EFFECTS OF USING QUIZIZZ FOR GAME - BASED FORMATIVE ASSESSMENT IN EFL CLASSES ON STUDENTS' ENGAGEMENT

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Abstract: This study aims to investigate the effects of applying Quizizz into formative assessment on EFL high school students' engagement in the assessment activities. The study adopts a mixed-methods approach in data collection and analysis on a sample of 70 students from Quoc Hoc high school. The data collection instruments are classroom observation, questionnaire and interview. The data was analyzed using SPSS Statistics software for the questionnaire responses and thematic analysis for classroom observation fieldnotes and interview responses. The results of the study showed that students' engagement was positively influenced by the use of Quizizz for formative assessment purposes in the classroom. Students also agreed that Quizizz brought more fun and enjoyment to the class during the assessment sessions, hence, making them feel motivated to try harder in their learning.

Key word: EFL student, formative assessment, Quizizz, students' engagement, students' perception

1. Introduction

One of the important components in education that support the successful teaching-learning process is assessment. It is admittedly a source of data which will be utilized by teachers to reflect on their teaching process, as well as their students' learning process to help the students achieve their learning goals (Muhammad et al., 2020). Besides, in this digital era, technology is another component that is indispensable in education. One way that technology can be a considerable source of support in teaching and learning is by improving the ability to offer formative assessment of the learners' skills and knowledge during teaching and instructional process (Ismail et al., 2018). Providing immediate feedback during the formative assessment process, with the aim of improving students' performance, is crucial in learning and teaching. Teachers can take advantage of the integration of technology and assessment to get detailed information of students' progress and make adjustments accordingly to improve their teaching process.

Undoubtedly, the integration of technology in classrooms has become a necessity for effective teaching that improves learning, especially in the 21st century, where the road to motivate and encourage students to learn is paved with their passion for technology and digital tools. With the advent of technology and its role in education, a wide body of research has developed in investigating the role of technological instructions in the educational process and their effect in improving the interactive education environment (Ali & Elmahdi, 2001; Baylor & Ritchie, 2002; Caldwell, 2007; Damick, 2015; Irving, 2015) (Irving, 2015). A number of these studies have provided evidence of the significant contribution that technology makes to improve the methods of teaching, learning and assessment, which positively impacts students'

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knowledge and skills.

Quizizz, one of the most commonly used online-based learning applications, is utilized by educators to form online quizzes with the hope of bringing more interaction, engagement and motivation to the students while learning English (Basuki & Hidayati, 2019). It can be utilized for the beginner level of elementary to college students. Through this application, students can participate in interactive classroom activities using their mobile devices to enhance their learning experience (Zuhriyah & Pratolo, 2020). Quizizz is accessible on all devices such as computers, smartphones and tablets, simply by going on quizizz.com. It is a game-based educational app, which brings multiplayer activities to classrooms and makes in-class exercises interactive and fun (Zhao, 2019). Unlike other educational apps, Quizizz has game characteristics like avatars, themes, and music, which are entertaining in the learning process. Quizizz also allows students to compete with each other and motivates them to study (Muhammad et al., 2020). Students take the quiz at the same time in class and see their live ranking on the leader-board. Instructors can monitor the process and download the report when the quiz is finished to evaluate students' performance. Using this app in the English classrooms can help stimulate students' interest and improve students' engagement (Suo & Zalika, 2018).

As an English teacher in this digital age, I am fully aware of the significance and benefits of incorporating such online-based learning applications into English classrooms as a formative assessment instrument to motivate students and improve their engagement. The e-learning model is an innovation to facilitate students in improving their learning abilities as it helps to increase students' engagement in the lesson, as well as the interaction among the students while reviewing the lessons. What's more, during the time of the pandemic, distance learning kept taking the place of traditional classes, which, as a result, largely discouraged students from studying. From my perspective, game-based learning applications in general, or Quizizz in particular, are the key to bringing some fun, interactive and engaging English lessons to students.

Creating a learning environment through a game-based approach is not a very new concept, yet most previous studies looked into the effectiveness of using Quizizz as game-based learning (Amalia, 2020; Jannah et al., 2020; Munawir & Hasbi, 2021; Suo & Zalika, 2018; Wibawa, 2019; Zuhriyah & Pratolo, 2020). Here, this study aims to gain insights into how Quizizz affects the students' engagement in class when used as an alternative assessment method in English as a Foreign Language (EFL) classrooms. From there, the study will draw some necessary conclusions on the use of this Quizizz application for teachers to optimize their process of teaching as well as students' learning. Besides, it is anticipated that this research, with its useful information and implications, would open up a new horizon in this field.

The study will look into any possible changes in high school students' engagement patterns and levels in class when teachers use Quizizz to check their learning progress. After those aspects have been carefully investigated, further suggestions will be put forward in order to help teachers and students make more effective use of the application and ultimately enhance the teaching and learning process overall. In particular, this study is carried out with a view to finding the answers to the following research question:

How is EFL students' engagement affected by the use of Quizizz as a game-based

assessment tool in the classroom?

2. Literature review

2.1. Formative assessment

Assessment is a basic component of effective learning and teaching (Bransford, 2000). According to Brookhart (2012), assessment is a process or activity of gathering, analyzing, and interpreting information concerning the process and student learning outcomes in achieving learning objectives. Formative assessment (FA) is known as evaluating the process of developing students' competencies and skills in the form of aid to enhance students' growth and progress of learning (Brown, 2004). Popham (2011, p. 270) defines formative assessment as "a planned process in which assessment-elicited evidence of a student's status is used by teachers to adjust their ongoing instructional procedure or by students to adjust their current learning tactics". Effective teachers in every corner of the world strive to engage their students in the formative assessment process to gauge understanding and correct misconceptions by utilizing multiple techniques such as diagnostic tests, startup activities, exit cards, pop quizzes, group discussion, think-pair-share, etc. Teachers also equally benefit from applying formative assessment techniques as they provide teachers with the opportunity to assess their teaching effectiveness and, accordingly, adjust and modify their teaching activities.

2.2. Quizizz

Quizizz is an excellent online assessment tool that allows students to review their knowledge and learning progress (Bury, 2017). It is a formative testing tool that is suitable for getting information about the overall condition of the class in understanding the content of the materials being taught. With its user-friendly interface, Quizizz can help teachers assess their students' language learning skills as well as their curricular skills (Bury, 2017). The website supplies hundreds of quizzes that we can use or create ourselves. It is well-suited to be used as a formative assessment tool as teachers can download the test report and evaluate students' performance after running Quizizz (Zhao, 2019). Quizizz is also known as a game-based learning tool that can contribute to students' concentration, participation, engagement, happiness, motivation and student satisfaction (Chaiyo, 2017). It is an online assessment tool that can help students not only check their knowledge and abilities but also see their progress in learning English (Rahayu, 2018).

2.3. Students' engagement

Engagement is defined as "how involved or interested students appear to be in their learning and how connected they are to their classes, their institutions, and each other" (Axelson & Flick, 2010, p. 38). It is a critical factor in learning with game-based activities and it provides students with enhanced learning experience to achieve good grades (Amriani et al., 2013). In the present study, engagement is divided into three main types, namely behavioural, affective, and cognitive (Fredricks, 2004).

Affective Engagement: Scholars have variously identified affective engagement as emotional engagement, motivational engagement, or psychological engagement. However, all of these terms refer to the same features of affective engagement, which describes students' positive and negative emotional reactions toward teachers, classmates, academic works, and

school in general (Fredricks et al., 2004). It includes indicators such as the presence of interest and happiness and the lack of boredom, anxiety, and sadness.

Behavioural Engagement: According to Fredricks et al. (2004), three ways are commonly utilised in defining behavioural engagement, which Rumberger (2004) found to be a crucial factor in mediating the dropout process. The first way involves positive conduct, such as adhering to the norms of the classroom, following the rules, and refraining from engaging in disruptive behaviours (e.g., being troublesome or skipping school) (Fredricks, 2004). The second way pertains to participation in learning and academic-related tasks, and involves behaviours such as discussion contribution, asking questions, paying attention, concentrating, exhibiting persistence, and putting forth effort (Fredricks et al., 2004). The third way is the involvement in activities related to school that include, for example, school governance and sports (Fredricks et al., 2004).

Cognitive Engagement: The cognitive engagement dimension refers to students' investment in learning, and involves aspects such as willingness and thoughtfulness to expend the effort required to understand and master difficult tasks, the use of appropriate learning strategies (e.g., students' use of elaboration rather than memorisation), challenge preference, and self- regulation (Fredricks et al., 2004). Indicators of cognitive engagement include asking questions for clarification of ideas, persistence in difficult activities, flexibility in problem solving, use of learning strategies (e.g., relating new information to existing information), and use of self- regulation to support learning (Fredricks et al., 2004).

2.4. Previous studies

In recent years, researchers have observed Quizizz in their studies to see how this digital tool influences students' engagement in a language learning classroom. When educators integrate Quizizz into education, it seems that learners are engaged and participate in the lessons more actively (Munawir & Hasbi, 2021). One study by Suo and Zalika (2018) investigated how effective it was to get the students' interest for Arabic class by implementing Quizizz as a game- based learning tool in the Arabic classroom of Sultan Idris Education University Malaysia. The results showed that all students were very active in answering the questions provided by the researchers on Quizizz, and they concentrated more on the topic compared to before Quizizz was applied in the lesson. The overall results also showed that the students expressed positive attitudes towards Quizizz being used as an online teaching and assessment tool in Arabic classes. Wibawa (2019) conducted research to examine the Quizizz application and its contribution to students' learning process. Descriptive qualitative method was employed in the research, and a case study approach was utilized. The result of the study indicated that Quizizz makes learners eager to involve in the learning process actively. Another research by Munawir and Hasbi (2021) applied a one-shot case study on explanatory quantitative research design to examine the effectiveness of using Quizizz on student engagement and learning outcomes in the EFL classroom at the English Education Department in Universitas Sulawesi Barat. The findings revealed that using Quizizz changed students' behavioral engagement in-class regarding students' on-task attention, lesson involvements and students' efforts on learning English. Besides, the survey found that students listened to the lessons and materials more carefully, tried to understand the materials while learning and, more

interestingly, they paid more attention to what the teacher talked about on a new topic.

There are numerous other studies about the use of Quizizz from teachers' and students' perspectives in English language learning and teaching. Amalia (2020) aimed to examine the EFL students' perspectives towards Quizizz as an online assessment tool. This descriptive qualitative study used purposive sampling with 20 students who were taking the Dynamic English Course, and the students were asked to complete the questionnaire including 10 questions. The Likert Scale rating from 1 to 5 (Strongly Disagree (1), Disagree (2), Neutral (3), Agree (4), Strongly Agree (5)) was applied in data analysis. The results of the study demonstrated that the students had positive perspectives towards the use of Quizizz as an online assessment instrument and the students stated that when compared to the traditional tests, Quizizz was better. There was another study by Zuhriyah and Pratolo (2020) that explored students' views on the use of Quizizz as an assessment tool. This research employed a case study approach, and a semi-structured interview was utilized to gather the data. The results revealed that some of the students' views regarding the use of Quizizz were: (1) an interesting tool, (2) encouraging students' confidence, (3) increasing students' motivation, and (4) improving reading ability. Jannah et al. (2020) conducted a study to find out the EFL high school students' perceptions of using Quizizz to do online English tests. A 12-statement questionnaire was administered to 212 students, and the students responded to each statement by using Likert scale from 1 to 5 (Strongly Disagree (1), Disagree (2), Neutral (3), Agree (4), Strongly Agree (5)). The results of the study showed that students had positive perceptions towards doing online English test on Quizizz. These positive perceptions came from the fact that students enjoyed doing online assessment on Quizizz because the features available on Quizizz were like gaming. Other reasons were that online assessment carried out on Quizizz was more effective and time-saving than the traditional method because the students could do their tests anywhere and at any time, not only in the classroom.

Most of the previous research focused on the effectiveness or student's perceptions of using Quizziz as a game-based learning tool. The number of studies on the implementation of Quizziz as an assessment tool, or particularly formative assessment tool, is still limited. Although the one carried out by Zuhriyah and Pratolo (2020) looked into Quizizz as an assessment instrument, the research was conducted at a higher education level, at a private university in Yogyakarta. The study from Jannah et al. (2020) investigating the use of Quizizz was carried out in high school context, yet the high school was based in Indonesia and the tool was only applied online, outside of class. Therefore, in this research, the focus is mainly on examining the use of Quizizz as a formative assessment instrument in EFL classrooms in high school in Vietnam. Specifically, this study is carried out in the context of Hue city in Vietnam, with the purpose of looking into how EFL high school students' learning engagement is affected by the use of Quizizz in the classroom and the students' perceptions of using this game-based online tool as a formative assessment tool in EFL classes.

3. Methodology

3.1. Research design

The research adopted a mixed methods approach in data collection and analyses, with a combination of qualitative and quantitative research instruments, including classroom

observation, questionnaire, and interview. The use of both quantitative and qualitative methods assisted the researcher to see the research matters from different angles, so that a deeper understanding of the topic could be obtained. Besides, according to Allwright and Bailey (1991), the data obtained through different methods also increases the reliability of the findings.

3.2. Participants

The participants for the study are 70 high school students, including 20 tenth graders and 50 eleventh graders. These students come from three classes, one Japanese class (10th grade), one History-Geography class and one Physics class (11th grade).

Table 1. Participants' Background Information

Grade	Number of students	Ages	Years of learning English
10th grade	20 (5 Males-15 Females)	15-16	7-10
11th grade	50 (22 Males – 28 Females)	16-17	8-11

Classroom observations were conducted in these three classes, including one grade 10 class and two grade 11 classes as mentioned above. After experimenting with Quizizz in class, the 70 students were given two questionnaires to fill in (70 copies for each questionnaire). Finally, from the 70 students who completed the questionnaires, the researcher randomly chose nine students to take part in a follow-up interview. The interviews were conducted face-to-face in class and were recorded for further analysis, under the agreement of the interviewees.

3.3. Research Instruments

Classroom Observation: In this research, the type of observation conducted was non-participant observation, in which the observer did not participate in classroom activities but only organized the activities and then watched, recorded and took notes of how everything went in the classroom. An Observation Form (See Appendix 1) was developed based on the research question and the items in the questionnaire. Six classroom observations were carried out in total, two in each class, in an attempt to investigate how engaged the students were in the formative tests done on Quizizz in the form of games and competition.

Questionnaire: An Engagement Questionnaire (See Appendix 2) consisting of 30 statements, both positive and negative, pertaining to the practice of doing formative tests on paper and on Quizizz was administered to the participants. The Engagement Questionnaire was adapted from Reeve and Tseng's (2011) model with Agentic Engagement and Ben-Eliyahu et al.'s (2018) Three-Dimensional Framework (Ben-Eliyahu, 2018; Reeve, 2011). The statements were rated on a five-point Likert scale ranging from 1 to 5 (Strongly Disagree (SD), Disagree (D), Neutral (N), Agree (A), and Strongly Agree (SA)). The 30 statements in this questionnaire were divided into 3 main clusters, each of which consisted of a number of questionnaire items (See Table 2).

Table 2. Main Clusters in the Questionnaire

Cluster	Questionnaire items
Affective engagement	1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17, 18
Behavioural engagement	19, 20, 21, 22, 23, 24, 25
Cognitive engagement	26, 27, 28, 29, 30

Interview: A semi-structured interview was applied in this research and was conducted

face-to-face in the classroom in order to provide richer and more profound data. There were eight questions in total in the Interview Sheet that the researcher had prepared beforehand based on the research question as well as the Engagement Questionnaire. Some side questions could be added if they came up during the time of the interview. The participants could choose to give their answers in Vietnamese so that they could convey their emotions and thoughts most effectively and comfortably.

3.4. Procedure of the study

Classroom Observation: Totally six sessions of classroom observation were held in three classes (both 10ᵗʰ and 11ᵗʰ grade) in Quoc Hoc high school, which means two sessions in each class. One session was for vocabulary check, and one was for grammar check. These sessions were incorporated into the end of the *Looking back* section of the units: Unit 8 of Tieng Anh 10 Volume 2 for 10ᵗʰ grade students (specialized in Japanese) and Unit 10 of Tieng Anh 11 Volume 2 for 11ᵗʰ grade students (specialized in History-Geography and Physics). The purpose of these Quizizz sessions was to check the students' understanding of the vocabulary and grammar points they learnt in those two units. While the students practiced with Quizizz, the researcher observed the class and took notes on the Observation Form.

Questionnaire: After the classroom observations were carried out, seventy copies of Engagement Questionnaire were delivered to the students from all of the three participating classes in Quoc Hoc high school. The researcher assured that all the personal information collected would be kept confidential and used for the research purposes only. All the questionnaires were completed and returned to the researcher.

Interview: Among the seventy aforementioned participants, the researcher invited randomly nine students, three from each class, to take part in the interviews. In each interview, there were three interviewees, who were three students from the same class, and the researcher gave eight questions included in the Interview Sheet to them, one question after another. The three students took turns to give their answers; when one question was fully covered, the whole group moved to the next one. Besides those eight questions, the researcher could give some side questions that came up during the time of interview, and the students could provide some more opinions on their side. The participants could choose to give their answers in Vietnamese so that they could convey their emotions and thoughts comfortably. Each interview was about 10 to 15 minutes long and was recorded for further analysis later on, with the agreement of the interviewees. The students' engagement, interests, and perceptions towards the use of Quizizz were discussed more in-depth and students could also give further recommendations for better usage of Quizizz for formative assessment.

3.5. Data collection and analysis

As this study had the concurrent triangulation design, it included a concurrent form of analysis (Creswell and Clark, 2007), starting with a separate initial data analysis for each of the qualitative and the quantitative databases. In a subsequent stage, the researcher merged the two datasets so that "a complete picture is developed from both data sets" (Creswell & Clark, 2007, p. 136).

Classroom observation: The information obtained from classroom observation sessions

was carefully analyzed to indicate some necessary conclusions. The notes from observation forms were subjected to thematic analysis on the grounds of the research questions. Parts of the notes were then quoted to give an insightful description of the issues under study.

Questionnaire: The results from questionnaires were entered and calculated by SPSS software to yield the distribution of students' responses for each questionnaire item in the form of percentages. Also, descriptive statistics with mean and standard deviations of Likert-scale items were calculated. The quantitative results are presented in tables and charts to facilitate visual demonstrations.

Interview: The interviews were transcribed and translated into English, if done in Vietnamese, by the researcher – a practice encouraged by Kvale and Brinkmann (2009) for easy reference and analysis. All the transcripts of interviews were subjected to thematic analysis on the grounds of the research questions. The data were then quoted to give an insightful description of the issues under study.

After being analyzed separately, the quantitative and qualitative results were compared and synthesized to reflect how the students' engagement was affected by the application of Quizizz and what their perceptions were towards the use of this game-based assessment tool in the classroom. This is a practice that Creswell and Clark (2011) called merging the two databases and it is typically done in the concurrent mixed methods design.

4. Findings

4.1. Students' perceived levels of affective engagement

It was evident during the classroom observation session that the students looked excited and really looked forward to doing the test when the teacher announced to the class that they would do their progress tests on Quizizz, where the questions would be given in the form of games and competition. Also, at the beginning of the assessment activity on Quizizz, the students excitedly chose their usernames and some of them came up with such interesting names, as shown in Figure 1.

Figure 1. Students' Usernames on Quizizz

The results from the Engagement Questionnaire indicated that the EFL participants showed much greater interest when they did the tests on Quizizz, compared to the traditional way of pen and paper.
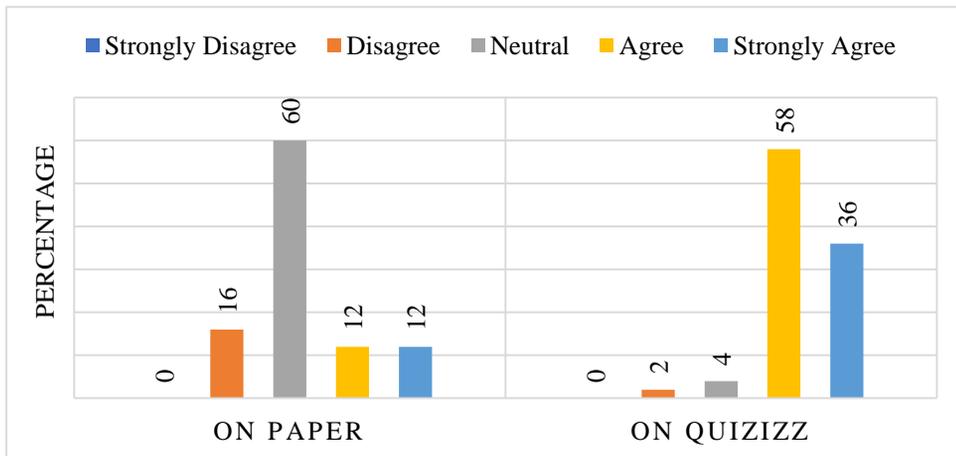

Figure 2. Methods of Doing Formative Tests Arousing Students' Interests

From Figure 2, it is clear that more than half of the students investigated chose Neutral when asked about their interests in doing formative tests on paper, and only a quarter of them agreed and strongly agreed that this method aroused interests in them. On the other hand, when the students were asked about their interests in Quizizz, the percentage of students choosing Disagree and Neutral is significantly low, only 2% and 4 % respectively, and the rest fall into the categories of Agree and Strongly Agree, with the latter one accounting for up to 36%. This figure is three times higher than the percentage of students doing their tests on paper. Besides, one of the students who entered the interview shared his point of view: "*The last time I experienced Quizizz was a few days ago but I still remember all the excitement I had when I got a correct answer on the test, which rarely happens on paper. I must say Quizizz is quite good at keeping my interest…*". This is quite a positive outcome because it is a sign that teachers can apply Quizizz into the formative tests to raise the students' interests and enjoyment in the classroom.

4.2. Students' perceived levels of behavioral engagement

Behavioural engagement was shown quite clearly during the observation sessions in the classroom, which took place before any other data collection methods. During these observation sessions, the students expressed themselves freely through gestures like clapping hands or giving each other high-fives whenever they chose the correct answers. At times when they got the wrong answers, a lot of discussion would follow, and they really tried to figure out why the answer was incorrect, and which one would be the correct answer after all. Some of the students even raised their hands to talk to the teacher and asked for a chance to start the game all over again, so they could do the test better.

Furthermore, this level of initiative is also illustrated in the results of the Engagement Questionnaire.
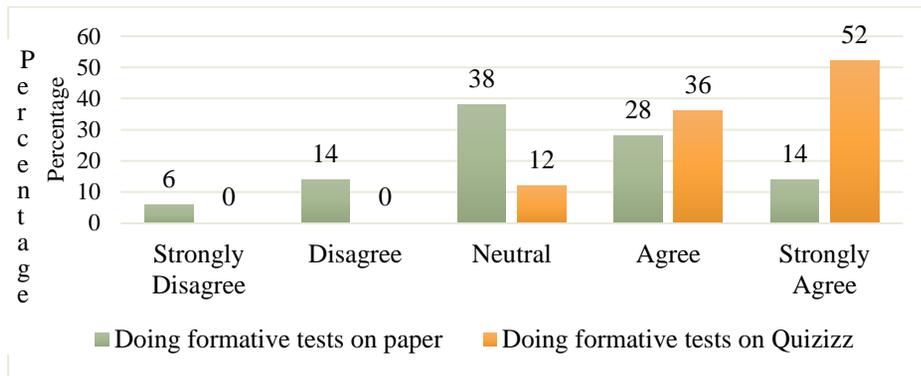
Figure 3. Students being Encouraged to Participate More Actively in the Assessment Activity

As can be seen from Figure 3, the numbers of students who both agree and strongly agreed that carrying out formative tests on Quizizz encourages students to participate more actively in the assessment activity are higher than the numbers of those who agreed and strongly agreed with the opinion that the traditional way of doing progress tests brings encouragement to the learners. Besides, there were around 20% of the students in total who disagreed and strongly disagreed with the opinion that doing progress tests on paper helps boost students' active participation in the assessment activity, while none of the students disagreed or strongly disagreed with the similar opinion when the teacher used Quizizz as an assessment method instead. Through this chart, we can assume that Quizizz plays an important role in motivating students to participate in assessment activities more actively, which hopefully will lead to more effective learning afterwards.

One student responded in the interview: *"Doing tests on paper is a bit dull, as this happens so often in the class, and there is nothing new to those progress tests. Besides, there are a lot of words on the paper tests, so it can make the students feel sleepy sometimes. On the contrary, with Quizizz, we have lots of game-like challenges, and also competitions to spice up the testing time."* Indeed, the competition aspect of Quizizz seemed to push the students harder on the tests, encouraging them to emerge themselves in the tests and complete them more carefully for better results after each test.

4.3. Students' perceived levels of cognitive engagement

A striking difference between the effects that each method of carrying out formative assessment had on students' cognitive engagement in class will be seen in Table 3.

Table 3. EFL Students' Cognitive Engagement Levels

	Min	Max	Mean	SD
Doing formative tests on paper helps me… Q26.P. remember the lessons longer	2	5	4.02	0.86
Q27.P. understand the lessons better	1	5	3.48	1.01
Q29.P. recognize the correct and incorrect answers faster	1	5	3.10	0.95
Q30.P. revise learnt lessons more effectively	1	5	3.76	0.93
Doing formative tests on Quizizz helps me... Q26.Q. remember the lessons longer	3	5	4.34	0.71
Q27.Q. understand the lessons better	2	5	3.96	0.80
Q29.Q. recognize the correct and incorrect answers faster	3	5	4.42	0.73
Q30.Q. revise learnt lessons more effectively	1	5	4.28	0.85

As can be seen in Table 3, the mean scores for the statements in the paper test group fall into the moderate category, ranging from 3.10 to 4.02, while the mean scores for the similar statements in Quizizz group fall into the higher category, with the lowest score already being 3.96 and the highest up to 4.42. These figures show that students mostly voted for Agree and Strongly Agree when they were asked about the effects that Quizizz had on students' cognitive engagement in the classroom. Moreover, in statement number 26 and 29 in the Quizizz group, the minimum score rated is 3, which means no one disagreed or strongly disagreed with these two statements.

One respondent in the interview said: *"Quizizz does affect the level of understanding and remembering the knowledge from the lessons. I feel like I can do tests better on Quizizz than on paper because with the form of games, I am trained to have good reflexes. The time limit for each question on Quizizz is shorter than on paper tests, and that pushes me to learn to process the questions faster and think faster when choosing the answers."* (S6) Another participant also added to that response: *"More importantly, there is a leaderboard on Quizizz after every test we take, and we always want to be on the highest position. This means that the competitiveness is high, and it highly encourages us to be quicker in our thought process between the correct and incorrect answers."* This, again, confirms that EFL students' cognitive engagement levels were positively influenced by the use of Quizizz for formative assessment in class.

5. Discussion

Overall, Quizizz had a positive influence on students' engagement in all three dimensions, namely affective, behavioural and cognitive, in EFL classes.

First of all, the level of affective engagement of EFL students was quite high when the teacher carried out formative assessment on Quizizz in the classroom. The emotions that the students expressed during classroom observations as well as the feelings that the students claimed they had in the questionnaires and interviews were mostly being interested, happy and excited. These emotions were remarkably different from when the students did formative tests on paper. Specifically, while the students were more likely to feel tired and pressured doing progress tests the traditional way, they felt more excited and engaged when the whole assessment process was done on Quizizz. They were excited to choose the usernames for themselves at the beginning of the game and were happy when they got the correct answers or a good result after the game. This positive outcome suggests that teachers can apply Quizizz into the formative tests to raise the students' interests and enjoyment in the classroom.

Concerning behavioural engagement, the results show that the students were highly active in participating in the assessment activities on Quizizz. This is similar to the findings in Wibawa's (2019) research, where teachers responded in their interview that the learners felt eager to involve in the learning process actively when Quizizz was applied in the lesson. Indeed, the students were not only active in participating the game by discussing the correct and incorrect answers, but they also felt encouraged and motivated to do better on the next test. One of the reasons for this is because Quizizz had a leaderboard that checked how well the students did on the progress tests. This competitiveness in the game truly encouraged the students to make effort to understand the lessons better by paying more attention in class and

learning from the mistakes they previously made in the game. This finding is in agreement with the results drawn from Meng et al.'s (2019) study. The competitive and engaging elements of Quizizz really motivated the participants and they showed positive progress throughout the one-month period of experiment.

As for the cognitive engagement, as has been mentioned in the previous paragraph about behavioural engagement, students were greatly active in taking part in the assessment activities, especially raising questions whenever they had problems understanding a certain part of the lesson. This action of asking questions for clarification is one clear indicator of cognitive engagement in the classroom. Furthermore, this tendency to seek explanations for unclear answers resulted in the students recognizing the correct and incorrect answers faster, as well as understanding the lessons better and longer. Some participants shared the similar feedback in the interviews that the game on Quizizz encouraged them to be quicker in the thought process to know which would be the correct and incorrect answer. This, again, confirms that EFL students' cognitive engagement levels were positively influenced by the use of Quizizz for formative assessment in class.

6. Conclusion

In general, the application of Quizizz into formative assessments in EFL classes has positive impacts on students' engagement, whether it be affective engagement, behavioural engagement, or cognitive engagement.

Regarding affective engagement, Quizizz arouses a lot of interest and enjoyment in the students during the assessment sessions. First of all, the students are more relaxed, comfortable and more interested in the assessment activity when they do the formative tests on Quizizz than when they do such tests on the traditional paper. This can be attributed to the nature of game playing and also the feeling of competing against each other in the classroom throughout the game. Secondly, the students expressed happiness and excitement when they got good results in the game, either on each question or at the end of the whole assessment session. In fact, when they have one correct answer, they will feel more motivated and confident to move on to the next one.

As for behavioural engagement, carrying out formative assessment on Quizizz gives students the freedom to express themselves more, either with facial expressions or gestures, and to discuss with their friends more about the tests. The students seem to smile a lot and enthusiastically participate in the progress check acitivity when they do it on Quizizz. Besides, they have the tendency to discuss the correct and incorrect answers with their friends on the spot, so that they can know where they have made mistakes and improve that in the next question or with the next assessment session on Quizizz. In other words, Quizizz has encouraged the students to be more active and engaged in the assessment activity, not just for the sake of completing the tests and checking their learning progress, but actually learning and improving after each progress test they finish.

Finally, EFL students' cognitive engagement is also positively influenced by the use of Quizizz in the classroom for assessment purposes. The students feel more encouraged and motivated to ask for clarification about the things they still have difficulties understanding

when they complete formative tests on Quizizz than on paper. They feel the urge to know right away why they are wrong, and even why they are right on each question. This, according to them, can help them recognize the correct and incorrect answers faster, and eventually do better on later tests. As a result, the students feel that they can understand and remember the knowledge from the previous lessons much more effectively.

7. Recommendation

Even though this study came up with some valuable results, it still has certain limitations that need to be taken into consideration. The first shortcoming is about the use of Quizizz for the research. The time limit for each question on Quizizz and the types of questions were not used variously and flexibly throughout the study conducted, so the use of this online assessment tool was not examined to its full potential. Hence, it is recommended for further studies that the time limit for each question and the types of questions on Quizizz should be used more flexibly for better results, depending on the lessons, the nature of the assessment activity, or its purposes.

Besides, the scope of the research was limited to only seventy high school students in Quoc Hoc high school. Therefore, it is difficult to generalize or apply the research findings to other high schools' contexts in Hue City, where the teaching and learning environments, students' proficiency levels, as well as a number of other factors are different. In order to be more reliable and accurate, the data of the further studies in the field should be collected on a larger scale, not only within Quoc Hoc but also in other high schools, both in the city center but also in rural areas.

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KHẢO SÁT MỨC ĐỘ THAM GIA CỦA HỌC SINH VỀ VIỆC SỬ DỤNG QUIZIZZ CHO HOẠT ĐỘNG ĐÁNH GIÁ THƯỜNG XUYÊN THÔNG QUA TRÒ CHƠI Ở CÁC LỚP HỌC TIẾNG ANH NHƯ MỘT NGOẠI NGỮ

Tóm tắt: Nghiên cứu này nhằm mục đích khảo sát sự ảnh hưởng của việc áp dụng Quizizz vào việc đánh giá thường xuyên lên mức độ tham gia của học sinh trung học trong các hoạt động đánh giá đó. Nghiên cứu này áp dụng phương pháp tiếp cận hỗn hợp trong việc thu thập và phân tích dữ liệu trên 70 học sinh của trường THPT Quốc Học. Các công cụ thu thập dữ liệu là các buổi dự giờ lớp học, bảng câu hỏi và phỏng vấn. Dữ liệu được phân tích bằng phần mềm Thống kê SPSS cho các câu trả lời bảng câu hỏi và được phân tích theo chủ đề đối với các ghi chú trong các buổi dự giờ và phỏng vấn. Kết quả nghiên cứu cho thấy rằng việc sử dụng Quizizz cho mục đích đánh giá thường xuyên trong lớp học đã có sự tác động tích cực đến mức độ tham gia của học sinh trong các hoạt động đánh giá đó. Các bạn học sinh cũng đồng ý rằng Quizizz mang lại nhiều niềm vui và hứng thú hơn cho lớp học trong suốt quá trình đánh giá, do đó, họ cảm thấy có động lực để cố gắng hơn trong học tập.

Từ khóa: Học sinh trung học, đánh giá thường xuyên, Quizizz, mức độ tham gia của học sinh