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Perceptions of Quizizz Mobile App Game: Insights from Undergraduate Students

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Abstract

This study explores undergraduate students' perceptions of the Quizizz mobile app game as a tool for learning. In the 21st century learning, educational mobile app games are given equal importance for students' engagements. One of the most easily accessed educational mobile apps is now available to make the lessons more engaging for the students. Quizizz is an interactive platform that allows educators to create engaging quizzes and students to participate in a game-based learning environment. The research aims to understand how students perceive the effectiveness, engagement, and overall impact of Quizizz on their learning experiences. The data was collected through focus group discussions and semi-structured interviews. The findings indicate that a majority of students view Quizizz positively, highlighting its role in increasing motivation, enhancing learning through immediate feedback, and making study sessions more enjoyable. However, some students expressed concerns about the potential for distraction and the varying quality of quizzes. The study also reveals differences in perception based on academic discipline and prior familiarity with gamified learning tools.

Keywords: Quizziz, Undergraduate Learners, 21st Century Learning, Mobile Learning.

Introduction

In the evolving landscape of 21st century education, the integration of educational technology into teaching and learning has become increasingly vital. Mobile phones are perhaps the most divisive technology in the classroom in the last 25 years. When it was first used in the classroom in the 90s, the teachers took it as a main disrupter and soon it was banned from using in the education field as it distracted many students and teachers. However, as Said (2015) mentioned, rapid and continual development in information and communication (ICT), including improved wireless networking and the use of mobile devices between students, created a new learning environment called "Mobile Learning" or "M-learning". Now, incorporating mobile devices has simply been the new approach for teachers to attract the students' attention. Furthermore, students are more engaged when they are given

assessments through digital devices and simply gauge their attention. This statement was then confirmed by Nurhadianti & Pratolo (2020), in their research where they indicated the assessment can diagnose students' participation in learning activities which later determines their achievement in the learning process.

Hence, in this research, the researcher has focused on collecting the undergraduate students' perception of using mobile devices in the classroom specifically for learning a language in terms of mobile app game called 'Quizziz'. This study then believed to be driven by the growing integration of gamified tools in learning in the higher education sector especially in the use of mobile applications like Quizziz.

Problem Statement

For many years, Information Communication Technology (ICT) has covered many parts of the education system. It is now commonly used in many schools, colleges and universities where many teachers are aware of the importance of 21st-century learning which is suited to students' preference. Even though the educational mobile app games are helpful for the students to enhances their understanding towards a topic, it is important for the teachers to know the students' actual perception in using these games in the classroom. Students are encouraged to use in tertiary education as they are more obedient in listening to the teachers' rules on the usage of mobile devices. This research takes the lead in collecting the second language learners' perception as there is limited research to support this view. In the Malaysian context, even though educational mobile app games received diverse attention from educators in their tertiary teaching there is very limited research done to support this view on the use of Quizizz. This research then focuses on two objectives namely analysing the student's perception of using the educational mobile app game Quizizz in their classroom and to investigate how Quizizz helps the students to understand the content better.

Research Questions

I. What are the undergraduate students' perceptions of the mobile app game Quizizz?
II. How do mobile app games help undergraduate students to understand their content better?

Scope and Limitation of Study

This study has a few flaws despite producing insightful results. The first limitation of this study would be the size of the samples. There are only 56 students per class for the undergraduate students in University Kebangsaan Malaysia (UKM). The questionnaire of this research was given to all 56 students whereas there were only 7 students who could attend the interview session. Since there is only one level of course that has been selected, the findings of the studies may not be generalised for all the students in tertiary education.

Literature Review

Benefits of Mobile Learning

Mobile devices have taken the role of education the learners in this advance's world of technology. As (Cheon, Lee, Crooks & Song 2012) highlights how mobile learning or mobile apps are still emerging in higher education learning. In an extensive study done by (Zhaokun Meng and Rui Li, 2023) where 231 Chinese in-service teachers in the shared mobile learning community were exposed to ubiquitous, multimodal and engaging informal learning

environments, and Chinese teachers tend to positively adopt informal online learning. This shows how our 21st century learning has been slowly revolving around mobile phones and tablets. Murat (2015) mentioned that there's the increased use of wireless technologies in education all over the world and wireless technologies such as laptop computers and mobile phones are revolutionizing education and transforming the traditional classroom-based learning and teaching into any time and anywhere education.

Disadvantages of Mobile Learning

With the advancement of technologies and the personal use of mobile devices, it allows the learner to find many alternative ways to cheat as they can easily find the source for free answers. (Asabare 2013) cited the disadvantages of mobile learning in several ways where it was mentioned mobile learning may give opportunities for students to cheat if there is no monitoring system was applied in mobile learning. It was also mentioned that mobile learning could also require an additional learning curve for non-technical students where it could be challenging for them to adapt to new learning. This aligned with a study where it was found that some students perceive tablets as frustrating tool use and a distraction from learning as they were not used to it (Butcher 2014).

Advantages of Using Mobile App in the Classroom

There are many advantages one could face in using a mobile app in everyday teaching and the learning process. The acceptance of mobile technology in current education is increasing day by day as many institutes are understanding the technology adopting theory. Gangaiamaran (2017) wrote a review on the use of mobile apps for language learning in the tertiary level and in the paper, it aimed to classify the apps in order to assist the learner categories from weak to advanced learners as it would help them choose the appropriate mobile app. In this paper, he has suggested that using a mobile app develops skills in handling the mobile app that later it becomes the learners' interest to use the application automatically.

In a recent study which was conducted in Thailand by (Kwangsawad 2019) recorded the students' perception of MALL in EFL classes. In the research, it investigated the students' perception of the benefits and challenges associated with their smartphones for learning. In the study, it was found that the EFL students use their smartphones for EFL apps to try out the activities to benefit, fun and productive. Some students mentioned that the use of a mobile app has boosted their motivation to learn English more. This somehow proves that mobile app gives positive impact to learners as they are exposed to a new trend of learning rather than the traditional method of learning.

Disadvantage of Using Mobile Apps in the Classroom

Despite the advantages of using a mobile app in the classroom, there are also many disadvantages of using a mobile app in the classroom. One of the most common disadvantages of using mobile apps is the use of mobile devices increases the student's level of distraction and it also encourages a shallow level of cognitive processing. In a recent study by (Mueller & Oppenheimen 2015), the students were assigned to take notes on a lecture, but the research showed that notetaking through students' laptops have led to the shallow level of processing to poor memory.

Apart from this, the use of a mobile app would also distract the student's attention in concentrating on a particular task. Especially when the students have internet access through their mobile devices. It would also allow them to simply use or slide through other application in their mobile devices. This aligned with a study which was conducted in a university in Thailand where the students were asked to use their mobile devices to use the following educational apps such as Kahoot, Picker and Quizlet during their lesson to improve their understanding of each lesson but it came to know the students have misused their smartphones for their social and personal purposes during the lessons.

This has given the research to have strict guidelines to use their mobile devices only when it needed to avoid the students from misusing their mobile devices. In the same study, they highlighted another drawback of using mobile apps, the low coverage of internet services often leads to demotivating the students in the classroom from focusing on the lesson. It was said one of the main barriers for students to not keep up with their lessons (Kwangsawad 2019).

Relevant Studies on the Integration of Mobile Learning

Yunus and Shian (2017), conducted a case study among primary ESL classroom where the researcher used audio clips in developing listening comprehension skill of the students. The research recorded the teacher's perception of the usability of the audio clips and the student's perception in recording their experiences of the lesson. The study recorded the teacher's perception as many confessed that using these audio clips has captured the student's full attention as it was more suitable to listen compared to the teacher's voice. The teachers were overwhelmed by the students' attention as they were listening closely to the audio clips to get the answers.

Moreover, the teachers also agreed that the use of audio clips is more convenient and easier as they don't need to bring piles of books to the classroom like a traditional classroom. They mentioned that; they only used their mobile phones to play the audio clips through the speaker, so it was easy for them. As for the students' perception towards the use of audio clips to improve their listening skills, the students agreed that the lesson was fun and interesting as they find the activities like these are new and something, they would want to try in everyday lessons compared to the traditional way of learning. The students also agreed that activities in such as using the audio clips help them to concentrate and engage in class more as they need to pay close attention to the audio clips throughout the entire time. McCaughey (2015) further supported this by saying short audios can get learners to be silent and give full attention as they could not attend to miss out on any words.

The overall study confirmed that the audio clips developed the students listening comprehension skills among students. The researches confirmed that the frequent use of audio clips activity has improved the students speaking skills as they pay close attention to the pronunciation of certain new vocabularies.

Bakar, Noordin & Razali (2019), study on the effectiveness of project-based learning in improving listening competency among ESL learners at a Malaysian TVET college showed that the researchers have used mobile apps such as YouTube and British Council Learning App to adopt the recordings for this research. There was a total of 44 students in 16 weeks of study

where the researchers taught the students on basic communicative English course using Project-Based Learning Teaching strategy based on PjBL module. In every lesson, the students were given the listening competency test which comprised of dialogue listening and monologue listening. The overall results showed the use of authentic and non-authentic audio and video clips has improved the students listening comprehension. In this study, it was mentioned that the listening competency of the students was not developed naturally but through constant practice and scaffolding during the intervention has improved the students listening and communicative skill overall.

Jaradat (2014), investigated the performance of students comparing the before and after using the mobile app to learn French. 36 students participated in the study for 2 semesters and the data collected in both formal and informal settings. A survey was applied and 10 students were randomly chosen to conduct interviews. The result of the study showed that 76% of the students preferred to get French classes on mobile rather than in a classroom or on a computer, and 90% of the students stated that they were satisfied with the mobile app. The increase in adopting of digital tools in educational settings, it is highly important to understand how technologies like these are perceived by students, particularly in terms of their engagement and effectiveness in supporting learning.

Methodology

Theoretical Framework

Table 1

Theoretical Framework

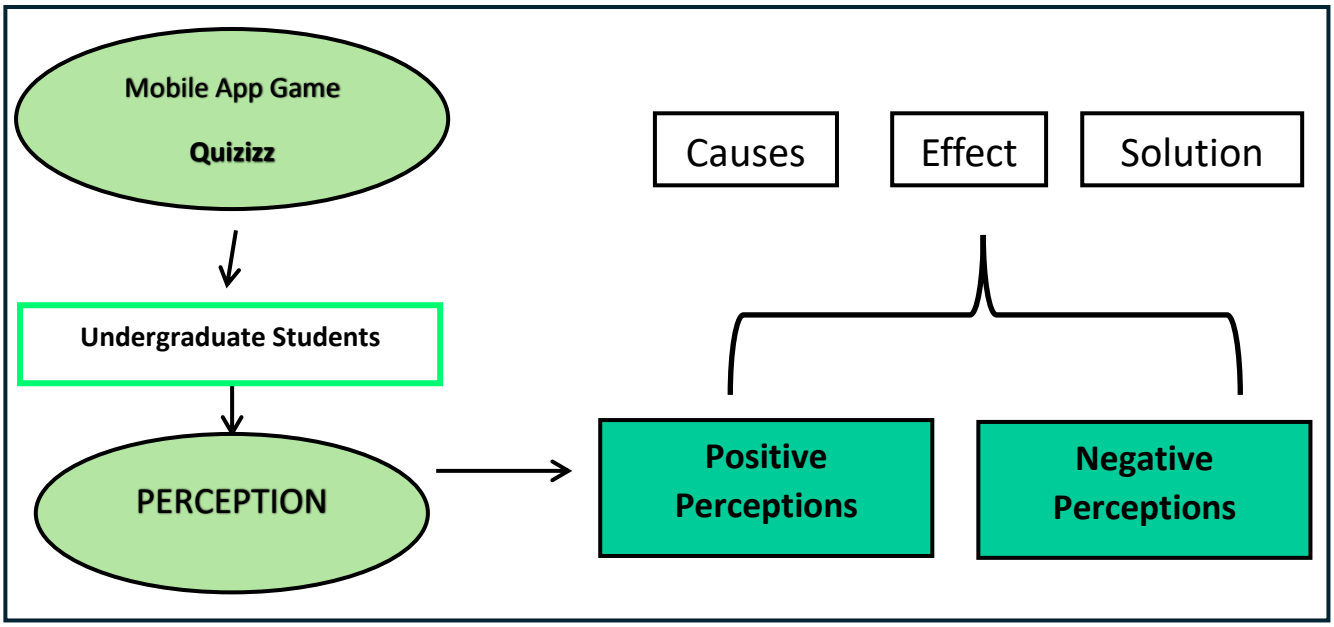

Table 1 above shows The Perceptions of Quizizz Mobile App Game: Insights from Undergraduate Students. In this research, the researcher has closely focused on the undergraduate students' perception towards Quizizz mobile app games. This is to know the undergraduate students' perception in using the Quizizz to improve their understanding of a particular topic. Ball (2011) states that it increases learner autonomy and motivation; enables transferability of skills to the real-life; let students get instant feedback and make it easier for

students to track the progress of their goals. The feature of the scoreboard will allow both teachers and students to know their overall progress in knowing a topic thoroughly.

Research Design

Since this research focuses on both effectiveness of the mobile app in developing listening skill and to analyse students' perceptions towards the use of the mobile app game, this research employs mix-mode research where the data is collected quantitatively and qualitatively. This is aligned with (Cresswell 2014) definition on mix-mode approach where there will be equal emphasis on both quantitative and qualitative data. The perception of students will be collected through two methods, one is semi-structured interview among selected students by the researcher and second a questionnaire to identify the student's detailed perception as well.

Research Sample

In this study, there were 56 students who were currently pursuing their first and second year of bachelor's degree in TESL in University Kebangsaan Malaysia (UKM). These students represent the age group from 19 to 23 years old.

Research Instruments

For this study, there were various instruments used to collect data from the participants. This study used a questionnaire and a semi-structured interview method to collect the qualitative and quantitative data of the students' perceptions. The instruments used for this study is described in the following sections.

Table 2
Research Instrument

Research Questions	Instrument
What are the students' perceptions towards mobile app game, Quizizz?	The Questionnaires Semi-structured Interview
How does mobile app game Quizizz help the undergraduate students to understand their content better?	The Questionnaires Semi-structured Interview

Data Collection Procedure

Week 1/ Phase 1

As this was the beginning stage, the researcher introduced herself to the students and got to know about the students and their backgrounds. The researcher then explained the purpose of conducting this research among the students. During the lesson, the researcher observed the class to get the idea of how students work together. The topic for that day was focusing on the topic of language and the brain. The lecturer made the students read their notes on their own where she made the students sit group and each group were assigned a topic to read and present to class later. The students actively involved in the process and it showed the active learning process as it showed the student-centred learning. The teacher was only a facilitator.

Week 2 / Phase 2

As for the second week, the researcher introduced the Quizizz to the students who were prepared earlier by the lecturer. Before the students were exposed to the Quizizz, the students were asked to fill in their response to the questionnaire first. Then, the researcher explained the following process. The researcher made sure that all students are aware of the features of the Quizizz. The researcher shared the code with the students so they could key in their names to begin answering the question in groups. As they are adult learners, the students were able to follow and do all their work independently as they required zero help from the researcher. The students were asked to key in their answer only after discussing with their group mates. Social interaction took place where many students sat with their group mates to discuss the questions.

Week 3 / Phase 3

As for the final week, the final stage of this study, the researcher gave the same set of questionnaires to the students. This is to see if there's any difference in students' perceptions towards the use of Quizizz then a semi-structured interview carried out among seven undergraduate students to know more about the students' experience in involving in this study and how it helps them understand the content better.

Data Analysis Procedure

The quantitative data that was collected from the questionnaire will be analysed through descriptive data analysis using percentages. Whereas the interview response from the students will be analysed briefly using themes to make an easier understanding of the result and their response. The data that was collected through the interview will be transcribed.

Findings

Questionnaire

The questionnaire for this study was divided into three sections where each section collects students' response on different features of the mobile app games generally. The researcher adopted the TAM model to construct the questionnaire thus each section of the questionnaire focus on different criteria of the mobile app game. The findings of the questionnaire will be shown in percentages to see the difference between the students' response before and after they were exposed to the use of Quizizz.

Perceived Ease of Use (PEoU)

This part of the questionnaire addresses four questions where it focuses on the basic use of the mobile app game.

Results

Strongly Disagree	Disagree	Somewhat Agree	Agree	Strongly Agree
0	1	1	18	36

I think educational mobile app games are easy to use.

Table 1
The result above shows the students response before they were exposed to Quizizz

Strongly Disagree	Disagree	Somewhat Agree	Agree	Strongly Agree
0	0	3	20	33

(Table 2: The result above shows the students response after they were exposed to Quizizz)

Before the undergraduate students were exposed to the Quizizz game, their perception of the easy use of mobile app games generally showed relatable a good result. As can be seen from table 1 62.3% of the class strongly agreed on this statement whereas 33.3% agreed and with only 3.8% of the students quite not agree with this statement. This disagreement may cause from the unfamiliarity of them in any educational mobile games. The unfamiliarity of the students usually caused by the lack of exposure in the use of mobile app games. However, the student's response showed a slight difference in the questionnaire after they were exposed to the Quizizz game.

The significant difference that can be identified is the from 62.3% students strongly agreeing to the statement was later dropped to 61.1%. This could happen due to students struggle to familiarise with the features of Quizizz's app. Another significant difference that can be identified from the tables above is the number of students who disagreed to the statement before has changed to zero after they were exposed to the Quizizz. This could mean how Quizizz's exposure has changed the students' perception of what they thought of earlier. This supported by Zicherman and Cunningham (2011) 'Gamification enables learners to change the ways of thinking through following the gaming rules in the problem-solving process'.
I think mobile app games are easy to understand. (Interface and Menus)

Table 3
The result above shows the students response before they were exposed to Quizizz

Strongly Disagree	Disagree	Somewhat Agree	Agree	Strongly Agree
0	2	3	27	24

Table 4
The result above shows the students response after they were exposed to Quizizz

Strongly Disagree	Disagree	Somewhat Agree	Agree	Strongly Agree
0	0	4	23	29

The second questionnaire's question focused on the interface and menus of the mobile app games. This is to know the easy access of mobile app games in everyone's gadgets and the clear instruction on the menus. As it can be seen from the table, the significant change is identified as 45.3% has strongly agreed on this statement but the result changed after they have used the Quizizz as the percentage increased to 51.8%. Recent research done by Zhao supports this view as she says the colourful interface, avatars and music provide students with a similar experience as a game does (Zhao 2019). Quizizz consists of many features such as

colourful backgrounds, gifs, pictures and music to entertain the players as they answer the questions.

I think it is essential for learners to acquire the basic skill of using technology devices to benefit from mobile app games.

Table 5
The result above shows the students response before they were exposed to Quizizz

Strongly Disagree	Disagree	Somewhat Agree	Agree	Strongly Agree
0	0	9	21	26

Table 6
The result above shows the students response after they were exposed to Quizizz

Strongly Disagree	Disagree	Somewhat Agree	Agree	Strongly Agree
0	0	3	20	33

The third question focused on a general question of acquiring the basic skill of using technology for students to benefit from it. This question will allow the researcher to know the general view of the undergraduate students on the importance of gaining such knowledge in handling the mobile app features. This result shows earlier there were only 26 students or 46% of them strongly agreed to the statement but the perception of the undergraduate students completely changed when they were exposed to the Quizizz app where 58.9% strongly agreed with this statement. As Kadirire (2009) says the development and creation of new software tools and applications for different mobile devixes would be another challenge of mobile learning, this makes the learning process vital. Earlier there were 16% of them whom chose somewhat agree with the statement but later there were only 5.4% agreed to the statement. These 3 students may have the perception as mobile apps are easy to understand from its easy access to menus.
I need a lot of training in using mobile devices to learn effectively from playing mobile app games.

Table 7
The result above shows the students response before they were exposed to Quizizz

Strongly Disagree	Disagree	Somewhat Agree	Agree	Strongly Agree
3	13	17	17	6

Table 8
The result above shows the students response after they were exposed to Quizizz

Strongly Disagree	Disagree	Somewhat Agree	Agree	Strongly Agree
3	10	15	13	15

The final question asked for the second part of the questionnaire is based on the student's own ability to use any educational mobile app games. As seen from the tables above, it shows

many of them depended on the agree corner after they were exposed to the Quizizz and its shows the students need a lot more practice or training to fully utilise or to understand on the usage of Quizizz. In other words, it can be predicted that students feel this way too may cause the lack of understanding from answering the questions in the game. The undergraduate may mistakenly choose this choice as they need more training to cover the topic, they learnt in terms to score full marks as almost 70% agreed with this statement.

Perceived Usefulness (PU)

This part of the questionnaire focuses on the degree of undergraduate student beliefs towards the use of particular mobile app games to enhance his or her understanding of the topic.

Findings

I think learning English through mobile phone app games is useful in improving my understanding.

Table 1

The result above shows the students response before they were exposed to Quizizz

Strongly Disagree	Disagree	Somewhat Agree	Agree	Strongly Agree
0	0	3	27	26

Table 2

The result above shows the students response after they were exposed to Quizizz

Strongly Disagree	Disagree	Somewhat Agree	Agree	Strongly Agree
0	0	3	27	26

This question would give the researcher the attitude of undergraduate students in the usage of mobile app games. As can be seen from table 1 and 2 there are no significant changes in the student's response as it remained the same before and after the students were exposed to mobile app game. There was no student who disagreed on this statement as all of them chose to say mobile app do help them understand the content better. In both, the tables 46.4% of students who strongly agreed on this statement and 48.2% of the class chose to agree whereas just 5.4% of the students chose to somewhat agree with this statement. This could be due to the students' positive attitudes towards mobile app as it helps them learn something new every time, they attempt to play Quizizz.

I retain information and knowledge better through the use of mobile app games.

Table 1
The result above shows the students response before they were exposed to Quizizz

Strongly Disagree	Disagree	Somewhat Agree	Agree	Strongly Agree
0	0	9	26	21

Table 2
The result above shows the students response after they were exposed to Quizizz

Strongly Disagree	Disagree	Somewhat Agree	Agree	Strongly Agree
0	0	4	30	22

Being able to retain information better by using mobile app games or Quizizz specifically will only happen if a student is positive in his or her learning. A positive attitude will allow a learner to learn more and better through the use of any mobile app. Retaining a learnt knowledge could hardly happen if a student possesses a negative attitude through the entire process of learning. The tables above show positive attitudes of the undergraduate students as they have all agreed with the statement. Before the students were exposed to Quizizz, there were 16.1% of them somewhat agreed with the statement however their response changed after the exposure to Quizizz where they were only 7% who remained with the same response. This shows a significant change in the students' response before and after they played the Quizizz game. This could mean, the students may have learnt new information by attempting the games.

I can understand a particular topic easily with the use of mobile app games.

Table 1
The result above shows the students response before they were exposed to Quizizz

Strongly Disagree	Disagree	Somewhat Agree	Agree	Strongly Agree
0	0	4	33	19

Table 2
The result above shows the students response after they were exposed to Quizizz

Strongly Disagree	Disagree	Somewhat Agree	Agree	Strongly Agree
2	0	4	24	26

This part of the questionnaire focuses on how mobile app games a student understands a particular topic better or deeper. Before the Quizizz exposure, there were 7.1% of students somewhat agree, 58.9% agreed to the statement and 34% strongly agreed to the statement. This shows the students were positive that mobile app games somehow help them to know about a topic more or helps them ease their understanding better. However, there was a slight

difference in students' response after they were exposed to the Quizizz, where 3.6% strongly disagreed with the statement. This may happen due to the students' unable to answer the question. The questions on Quizizz were focusing on the topic named 'Language and the Brain' where the students told to prepare for their quiz earlier. Besides, on the positive note, there were 42.9% of them who still agreed to the statement and a slight change in the students' response on the strongly agreed part where it increased to 46.4% from 34% earlier.
I can recall important points of chosen topics accurately with the use of mobile app games.

Table 1
The result above shows the students response before they were exposed to Quizizz

Strongly Disagree	Disagree	Somewhat Agree	Agree	Strongly Agree
0	0	6	31	19

Table 2
The result above shows the students response after they were exposed to Quizizz

Strongly Disagree	Disagree	Somewhat Agree	Agree	Strongly Agree
0	0	4	28	24

This question focuses on the important point that it helps the students to remember when they are engaged in the game. The finding shows a significant change in students' response when they were only 33.9% chose strongly agreed earlier but eventually, the result increased to 42.9% after the students were engaged in Quizizz. As Yudi and Yeni (2019) mentioned in their recent research Quizizz, mobile app games help students appertain to quiz appreciation, learning effort, learning motivation, activities involvement and academic achievement which shows the students are always benefiting from mobile app games in discovering new information. This could be the reason why the change between the students in agreeing on this statement from 10.7% has dropped to 7.1% as well.
I could reflect my errors after answering the mobile app games.

Table 1
The result above shows the students response before they were exposed to Quizizz

Strongly Disagree	Disagree	Somewhat Agree	Agree	Strongly Agree
0	1	6	30	19

Table 2
The result above shows the students response after they were exposed to Quizizz

Strongly Disagree	Disagree	Somewhat Agree	Agree	Strongly Agree
0	2	6	12	36

The fifth question of this part of the questionnaire focuses on the student's ability to reflect on the mistakes that they've made through mobile app games. The finding shows previously there were only 19 or 40% of them who strongly agreed to this statement but after the students did their task in Quizizz, their result shows a significant difference as they were 36 or 64.3% agreed to this statement. This is more half of the class students who strongly agreed to this statement where Quizizz does allow them to reflect on their errors. Quizizz accommodates a feature where it immediately will point out the right answer on the upon finishing all the question. This feature would allow students to know what and where are the mistakes they've made during their quiz. This is an important feature that would help learners to know their mistakes and it will eventually allow them to learn from their mistake as well.

Attitudes towards Using Mobile App Games

This part of the questionnaire focuses closely on the students' attitudes in involving mobile games;

Findings

I could pay more attention when using mobile games as compared to normal lessons.

Table 1

The result above shows the students response before they were exposed to Quizizz

Strongly Disagree	Disagree	Somewhat Agree	Agree	Strongly Agree
1	2	12	17	24

Table 2

The result above shows the students response after they were exposed to Quizizz

Strongly Disagree	Disagree	Somewhat Agree	Agree	Strongly Agree
0	5	10	13	28

This part of the question focuses on the students' attitudes on which they would prefer the most as in traditional lessons or mobile learning. The findings show that earlier there were 43% of the students who strongly agreed on this statement where they prefer learning lesson which incorporates mobile phones. 21.4% of the students preferred both as they did not strongly or disagreed, but they've somewhat agreed with this statement. After the exposure to Quizizz, there were few significant changes where 50% of the students strongly agreed with learning which incorporates quizzes in mobile phones rather than the normal traditional method of learning. At the same time, there were 5 of them or 8.9% of the class who disagreed with this statement, to researchers' beliefs it could mean some of the students were from the rural area this could reflect back to how they've learnt in their schools.

I find the colours of the layout are attractive.

Table 1
The result above shows the students response before they were exposed to Quizizz

Strongly Disagree	Disagree	Somewhat Agree	Agree	Strongly Agree
0	0	4	20	32

Table 2
The result above shows the students response after they were exposed to Quizizz

Strongly Disagree	Disagree	Somewhat Agree	Agree	Strongly Agree
0	0	3	19	34

This question focuses on the layout of the mobile app games where it includes many colourful backgrounds. The findings show that the students have all agreed to this statement even before they were exposed to Quizizz environment. The significant changes that could be identified from the findings is that from 57.1% the students strongly agreeing to this statement rose to 60.7% after they were told to use Quizizz. As Vincent (2015) says Quizizz has one of many awesome tools for quiz games and colourful layouts are one of them.

I feel a sense of competition when my scores are being displayed on the leader board.

Strongly Disagree	Disagree	Somewhat Agree	Agree	Strongly Agree
1	0	7	17	31

Table 1
The result above shows the students response before they were exposed to Quizizz

Strongly Disagree	Disagree	Somewhat Agree	Agree	Strongly Agree
2	2	7	17	28

(Table 2: The result above shows the students response after they were exposed to Quizizz)
The leader board in every mobile game tend to show the students overall performance to acknowledge their progress in answering the question. Quizizz mobile app game has a feature of showing the students overall performance in leader boards. The findings show that 55.4% strongly agreed that leader board do bring a sense of competition and 12.5% agreed with this statement with only 12.5% who partially agree with this statement. However, there's a slight difference in students' response after they were exposed to the Quizizz where only 50% strongly agreed, 30.4% agrees and 3.6% of them disagreed with this statement. Overall, the response has dropped after using Quizizz as they have the mentality that it doesn't bring any

sense competition among peers, this could happen when the lecturer allowed the students to discuss their answer with their group members.
I prefer True-False questions than multiple choice questions in mobile app games.

Table 1
The result above shows the students response before they were exposed to Quizizz

Strongly Disagree	Disagree	Somewhat Agree	Agree	Strongly Agree
1	7	18	17	13

Table 2
The result above shows the students response after they were exposed to Quizizz

Strongly Disagree	Disagree	Somewhat Agree	Agree	Strongly Agree
6	9	19	12	10

This part of the question focuses on students' preference for the type of questions. There are many types of questions that will be asked in mobile app games and the multiple-choice question is one of the most common types of question. There were only slight changes in the students' responses as there were 33.9% partially agreed, 21.4% agreed and 17.9% strongly agreed with the statement. Compared to the students' response before Quizizz's game there were only less than 5% changes occurred. This mainly could happen when students find no difference between true-false questions and multiple-choice questions because both requires reading and concentrations.

Interview Findings
Online games or manual answering through paper?
The participants were asked on which they would prefer the most in answering questions.
"I always prefer using my phone compared to anything else"

"Online games la of course…it's easier for all of us"

"I prefer online games more than paper answering."

"I think it is safe to use a mobile phone answering coz it is easier."

"Ohhhh.. I'm very concerned about the environment, so I would want to save the trees so online games it is."

"I personally prefer manual answering through paper…. This is not because I don't like mobile games, is just u know…I'm used to pen and paper…"

"I would prefer both, I'm neutral haha…. I don't favour any or dislike any either"

Conclusion

Information Communication Technology (ICT) in mobile learning especially in mobile games has a pivotal role in today's education system all over the world. The 21st century solely based on ICT and this develops many skills in students handling technology and this also prepares them for their future undertakings. Incorporating Quizizz as the inclusion of ICT or web-apps in the students daily online quizzes brings an overwhelming efficacy. This study showed how students perceive mobile app game Quizizz as one of the most engaging tools in the classroom and also as a learning process where they could simply learn by making mistakes. The competition among the students has eventually shown as the healthy competition as they are ready to see their scores on leader boards. Quizizz is one of the well-known mobile apps not only help the students on their learning but also helps them to overcome their anxiety when they were asked to answer within the time limit provided.

This research offers valuable insights into the perceptions of undergraduate students regarding the Quizizz mobile app, contributing to the broader discourse on gamified learning in higher education. By exploring students' experiences and attitudes toward this app, the study provides practical recommendations for educators and app developers aiming to enhance the effectiveness of gamified learning tools in promoting active and engaging learning environments.

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