



EXIT TICKET IMPLEMENTATION THROUGH KAHOOT!, THE CLASSROOM GAME-BASED TECHNOLOGY

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ABSTRACT

Exit Ticket is an effective technique to assess students' understanding and existing knowledge. In math class, exit tickets are frequently used as solutions to problems that exemplify the day's learning objectives. With the aid of technology, Kahoot! is the game-based platform allowing teachers to create quizzes and surveys with data organization to ease performance tracking, level of understanding and time spent for each question. This resulting dataset is useful for teachers to adjust their own teaching or to pinpoint areas of misconception. This study has focused on how to use the application to create quizzes as exit ticket questions and the analysis of the dataset provided by Kahoot! system. It shows results of student comprehension that benefits lesson planning.

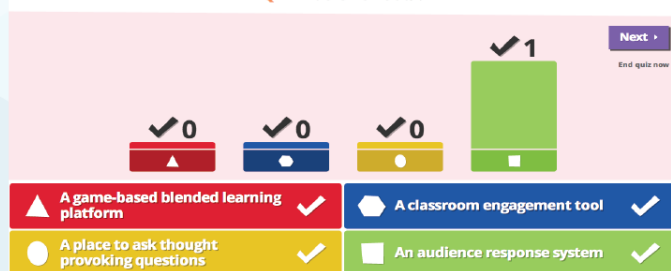
BACKGROUND

Kahoot! <https://kahoot.it/> is a real time game-based platform where quizzes, discussions and surveys can be created with any devices and a web browser. It can transform ordinary classroom into a game show. It was designed as a cloud-based service providing HTML5 web-interfaces, making it easier to integrate with social media, and to maintenance and upgrade with support for most digital devices.

In this study, Kahoot! was designed to be a multiplayer game where students compete for being at the top of the scoreboard. After the first trial of Kahoot! as ticket questions, we knew that it engaged and motivated the students and implemented it to check student's understanding of the class materials, their prior knowledge for the next class and raise the classroom energy and engagement.



Q1 What is Kahoot! ?



DESIGN & METHODS

Using Kahoot! as a formative assessment tool with objectives:

- to check student's understanding of today's lesson (50% of exit questions)
- to check student's prior knowledge for the next lesson (30% of exit questions)
- to improve classroom engagement and student's attention (20% of exit questions)

References

Wang, A. I., et al. (2008). An Evaluation of a Mobile Game Concept for Lectures. Proceedings of the 2008 21st Conference on Software Engineering Education and Training -Volume 00, IEEE Computer Society.

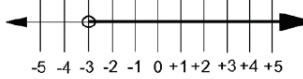
1. Plan the Lesson

2. Choose formative assessment tools and the exit questions

3. Receive immediate results and respond to the class

4. Study the collective today class result and plan the next lesson

Inequality Grade 9

- Interpret the graph 
- Find the answer of $-3 < n \leq 2$
- Some months have 30 days; some have 31 days. How many month having 28th day?

RESULTS & ANALYSIS

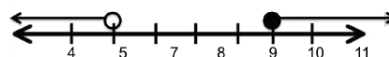
- Q3 Which expression is not a linear inequality with one variable?
 1. $7x - 14 \geq 18$
 2. $4y \neq 11 - y$
 3. $5x < 4x + 14$
 4. $2x^2 + 25 \leq 50$

Q3	ประโยคใดที่ไม่เป็นอสมการเชิงเส้นตัวแปรเดียว	Q4	ข้อใดเป็นประโยคอสมการเชิงเส้นตัวแปรเดียว
1074	$2x^2 + 25 \leq 50$	880	$3a + a > 2a + 10$
1083	$2x^2 + 25 \leq 50$	0	$3a + 245 = a$
0	$5x < 4x + 14$	0	$3a + 245 = a$
0	$5x < 4x + 14$	606	$3a + a > 2a + 10$
0	$7x - 14 \geq 18$	682	$3a + a > 2a + 10$
984	$2x^2 + 25 \leq 50$	0	$3a + 245 = a$

- Q4 Which expression is a linear inequality with one variable?
 1. $3a + a > 2a + 10$
 2. $3a + 245 = a$
 3. $3n + 112 < 6n^2$
 4. $6x^3 + 3x^2 \leq 114$

Kahoot! was applied to the class of 25 students arranged into group of 4-5 students. The grouping was done according to students' previous test results. Each group shared one smartphone to eliminate or avoid the problem of traffic network problem. Almost all students (>90%) paid attention to the game.

The results of Q3 and Q4, the questions to assess the comprehension of today class, showed that half of the class got wrong answers. This reflected the class material about the meaning of linear inequality might be unclear. Consequently, the analysis was very helpful in designing next class to begin with the revisit of the meaning of inequality.



As for prior knowledge of the next class that was about the meaning of verbal expression and graphical expression, the Kahoot!'s result show that students (50%) were not so sure about the association of 'less than', 'not over', 'at least' and the inequality signs.

CONCLUSION

Kahoot! was used a tool for low-risk formative assessment. Students felt comfortable to take educated guess without negative judgement. 80% of questions covered today class's material and some next class's material. Students got feedback from teacher's explanation right away. However, wear-out of the game can be studied further.