / quotes were not presented as what was presented were only a few examples.

Table 5: *Theme 5 - Ability to encourage positive motivational beliefs and self-esteem*

Category	Example of reasons / Quotes	Count
Test manage to boosts self-esteem	"I feel my self-esteem improve when I know I beat my friends' high scores" – P08 "As I don't have to use my real name, makes me feel more confident to answer" – P04 "I actually believe I can be smarter than my friends as I did very well in the test" – P03	General
Participants are very motivated to participate	"I am more excited to sit for the assessment in the upcoming class " – P05 "I cannot wait to see if I can do better than the last time for the next Kahoot game" – P12 "I am feeling so motivated to go back and study so I can do better next round" – P06	Typical

A subject was identified as **general,** when its frequency count was n=>12; **typical** when its frequency count was n=8-11; **variant** when its frequency count was n=4-7; and **rare** when the frequency count was n=0-3. Note that the full list of reasons / quotes was not presented as what were presented were only a few examples.

Table 5 presents the discussion on the fifth theme; ability to encourage motivational beliefs and self-esteem. There were two categories with high-frequency count generated from

this theme and it mainly presents positive feedback from the participants. The first category describes that Kahoot assessment manages to boost participants' self-esteem. It seems that players welcome the competitive spirit of the game and they strive to perform better than other players. The second category states that participants seem to be very motivated to participate in the next Kahoot assessment game. They discuss that they look forward to beating their past performances and will attempt to revise class lesson only to prepare for the next assessment. Thus, Kahoot assessment manages to fulfill the fifth principle of good feedback practice.

Table 6: *Theme 6 - Ability to provide opportunities to close the gap between current and desired performance*

Category	Example of reasons / Quotes	Count
Assist in achieving the desired ranking	"As I want to be one of the higher scores, I tend to focus more on pop quiz to achieve that" – P01 "I will know that I achieve that I want to achieve if I am in the top 3 ranking on the scoreboard" – P14	Typical
Assist how to set goal for the next test	"After knowing where my ranking is from the previous test, I know how to set for which ranking I want to be in the next test" – P08 "From the question set, I will know which topic to focus on so my goal is to improve the part where I am weak at" – P09	Typical

A subject was identified as **general,** when its frequency count was n=>12; **typical** when its frequency count was n=8-11; **variant** when its frequency count was n=4-7; and **rare** when the frequency count was n=0-3. Note that the full list of reasons / quotes were not presented as what was presented were only a few examples.

Table 6 showcase feedback on the discussion for the sixth theme; ability to provide opportunities to close the gap between current and desired performance. Both categories that were generated for this theme are on the higher number of frequency count and it presents positive responses from the participants. The first category discusses how Kahoot assessment is able to assist participants in achieving the desired ranking where players are more focus on improving the current performance. In relation to the second category, Kahoot assessment also able to assist players to set a goal for the next test. Thus, Kahoot assessment manages to fulfill the fifth principle of good feedback practice.

Table 7: *Theme 7 - Ability to provide information to teachers that can be used to help shape the teaching*

Category	Example of reasons / Quotes	Count
Improve lecturer's skills	"I am always in awe is lecturer can use technology in class"-P02 "I look up more to lecturers who can teach with more interactivity and use more technology application" – P15	General
Good practice in class	"If lecturer always use this, students will pay more attention to the next topic" – P07 "This kind of assessment make us enjoy test a little bit more than the normal type of test" – P12	Typical

A subject was identified as **general,** when its frequency count was n=>12; **typical** when its frequency count was n=8-11; **variant** when its frequency count was n=4-7; and **rare** when the frequency count was n=0-3. Note that the full lists of reasons / quotes were not presented as what were presented were only a few examples.

Table 7 showcases feedback on the discussion for the seventh theme; ability to provide information to teachers that can be used to help shape the teaching. The generated category for this theme leans towards positive responses from the participants. The first category discusses that the usage of Kahoot assessment improves lecturer's teaching skills and that learners are very much impressed with educators that are able to use technology as part of the class action. In parallel to that, the second category reflects that Kahoot assessment can present a good practice in class. With this kind of challenges, players look forward to participating in the upcoming Kahoot test. Thus, it shows that Kahoot assessment fulfills the seventh principle of good feedback practice.

Overall, respondents' feedback is mainly positive towards the feedback practice from using Kahoot assessment in classroom settings. The results clearly stated how the interactivity of Kahoot assessment makes tests and quizzes to be more engaging and interesting. This encourages learners' participation as similar to what Brand (1997) states, learners most often are able to give extra attention when technology is used in a classroom. Additionally, Freeman (2015) says technology assessment in classroom provide effective student engagement and better reflective experiences. Besides which, participants state that Kahoot assessment manages to encourage their positive attitude in sitting for the test. In similarity, Cuban (n.d.) mention how students usually generate positive reaction when proper use of technology is being utilized in classroom activities. Students' enthusiasm contribute to their motivation where the application

actually manage to increase their confidence level (Susilowati, 2017). Nevertheless, participants did mention several flaws of Kahoot assessment such as students' inability to discuss answers with educators and also the objective of the test seems vague as it only depending on learners' ability to achieve a higher ranking. Hence, this strengthens the statement made by Bitner and Birner (2002) where technology application is not able to provide learners with the overall experience of good feedback practice.

5. Summary and Conclusions

This research conveys deeper understanding towards the effectiveness of using Kahoot application in classroom assessment following the assessment of seven principles of good feedback practice. The underlying factor is to analyze which of the seven principles can be fulfilled with Kahoot application. Experiencing all seven principles of good feedback practice can contribute to learners' higher learning quality (Nicol & Milligan, 2006). From the results of the focus group discussion, Kahoot application is only able to fulfill four of the seven principles of good feedback practice. In parallel, Strommen (1992) states that technology assessment is difficult to merge the seriousness of a test within the fun engaging interactive test. The limitation of this study is having to only investigate one specific programme, Diploma in Media and Communication. Therefore, further studies should be done for other area of disciplines.

For future implication, the enhancement of technology-based assessment such as Kahoot application can be improved by focusing on students' dialogue with lecturers, clearer objectives, and quality of information delivered in the test.

6. Acknowledgement

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