

Perceptions On “Kahoot !” as An English Grammar Learning Tool: A Study Conducted at Undergraduate Level

Ilfa Ijlal

Department of English Language Teaching
University of Kelaniya
Dalugama, Sri Lanka
ilfa.idjlal@gmail.com

Abstract —The purpose of this study was to investigate the perceptions of undergraduates on *Kahoot!* as an English grammar learning tool. The study used both quantitative and qualitative methods to obtain data. Data were collected from 50 undergraduates studying at the Faculty of Science, University of Kelaniya using a survey questionnaire and semi-structured interviews. The quantitative data gathered from the questionnaire were analyzed using SPSS whereas qualitative data from the interviews were analyzed thematically. Results showed that *Kahoot!* is a motivating and effective means to assist undergraduates in improving their English grammar. The data obtained from this study are of relevance to researchers, instructors, and policymakers since it may inform teaching practices in higher education classrooms within the Sri Lankan context.

Keywords — perceptions, *Kahoot!*, learning grammar

I. INTRODUCTION

The intervention of technology into every part of our lives has transformed how activities are performed on a daily basis. Its continuous progress has made immense changes in our personal as well as professional lives. It is evident that the intervention of technology into the field of education is significant to reshape the future of it. Incorporating technology into the field of education has created various innovative learning and teaching modals and tools which increase the convenience and efficacy. It has assisted learning by providing a great favor and benefit to students and teaching by equipping teachers with right tools they need in order to improve students' engagement into their teaching process. Therefore, teachers need to be sensitive to these technological changes and adapt their teaching strategies according to the current needs and preferences of the learners. Moreover, teachers and educators should try to replace traditional textbooks with learning software in order to enhance students' engagement in learning.

There are wide varieties of learning software developed to assist language teachers in their classrooms. In addition, teachers now have the opportunity to integrate play-based learning activities via technology. The incorporation of play in learning has seen the emergence of a unique concept of game-based learning which is also known as gamification. According to Warschauer and Healey (1998) (as cited in Sørensen & Meyer, 2007) [12], games have been conceptualized as an enjoyable factor in language learning since they create an enthusiastic environment by increasing motivation and authentic communicative practices in which learners and even the teachers become more interested in the learning and teaching process. Thus, the features of gamification based software such as being interactive and responsive are suitable for English language classrooms. One such technological software that has proven to be invaluable in the language classroom is *Kahoot!* which can be used as a teaching as well as an assessment tool where the users are encouraged to learn, play and socialize in classrooms thus

making the learning process an active one (Graham, 2015) [6]. In *Kahoot!*, quizzes are integrated with game design elements, like graphics, music, sounds, points and competitive leaderboards with the aim of generating students' motivation to make a playful and competitive atmosphere (Wang 2015) [15]. Thus, there is a need to investigate students' perceptions regarding *Kahoot!* for language learning.

A large number of studies have been conducted on student perceptions and experiences on *Kahoot!* in higher education classrooms across a variety of disciplines (Wang 2015 [15]; Plump & LaRosa 2017 [11]; Nicolaidou 2018 [10]). It is necessary to investigate students' perceptions of *Kahoot!* in higher education in the Sri Lankan context as well. There is also a lack of studies on the effectiveness of *Kahoot!* as a tool which can be utilized to learn grammar with regard to undergraduates who learn English as a Second Language in the Sri Lankan context. Given this background, it is worthwhile to examine more in-depth undergraduates' perceptions of *Kahoot!* as a tool to learn grammar. In attempt to address this research purpose, the following research questions guided this study: RQ 1: What are university students' perceptions on the use of *Kahoot!* to learn grammar in English classes? RQ 2: To what extent does *Kahoot!* enhance undergraduates' engagement and motivation towards learning grammar?

II. OBJETIVES

Previous research studies associated with *Kahoot!* have primarily focused on the benefits instead of understanding how these platforms are perceived by students within the higher educational context, especially while learning English grammar. In response to this problem statement, the present study aimed to realize better insights into students' perceptions of *Kahoot!* through qualitative and quantitative data analysis. The data obtained from this study are of relevance to researchers, instructors, and policymakers because it may inform teaching practices in higher education classrooms within the Sri Lankan context.

III. METHODOLOGY

This study employed a mixed- method research design that involved 50 first year undergraduates from the Faculty of Science, University of Kelaniya who followed the course “English for Biology”. According to Tashakkori and Creswell (2007) [13], mixed-method which is a combination of both qualitative and quantitative measures offers multiple perspectives to examine a research problem, expands the understanding of a complex issue, and leads to better interpretation of the findings. The participants were selected through convenient sampling, consisted of those who have intermediate to low levels of proficiency and fluency in English. This research took place over a period of four weeks. The participants learned English grammar lessons accordingly, and then participated in the online quiz-games in



each lesson either in the middle of the lesson as exercises or at the end of it as recap activities.

The research instruments which were utilized to collect data were a survey questionnaire consisted of 22 items and semi-structured interviews. The questionnaire items were adapted from Gardner's Attitude and Motivation Test Battery (AMTB) according to the need of this study. The items in the questionnaire were ranged using five-point Likert scale which participants had to tick based on what their responses were towards each item. The survey questionnaire was given to students to answer on the last day of the research period. The items in the questionnaire were also thoroughly explained orally through translation by the researcher for the participants who found it very hard to understand. Then, the data gathered from the questionnaire were analyzed using the Statistical Package for the Social Sciences (SPSS).

The researcher has conducted semi-structured interviews with eight students. The participants were selected conveniently based on their availability and willingness to take part. The semi-structured interviews were audio taped, transcribed and coded. After coding the data, the prominent themes and recurring ideas were identified which were later interpreted to draw meaning from it. Thus, the study applied thematic analysis whereby data gathered were categorized into themes and sub-themes so as to be comparable.

IV. RESULTS AND DISCUSSION

Through the data gathered from semi-structured interviews, five major themes associated with students' perception of *Kahoot!* as a grammar learning tool were identified as follows: (1) attention and focus, (2) interaction and engagement, (3) motivation and competition, (4) learning and knowledge retention, and finally (5) fun and enjoyment. Table 1 presents a summary of the themes emerged from semi-structured interviews with few example excerpts.

Table 1. Themes and example excerpts

No	Themes	Example Excerpts
01	Attention and focus	<p>"Kahoot! helped me to memorize grammar rules"</p> <p>"The music creates a feeling of suspense and encourage me to concentrate and work harder"</p> <p>"Playing Kahoot! helped me to pay attention to grammar and focus while studying in class"</p>
02	Interaction and engagement	<p>"I enjoyed joining with my classmates to answer grammar questions"</p> <p>"I was more involved and active in class, feel that Kahoot! increased classroom interaction"</p> <p>"It helps us get to know each other more"</p> <p>"I like to use my name because I want everyone to know I am a good student"</p> <p>"I like to see my name among the top five players"</p> <p>"Kahoot! gives us a chance to discuss the correct and wrong answers together"</p>
03	Motivation and competition	<p>"Playing against other students motivates me to learn grammar"</p> <p>"It is exciting and motivating to see my name suddenly excelling in the leaderboard"</p> <p>"I revise grammar rules in to do well during the quiz"</p> <p>"I am more interested in grammar classes especially when I get high scores in Kahoot!"</p>

04	Learning and knowledge retention	<p>"Kahoot! improved my grammar knowledge. I was more prepared for taking the weekly quiz"</p> <p>"We had the chance to correct our mistakes and learn from each other"</p> <p>"I remember the grammar items I got wrong. Kahoot! helped me understand that I am not the only student who got wrong"</p> <p>"I find it helpful when the teacher discusses the wrong answers to Kahoot! questions"</p>
05	Fun and enjoyment	<p>"The class is more fun with Kahoot!"</p> <p>"There is a lot of positive energy in class when we participate in Kahoot!"</p> <p>"I post a picture of my rank on whatsapp for my family and friends to see"</p> <p>"I feel very proud when I am among the top five players"</p>

The analysis of the semi-structured interviews revealed that all of the participants (N=08) seem to agree that *Kahoot!* sessions assisted them to focus on grammar lessons. These findings are in line Vygotsky's (1978) [14] beliefs about the role of the Zone of Proximal Development (ZPD) in facilitating learners' cognitive growth and improving higher-order learning. According to him, cognitive functions, such as concentration, focus, memorization, and attention are stimulated by social interaction. The positive impacts of enhanced attention found in this study are also similar to those mentioned in previous literature (Caldwell 2007[3]; Wang & Lieberoth 2016[16]; Licorish, et al. 2018 [8]). Many students stated that the sound effects found in *Kahoot!* sustained their engagement and focus, which is consistent with Wang and Lieberoth's (2016) [16] experiment with *Kahoot!*, and is linked to Malone's (1981) [9] ideas of the role of music and sounds in stimulating students' sensory curiosity. Qualitative data analysis showed that *Kahoot!* increased students' opportunities for interaction with peers and teachers and facilitated students' deep engagement with content materials. These comments show elements of collaborative and active learning, which ties well with Wang's (2015) [15] study who found similar conclusions. *Kahoot!* was particularly helpful in changing the dynamic of the lesson, as they seemed to feel that they were a part of the discussion rather than passive learners.

Qualitative data analysis showed that all of the students (N=08) believed that *Kahoot!* created a friendly competition in the classroom which enhanced their motivation. Malone's (1981) [9] intrinsic motivation theory declares that motivating tasks are often associated with fun and enjoyable activities. These findings have also been recently confirmed by Cameron and Bizo (2019) [4] who state that gamified platforms engage students in their learning. This finding can also be associated with Krashen's (1988) [7] Affective Filter Hypothesis which states that a lowered affective filter allows the input to strike deeper and be acquired. Qualitative analysis showed that students perceived *Kahoot!* as a platform that would allow them to perform on their own. Ali and Hadithy (2018) [1] found that there was a significant increase in active learning, student's self-directed learning and a general improvement in summative assessment outcomes with the use of *Kahoot!*. Additionally, around five students expressed that the ranking obtained while playing *Kahoot!* added an element of joy and gave them an opportunity to 'take pride' in their accomplishments, which boosted their self-esteem. The same conclusion can be drawn from the study of Benhadj et al.



(2019) [2] which they conducted with Moroccan students. These positive perceptions are also in accordance with the results of (Wang & Lieberoth 2016 [19]; Plump & LaRosa 2017 [11]; Licorish et al. 2018[8]) that showed university students found the implementation of Kahoot! to be beneficial and enjoyable.

Themes from the qualitative phase were used to develop the survey instrument for the second quantitative phase. 22 items using a 5-point Likert-scale were grouped into five categories and all statements required a response of (strongly agree 5, disagree 4, neutral 3, agree 2 or strongly disagree 1). The descriptive statistics and analysis of the survey are summarized in Table 2.

Table 2. Survey questions and results (removed due to page limit)

Many students value the interaction and engagement offered by Kahoot!. Over half of the participants (60%) strongly agreed that 'Kahoot! makes the class more interactive and lively. In addition, nearly half of the respondents (46%) strongly agreed that learning grammar through Kahoot! increases their attention in class. These results indicate that students perceive Kahoot! as a useful tool to learn grammar.. The vast majority of students (30%) reported that they focus more during Kahoot! to get a good ranking. In addition, the competitive element motivated by class ranking found in Kahoot! received the highest percentage of satisfaction of all statements in this category as 62% strongly agreed that 'It was fun to compete against other students. Remarkably, only 12% disagreed and about the same percent were neutral which shows that the motivating factor of competition is not important for all students as has been previously documented by Ryan and Deci (2000) [5]. These results imply that the majority of undergraduates perceive that Kahoot! increases their engagement and involvement to learn grammar when implemented in class due to the competitive factor found in Kahoot!. Only 30% strongly agreed that using nicknames makes them willing to participate more in Kahoot! while about 12% did not really care about the anonymity feature in Kahoot!

The results show that over 32% of the sample believed that participating in Kahoot! sessions helped them to learn grammar. The majority of students supported that it was fun and entertaining to participate in Kahoot! sessions. Significantly, statement number 21 received the highest percentage of all 22 items as more than 62% of undergraduates strongly agreed that they like to compete with their colleagues. More than half of the participants believe that Kahoot! should be implemented in higher education. Evidence from both the qualitative and quantitative phases suggest a general acceptance of Kahoot! as a tool to improve English grammar among university students.

V. CONCLUSION

In conclusion, after the analysis of data gathered during the research, it has been confirmed that Kahoot! is a motivating and effective means of assisting undergraduates in improving their English grammar. After the grammar lessons, the teacher gave quizzes related to grammar points they had learned using Kahoot!. It helped the students to recall the previous grammar points. After seeing the score in Kahoot!, students could measure their knowledge. Also, it could build a good atmosphere in class. The system in Kahoot! allowed the students to do the quiz together, but provided the opportunity

to respond personally. Thus, it was able to build a competence between them. The atmosphere in class focused the learning process. Based on these facts, it can be summarized that students accept Kahoot! as an effective learning tool.

Nevertheless, given the fact that this is a small-scale research, these findings should be treated with caution and should not be overgeneralized. On the other hand, they should be used for further, extensive research into the matter so that a clearer picture is formed of the influence that Kahoot! can have on the teaching of English grammar to undergraduates in Sri Lankan universities. The results also implied that interactive platforms such as Kahoot! could be integrated as part of the grammar teaching pedagogy to increase students' focus, reduce boredom, and lower distraction.

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