

# Impact Of Kahoot! On Students' Engagement And Learning Outcome At The Elementary Level In Pakistan: Their Perception Towards Kahoot! Assessment

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## Abstract

The judgmental style in the subject of Mathematics particularly, will be affected if students' perception about feedback processes are negative and will be worst if this affects the students' performance. Thus, there is a dire need to apply effective judgmental style and employ innovation as it can enhance focus of students and time on task at the elementary level besides formative assessment review and to make adequate progress. The study included pre-experimental design 'the static group comparison' to investigate the effect of the assessment tool on Mathematics in private schools in Pakistan and around forty elementary students in Lahore, Pakistan was involved in this study. It showed a positive effect on learning acquisition in Mathematics and improved engagement as the impact of the tool on learning was positive. This mixed method research used purposive sampling to obtain the information through perception of students and they were assigned to provide information to complete self-reported and Open-ended questionnaire in the form of semi-structured interview on enhancing their overall learning experience and to empower engagement towards kahoot as an assessment tool. The data gathered by students' perception under the exploration category. The analysis of the data revealed that students find the application useful by enhancing engagement and reducing time on task.

**Key Words:** Kahoot, Mathematics, Pakistan, Pre-experimental Design, Students' Perception

## Introduction

Mathematics is one of the subjects where students' interest and involvement are profoundly less due to its complexity as it takes a lot of practice than others. The status of the mathematics education in Pakistan is facing challenges since its use in the country is poor (Iqbal, Shawana, & Saeed as cited in Khalil, Farooq, Çakıroğlu, Khalil, Khan, 2018, p. 1). In

Pakistan, students face difficulty in understanding most of the concepts. One of the main aims of education system is to increase or enhance the involvement, motivation and active participation to achieve learning outcome and to pose many challenges. Using technology can be a great way of increasing motivation, engagement and interests for students in today's classroom (Johns, 2015). Since, Information and Communication Technologies (ICTs) assist

students to monitor their own progress in studies (Johns, 2015).

This study will also be helpful for Mathematics teachers as it reduces their workload. Assessing students' performance with the use of technology may be beneficial to teachers, institutions and themselves in creating an effective learning environment (Pokhrel, & Chhetri, 2021), as it provides immediate without unnecessary delay and so, makes students' learning meaningful. Human decisions might be highly subjective as teachers are not likely to oversee each student's academic performance closely. Assessment through digital media is considered a mixture of methodologies in order to motivate students. Many sources of innovation that are more active, innovative and can create dynamic in classrooms. Kahoot! is a free assessment tool that has increased its popularity (Martínez-Jiménez, Pedrosa-Ortega, Licerán-Gutiérrez, Ruiz-Jiménez, García-Martí., 2021) as, it is a force that stimulates progress, involvement and interest among students. The tool enabled us to assess students' understanding formatively in greater achievement and cause of permanence of knowledge. Educators can use kahoot as convenient feedback in teaching and learning to measure the short-term learning acquisition of students and their satisfaction using kahoot. At the higher level, the use of kahoot affects the students' attitude for learning and assessment (Martínez-Jiménez, Et. al., 2021). The tool has helped students to be creative and has shown authentic assessment where they are more motivated, engaged and take interest. Due to the rampant use of ICT tools and techniques in teaching learning and assessment, kahoot is considerably a powerful tool in achieving the students' progress as well as in engaging them in learning. Using kahoot test to change the classroom into fun environment to stimulate engagement and positive feedback of learners (Martínez-Jiménez, Et. al., 2021). Learning and

assessment through games or quiz are not directly linked with the knowledge and ability at any level rather it affects students' behavior. Hence, the adoption of ICT tools and techniques is making considerable and vital difference in instructions and has become a supporting tool in education particularly. According to Pokhrel, Et. al. (2021), students are advanced in using technology, thus, it can be expected to integrate more technological tools to suit their learning style and preferences. Williams & Chin, (cited in Yunus, Hashim, Hashim, Yahya, Sabri, Nazeri, 2019) pointed out that there are many alternative options for evaluation that have received considerable attention to traditional assessment approaches.

Kahoot is one of the popular and acceptable student response tool to gain student interest and feedback (Concilio, & Braga, 2019). It is free tool for organizing quizzes, and facilitating survey. The current study is related to mathematics education and the study may be helpful in introducing kahoot-aided instructions for the assessment of mathematics at the elementary level in the education system of Pakistan. The present study was to investigate the influential effect of the use of kahoot assessment, with the main objective being to analyze the relationship between the use of this tool and students' learning outcome, which was measured through scores in their examination in the scope of elementary education with a particular emphasis on grade 8. The intent of the study was to discover the influential effect of kahoot assessment methods of comparing their learning outcomes from time to time by taking the pre-test and post-test of experimental groups in the subject of Mathematics. Pre-test was the previous scores taken on paper-pencil containing 50-items based on Math MCQs of students. In the next stage, the perception from the students was collected by completing a semi-structured interview and was administered with the objective of knowing their satisfaction on using kahoot to improve the

assessment process at the elementary level and to determine their academic performance. In the last stage, analysis and discussion of the experiment and survey of students' perception were done; for the formative feedback to know whether the use of the tool allows students more engagement reflected in better academic results in Mathematics. Challenges of using this smart technique for quality assessment at elementary level have also been provided.

### **Problem Statement of the Study & its Significance**

Use of digital technology for the purpose of evaluation within the classroom setting has been increasing over the last few years to improve learning achievement. Technology-based assessment techniques may capture the interest of students and provide contexts in which students can learn more proficiently. Finding a connection between its use and students' academic progress may have positive implications on teaching-learning (Pokhrel, Et. al., 2021). Through this study, researcher will investigate the effectiveness of the online game Kahoot as a tool for increasing learning acquisition for students as well as the study will investigate the perception of students if they are satisfied with the use of Kahoot with regard to their focus and time on task. The findings of the study may give ideas for students, teachers, school administration and next researchers to integrate technologies in classrooms as this era is a digital era where students are advanced in using and adapted to the digital technology to enhance their learning, interest and motivation. In Pakistan, student has the privilege to use smart tools in our laboratories of the school to make learning easier (Ali, Ahmad, & Sewani, 2022) and this tool has been in spotlight as it engages and motivates students in classroom for learning and most important it relaxes students.

### **Hypothesis:**

There is a positive relationship between the kahoot assessment and the results obtained on the conventional way of assessment in which it is not used.

### **Objectives:**

To identify differences in the mean scores utilizing kahoot and traditional way of assessment on student's engagement and conceptual knowledge.

To identify the effect of kahoot application on student's engagement and learning outcome in mathematics.

To explore their perception for satisfaction with the use of kahoot to increase their attention and time.

### **Research Questions:**

- How does kahoot effect in the classroom environment, students' engagement and learning outcome?
- Does kahoot assessment increase attention and focus of students satisfactorily?
- What are the challenges of using the kahoot at the elementary level for students?

### **Perception Terminology**

Perception is the process of interpreting things that happens in the environment and to get meaning and understanding of the things around (McClelland, Norris, Dominey-Howes, Govendir, 2021). In this study research aimed to find out opinions of students towards their learning experience of formative assessments through kahoot.

### **Kahoot!**

Kahoot application is played on computers, tablets, smart phones supported with network

connectivity. This media is available free, however, for its Plus & Pro versions required payment with monthly fee (Kahoot!, 2022). Though, its not an expensive technology. With this, teacher create and share quizzes, discussions with students (Kahoot!, 2022). It provides productive assessments and reflection through quizzes and surveys. Predesigned quiz can be accessed to build their knowledge in real-time. Unlimited number of students can participate that will assist in measuring comprehension about the topic (Kahoot!, 2022). It is a great help for teachers in monitoring and judging scores of students as it is an easy platform for assessing and boost them in their learning. Teacher is the game-host while students are the players on [www.kahootit](http://www.kahootit) to enter with a link or a PIN shared by teachers. To add more, it is becoming a popular tool to assess students' learning among other smart tools at all levels.

## Literature Review

Researches exist on the lack of engagement in feedback processes can lead towards reduction in learning outcome and those who are involved in the feedback learn more (Toma, Diaconu, & Popescu, 2021). The smart tool, kahoot, is a free platform for interactive assessment, based on play-games involving students by making it easily accessible for them. It transforms students' behavior and classroom dynamics and then perception at the elementary level were articulated to evaluate them.

Mathematics is one subject that focused on conceptual based skills, which is essential teaching learning process. Traditional methods of approaches have made the classroom environment bored (Kassem, 2019) and do not create positive involvement in classroom. Integration of ICT tools and techniques in the education system resulted and contributed to promote positive engagement, learning and solving problems. According to another study

conducted by Chiang (2020), kahoot as a gamification tool to use in the classroom is on the top 100 new application. Thus, its usefulness triggered positive engagement to learn quickly. To add more, learning through kahoot is an alternative option that can involve students in the teaching learning process. Hence, students learn something from this smart tool from quizzes, discussions and to collect feedback in real-time. The tool put all the students on a level-playing field to let them show what they know and teachers get the instant feedback from them to communicate visually with new item type. A similar type of study reported by Martín-Sómer, Moreira, Cintia, (2021), concluded that higher participation stimulates and directly implies enhancement in the test scores of students and 94% of them suggested and strongly recommended the use of the game-tool.

According to Berk, (2018), play-based learning is essential to foster and sustain engagement for meaningful teaching, learning and assessment for long-term retention. Thus, learners need to be engaged with the context of learning math problem in a technologically mediated environment to develop their math conceptual knowledge and skills. The study of Martínez-Jiménez, Et. al., (2021), implemented assessment through in classroom at the higher level and showed positive relationship between the use of kahoot and student's performance. Researchers further elaborated with reasoning that students actively participated in the subject using the smart tool for assessment.

Hemminki, (2019), stated multiple advantages of using kahoot in the classroom environment. The results of the students' survey of their satisfaction using the tool indicated that they had optimum chances to explore a new experience of getting feedback and monitor their own progress. In response to the improvement of decision-making processes, the use of smart assessment has become increasingly necessary in the rapidly

changing world. This being the valid reason to investigate students' perception toward the utilization of kahoot as a smart assessment tool. In the study we also look at the effect of students' scores on weekly assessment in the subject of Mathematics with the use of kahoot application and considers if Pakistani students at the elementary level are satisfied utilizing it.

## **Methodology**

### **Participants**

As suggested by Campbell, Greenwood, Walker, Prior, Young, Bywaters, Shearer, Walkem, (2020) purposive sampling is a common technique in mixed method approach and gives useful information to achieve objectives. Population for the research comprised of all the private schools of Punjab, Pakistan. Forty-four students were selected purposively from a private school in Lahore, Pakistan for the pre-experimental study and out of them five students were selected for the semi-structured interview, constituted the sample of the study. The ethical considerations were strictly adhered to and for the purpose, the researcher sought consent of the respondents to conduct interviews for finding their perceptions about the phenomenon under study.

The experimental study was conducted to determine the effect of kahoot assessment on students' engagement and learning in Mathematics at the elementary level. The study may be helpful in introducing mathematics smart tool for assessment in the education system of Pakistan. Alf Inge Wang developed a free access on-line assessment tool 'kahoot' in 2013 (Prieto, Orcos, Blazquez, & León, 2019). The semi-structured was designed focusing on the students' satisfaction using kahoot! at the university level. A total of five students were selected for the interview. The semi-structured interview also elaborated five questions.

In the first phase, total of five intermittent tests were created by the teachers applied using kahoot platform in the math class included for the study at the elementary level to observe the knowledge that they have gained. Five tests of ten items each were conducted during the term. The conceptual test was administered in the subject of Mathematics based on MCQ. There were double point fifty items of 100 marks in total. Pictures, and videos were also included to make test more understandable, meaningful and attractive for students. Thus, it increases more engagement, creativity and performance in the learning process resulting from working through games as effective method of competition among students greatly improves active participation. Interview data were collected on students' satisfaction on kahoot assessment. Quantitative and qualitative data analysis enabled the discussion to discover the effect of the tool on students' learning acquisition and involvement of their work. In the second phase, kahoot will be applied in the subject of math during the academic year 2022-2023 and students' perception were taken on the use of kahoot.

### **Investigation Tool for the Study**

Two instruments were used to explore the effectiveness of kahoot assessment on students' learning and their perceptions on the use of kahoot. A semi-structured interview seeking open-ended answers was administered for the study and the achievement test consisting of 50 items – distributed ten items for five tests each of post-test. The interview questions were pilot tested on two students out of the sample for making necessary changes. The interview questions were reduced from seven to five after getting feedback from them with some content changes to conduct inductive analysis manually. Themes and patterns were derived from responses of major research questions. The voices of students were recorded, presented and discussed under each question. Each participant

was interviewed within the duration of 10 minutes on average.

### Pre-Experimental Design

The study focuses on learning outcome by comparing pretest and posttest of the experimental group. It is found that the group who involved Kahoot in their learning process has better academic performances than before when they used paper-based quiz. The table clearly shows that the assessment through kahoot

is a useful media that provides more positive effects on cognitive and affective aspects to lead the students' learning better by enhancing their active thinking and boosting their motivation and interest in the learning process.

All of the data in this discussion were taken from grade 8 students who are studying Math applying pre-experimental design for pre & posttests. Individual student Math pretest and post-test scores were used to measure students' Math learning acquisition.

Kolmogorov-Smirnov			
	Statistics	df	Sig.
Pre Test	.076	22	.200*
Post Test	.110	22	.200*

\*. This is a lower bound of the true significance.

### Test of Normality

It is seen from the table of normality test for the data that the value of the Kolmogorov–Smirnov Test is  $> 0.05$ , the data is normal.

Paired Differences								
				95% Confidence Interval of the Difference				
	Mean	SD	Std. Error Mean	Lower	Upper	T	df	Sig. (2-tailed)
Pre & PostTest Exp.	-10.364	15.503	3.305	-17.237	-3.490	-3.136	21	.005

### Paired Samples Test

Table above represents the paired sample test of private school at the elementary level participants. Pretest scores of total 44 students were low moderate but positive significant relation and had a significant level of .005. Statistically it is less than 0.05. According the

table, it has a standard error mean of 3.305 with 95% confidence interval and a paired difference of -17.237. Thus, it is clear that the intervention for assessment tool had a significant effect on students' skills and their learning outcome.

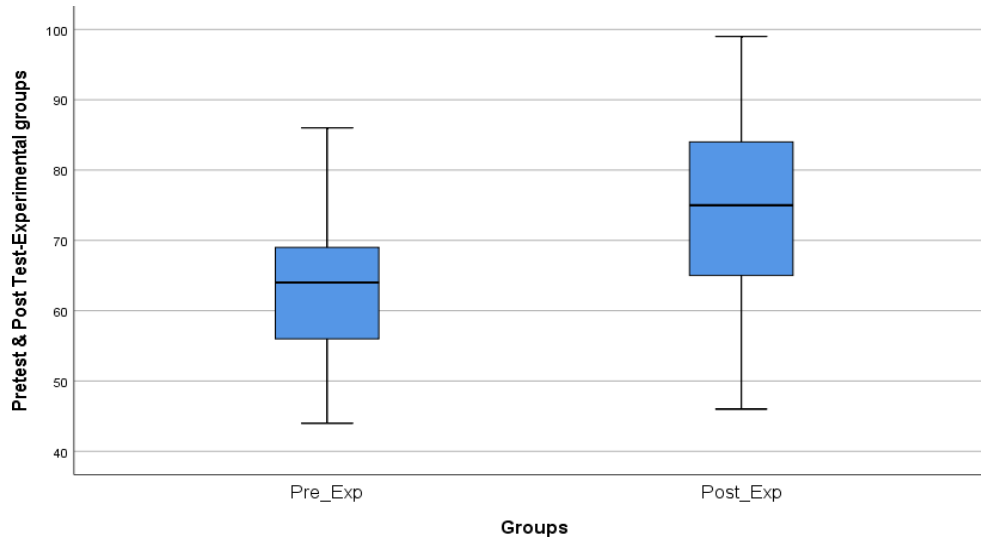


Figure above represents 'box plot' that shows center of the pre-test is higher than the center of the post-test and there is slightly more spread in the pretest as compared to the post test scores. This represents that the difference in paired sample t-test must be significant. Boxes are completely at different levels, which are significant.

Overall result confirms that intervention of kahoot assessment has a significant positive effect on students' outcome. Primary aim of this research was to explore the effectiveness of the game-based assessment tool 'Kahoot' on math learning acquisition at the elementary level in Pakistan. The use of smart assessment significantly increased student math learning from the pretest scores to the posttest scores. The study of 44 students suggests that the students who received assessment with kahoot scored significantly in the post-test better than the pre-test.

### Data Analysis, Findings -- Semi-Structured Interview

For the purpose of anonymity of participants, the interviews were given codes as S1, S2, S3, S4, S5 respectively. The responses and interpretations are given below:

#### Qs1. What benefits did you achieve from the tool?

All the respondents of the study showed positive comments for the answer of the first question. Almost all participants agreed that it has many advantages and is a useful tool. Students express their great interest in using this tool as playing their nature (Akmal, Masna, & Nasution, 2021). Hence, this kind of assessment tool suits their needs and nature.

S1 told that, "It increases engagement and involvement so we took interest to learn. We work in teams to play with the class through kahoot. It brings all of us in one platform. It also improves motivation for learning. Motivation in learning rises every time."

S2 claimed that, "A new type of interaction and learning in the classroom, it engages us all more. This new and game-like experience and exposure makes theory and complex concepts easier than before."

S3 explained, "I feel more fun and excitement every time I play."

S4 also explained, "It was first time I am using it. I feel excited, as it is a different learning platform. It promotes creativity."

S5 also stated that, “When we talk about interesting it encourages us to join kahoot next time.” Hence, it has a productive and worthwhile impact on gaining knowledge about the content.

Researcher illicit from the views of the participants that it is easy to use the tool. They opined that it is unique, new and different tool other than smart platforms. More so, they feel fun and excitement, as it is colorful and attractive tool as well.

S1 further said, “The way the assessment is done is very good. After submitting all answers to items, all students can discuss the discrepancies, shortcomings and mistakes. We feel fully engaged and involved. We learn while play!”

Researcher concluded from the answers of students that the class is more active, the reason being all students are interested to play and win.



**Fig: Benefits of using kahoot!**

## **Qs2. What are extra challenges that you face in doing this kind of assessments?**

Though it is a free tool however, using technology in the classroom is a challenge as not everyone has the capability to troubleshoot technical errors and issues.

S1 stated that, “There is no time to interact with teachers during test. However, teachers also don’t have time to respond to students.”

Another participant told, “The main challenge that I faced is the technical issues. Internet was irregular and sometimes unavailable. The classroom dynamics and laboratories were sometimes occupied by other students.”

Based on the answers above, the main challenge found is the network connection. Hence, while playing kahoot, there must be strong, high-speed and smooth Internet. Secondly, they feel stress and panic in answer every question in fixed time since it creates competition among them.

S3 also supported the idea of low-speed internet issue, “Sometimes, Internet was not available or due to broken Internet due to the reason either items or answers were not seen on the projected screen.”

Error while playing due to bad network connection. The game-like assessment requires the support of network connection. Sometimes, irregular or broken connection can cause the error



in playing test. Two of the participants agreed that it is the most commonly occurred challenge if they do not have a stable connection.

S1 further argued that, "I experienced, bad or slow internet connection and this is what I dislike about Kahoot."

S4 and S5 both agreed: "I did not face poor internet problem as I have good and stable internet connection. For me the issue that I experienced the time allocated for one item using kahoot sometimes."

S4 said, "So, I dislike timer feature in the quiz."

S5 also claimed that, "I feel that while creating a quiz, time for every item should be carefully thought as time for every item should not be same as some items require more time to think."

From these answers of the participants, the researcher can elicit that some students dislike the timer on Kahoot, as it can make them panic while answering questions.

S3 also told, "I was not able to change answer after submission."

S5 said, "Time stress and afraid to miss answers/items are the main challenge to mention

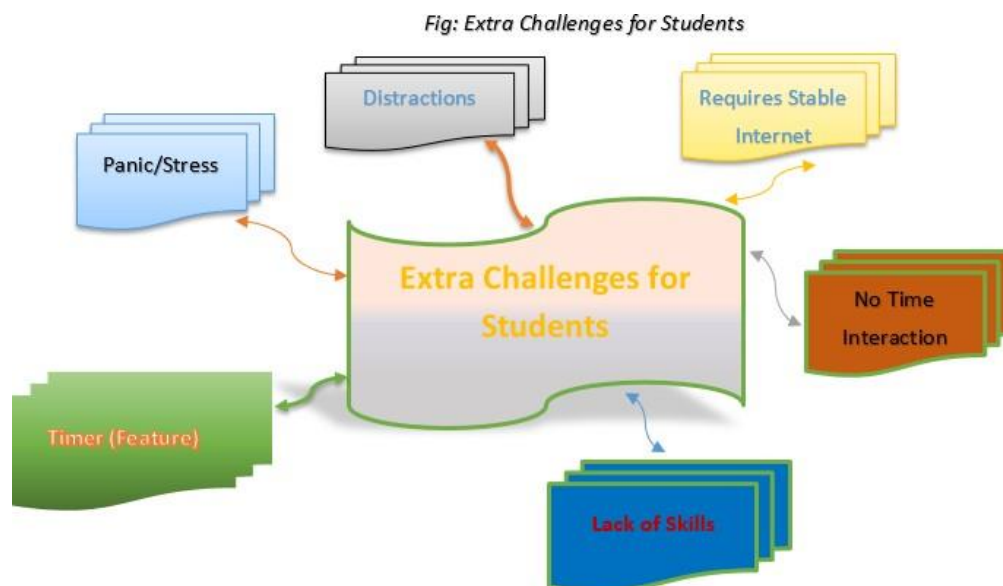
so due to time for each item I missed replying the answer."

S4 pointed out that, "There is a lot of stress of time constraints or pressure to answer items on the screen. We don't have enough time to answer the questions as it depends on the difficulty level of the items and more so, at times we have to guess the answers."

S1 stated, "Problems related to network connectivity. However, kahoot has its own defects, sometimes I experienced in using the tool that while playing there is network problem and I don't see questions on the screen."

S5 further claimed and argued, "Sound or background music disturbs the focus to answer questions. I got distracted while answering my question on the projected screen."

From this, it can be concluded that the music creates disturbance and they lose their concentration while answering the questions using Kahoot for the quiz. However, this situation has happened with two students while others considered it as fun-part of kahoot. This feature can be turned on and off.



### Qs3. How do you feel about the environment of the classroom?

It promotes fun-learning and game-like environment along with stimulating quick decisions instead of using a traditional paper quiz. It gives a positive learning environment. Participant S1 stated, “Most important, I am able to understand and use math symbols correctly.” S4 added, “It is very obvious that the class is more active and interactive, and so competitive. Therefore, the classroom is full with happy surroundings.”

S2 said, “In the elementary level context, the tool has an ability to enable and transform classroom into fun learning and competitive environment

where we are all powerfully motivated to learn conceptually.”

As S1 explained, “It makes the classroom competitive, more fun-learning with new environment. I try to be more focused to win.” Hence, this kind of assessment motivates them to get highest score since, it shows winners name on the podium at the end.

S3 and S5 said, “Due to the advancement of technology our classrooms are improved and students participate actively.”

Hence, it can be concluded that the digital tool provided by technology highly dependent upon classroom environment and settings.

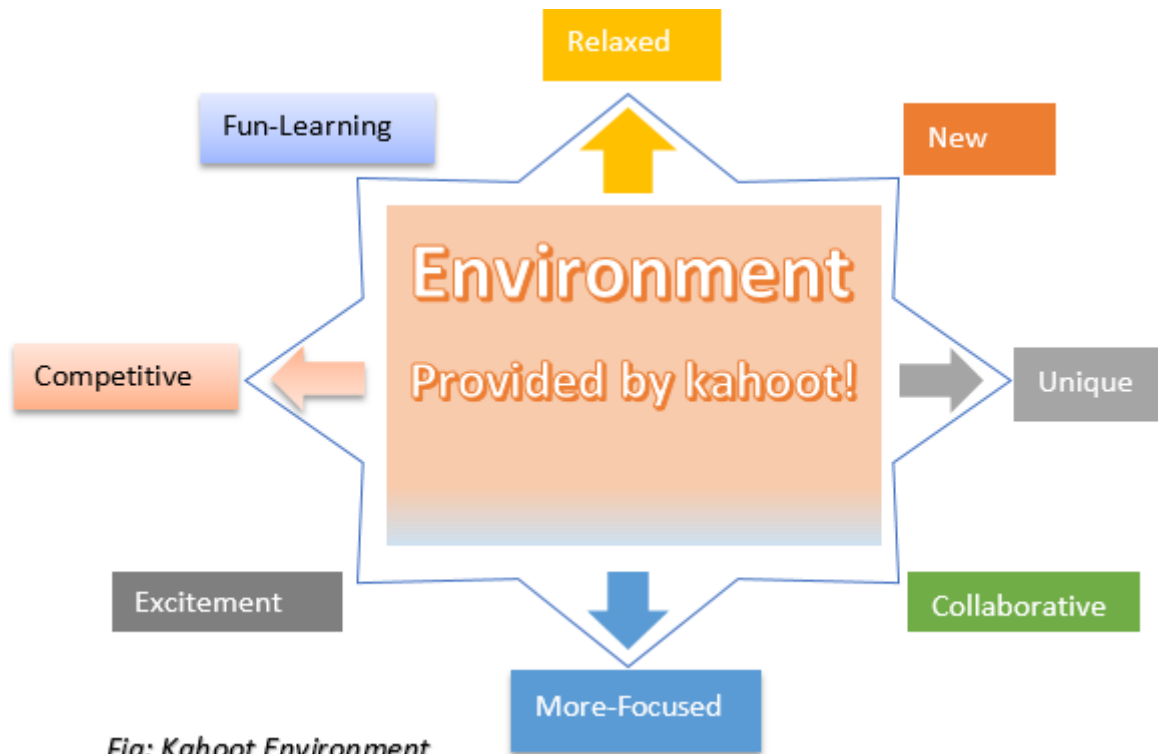


Fig: Kahoot Environment

### Qs4. How does this tool enhance your learning outcome?

S1 and S2 stated almost the same, “We learn through fun and enjoyment. We concentrate more and learn more in less time. As we all need change and break from traditional ways.”

S3 also propounded that, “It has improved my understanding and concepts to learn complex topics of subjects.”

One of the participants claimed that it is a new assessment tool to enhance learning. It has

amazing features and unique tool as compared to other tools.

S5 said, “I have revised my knowledge about the topic that we studied in the classroom.”

Through kahoot, students were able to review their knowledge and affects their learning performances with the biggest impact on the classroom atmosphere.

Based on students’ perception about gaining knowledge, the researcher concluded that students learn as better motivation, interest, excitement due to its uniqueness pushes them to join the class, actively participate and win. They are more confident in answering questions as kahoot provides students opportunity and freedom to actively participate with others. In traditional classrooms, some students feel hesitant in replying teacher’s question. Therefore,

learning through engagement through kahoot! shown by all the students, since, they followed a lot anywhere, anytime and stress free.

S3 further added, “kahoot is able to make us fully involved and focused without anxiety and tension of tests.”

S1 said, “It really helps to increase my knowledge and understanding about the topic. The complex and simple topics are clearer and we have improved our learning.”

Three of the students stated that kahoot greatly helps to enhance knowledge about the topic. Researcher believes that the smart tool helps them in understanding and comprehension of material. Furthermore, the tool deepens their understanding of the questions and they are able to revise or relearn their work.

**Fig: Learning Outcomes**



**Qs5. Do you recommend continuing this kind of assessment? Why?**

S3 said, “kahoot is able to make us fully involved and focused without anxiety and tension of tests. So, I recommend the tool under certain

circumstances if the classroom has good internet connection.”

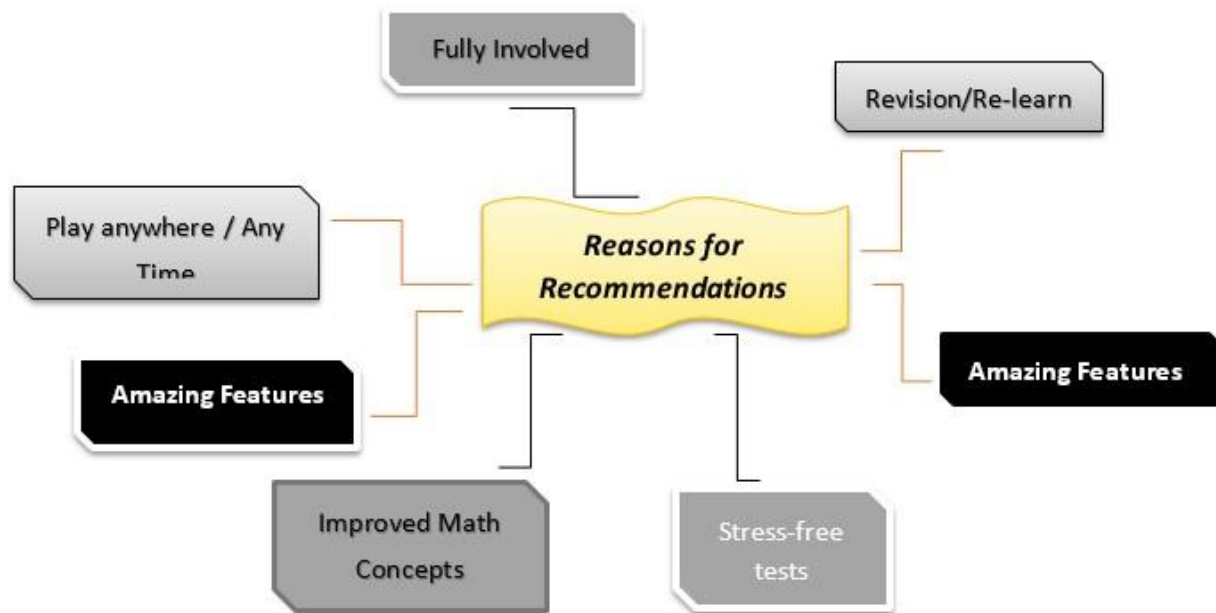
Almost all the participants agreed that “Yes, we strongly recommend but classroom should be supported with projector and other devices to play Kahoot. Since, it is a useful tool as we get immediate feedback and also we are able to monitor our progress.”

S1 and S5 pointed, “We are able to know instantly about the right answer without having to wait. It helps a lot in our learning. It has many advantageous.” Thus, the tool can be useful for them since they can know the right answer right away. Moreover, it enables them to revise and re-learn about the content that they just have learned about the topic.

S2 further added, “When we are being evaluated through kahoot, we are all involved, high-spirited, active and excited even if the topic is boring.” Hence, class is quite silence at that time when kahoot is applied as they feel competitive and collaborative as they want to answer questions and win. It boosts their engagement. Thus, it is a helpful tool in learning.

S4 commented that, “I do recommend as it is easy to use tool and provides better learning environment. I have also improved my technical skills.”

More important, researcher can conclude that it enhances quality of education and increases their process of education and overall skills.



*Fig: Reasons for Recommendations*

## Discussion

The use of kahoot significantly increased student scores from pretest to posttest. The study of forty-four students suggested that the students who received kahoot as an assessment tool scored significantly better. The findings of current

research corroborate the results of Nurhadianti & Pratolo (2020) that the inclusion of the smart assessment tool in the learning process influenced the quality of students' learning. Besides, this assessment tool can be utilized effectively in assessing students' mastery on the subjects offered. Similar ideas are also observed in

investigations of Abrams and Walsh (2014), in which students' vocabulary acquisition enhanced with the use of kahoot.

The results obtained by them after semi-structured interview from the study revealed that the use of ICT tools and techniques in teaching and learning process enhanced the students' concepts, logical reasoning, understanding and approach towards the subject. More importantly, their attitudes for learning affected and significantly improved in their class activities and on written test. These tests showed higher learning gains and provide useful feedback during the learning process. The findings showed implementation helps them to enjoy the learning as compared to traditional method of assessment. The results also revealed that how the use of kahoot can create involvement and effective learning outcome among the students at elementary level for teaching mathematics in the classroom.

The analysis revealed that the more fun-based assessment like kahoot learning math, the greater their learning gains. The figure shows that, the longer the children are in the smart system, the greater the rate of technological skills becomes.

The formative intermittent assessments through games can improve their understanding and attracts focus to learn the math topics. Hence, the ways that the assessments were done give positive impact to students, teachers and even educational institutions in an effort to make changes in terms their traditional teaching-assessment-learning ways to new approaches and techniques.

Therefore, the smart tool for assessment at the elementary level proved to be supportive in promoting and enhancing the learning outcome through fun activity in Mathematics. Furthermore, the need for the application is evident as its use is simple and student friendly

and proved that it is favorably suited to the nature of the subject for best learning outcome for all types of students with the higher order cognitive abilities. The discussion of the present paper will be beneficial to not only educators and students of all levels of education but also for curriculum developers in terms of increasing the quality of teaching, learning and assessing mathematics specifically. It is therefore, recommended to use the application for getting feedback by cooperation and competition through fun. The issue to be addressed also includes the challenge of using quality assessment which is of significant importance in the developing countries particularly, Pakistan. The study also concluded that the smart assessment helps university students to analyze their own performance, so that time spent in taking test can be reduced without reducing the 'test' itself. It also provides opportunities for learning in Mathematics. Thus, it is a perfect solution to create interactive and smart way to understand concepts of the subject. Students found it fun learning and assessing themselves, as it is easy to use.

## Conclusion

The research was encouraging as it demonstrates the positive effect that playing Kahoot has on Math learning acquisition. It also showed that using kahoot in classroom does have some positive effects on keeping students focused, and motivating in learning math. Findings of the students' satisfaction perception were positive and revealed that they enjoyed the way the assessment was taken as well as found it useful and productive to their assessment preparedness. Further researches are recommended to be conducted with a larger number of respondents and over a greater time period on this smart media for assessment and learning acquisition. To add more, teachers' perception may also be articulated for their experience of this kind of assessment.

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