ESP students' voice: Is Kahoot® helpful to learn English vocabulary during the pandemic?

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Abstract
The use of technology is closely linked to the implementation of digital learning. As one of the profiles of the 21st century teachers, digital tools are notably prominent in helping ESP students improve their learning outcome, particularly during the Emergency Remote Learning (ERL) due to COVID-19. Kahoot® as one of the technological advancements in the field of game-based learning was considered to be highly beneficial and helpful for ESP students to be more engaged and motivated in improving their English vocabulary through online means. This study presents ESP students' perceptions of the use of Kahoot® in an internet-based instruction during the pandemic. Survey research was employed with 51 participating students of the Health Promotion Study Program at Poltekkes Kemenkes Malang. The questionnaire was distributed online with 21 survey items designed to accommodate the students' points of view. The findings show that the students of the Health Promotion Department had a strong preference to the use of Kahoot® in improving their English vocabulary during the COVID-19 outbreak.

INTRODUCTION

The outbreak of COVID-19 during the past two years has impacted the rules in all aspects of life. All sectors of society are facing substantial changes due to the pandemic, one of which is the teaching and learning mode in all levels of education. The face-to-face teaching system must now be abruptly changed to an online one. It has become a great challenge for teachers across the world to maintain students' motivation and active participation in online learning process to create positivity during class interaction. One study argued that medical students had a negative attitude toward the implementation of online learning during the COVID-19 pandemic (Coman et al., 2020). It was because there were lots of challenges in the process of emergency remote learning, such as technological issues, internet access, and students' interaction (Muflih et al., 2021). This condition causes specific challenges, especially in the teaching of ESP to medical students.

Hutchinson and Waters (1987) described ESP as a method of language teaching in which all options as to content and strategy are according to the learner's background for learning". Through this, Yulia and Agustiani (2019) concluded that ESP was mostly known as a learner-centered approach because it covered the needs of adult learners who intend to learn a foreign language used in their specific fields, such as nursing, science, technology, hospitality, academic learning, etc. In other words, teaching ESP should facilitate the students' demands, and its process should link to the real industry of a workplace in the upcoming self-career. Of course, the teaching of ESP in recent years has been lots of challenges, particularly in times of crisis of COVID-19 which pushed the education system to change its learning mode from in-person classrooms to online settings.

Therefore, improving and varying the teaching techniques to help ESP students reach learning goals are essential. This can be facilitated by utilizing technology as a learning tool.

In online remote learning during COVID-19 pandemic, most students experienced serious boredom since they had to sit down and face their laptop or smartphone and join virtual lectures for an extended time in a day. It was in line with a study which revealed that stress, frustration, boredom, and fatigue had a significant correlation with online learning during the pandemic (Manea et al., 2020). Nafiah et al. (2021) also argued that online learning during the pandemic has impacted the students' boredom. This situation influences the quality of students' learning experiences and mental health (Barrot et al., 2021) which in turns could bring bigger impact on the education field. One of them was the problems of students' interaction and engagement in online classroom activities. Hollister et al. (2022) reported that students struggled to connect with their peers and teachers as well as on how to handle the instruction of assignments. Dealing with this, teachers must think of an innovation in teaching strategy to keep the learning process going and to help the students achieve learning goals.

Referring to that situation, the teaching of English is also now facing a new challenge because it must be conducted online. Hodges et al. (2020) proposed that the delivery of a virtual learning mode due to the current crisis be called Emergency Remote Learning (ERL). Dealing with this, teachers must be able to find possible media or strategies to make sure that the learning process runs well during this not-so-ideal situation. A previous report shows that during the pandemic, the selection of appropriate tools or learning media in the process of online learning in the context of ERL was still found to be challenging (Wulandari & Mandasari, 2021). The media or strategies employed must be able to attract the students' interest to participate in the class session actively as interest is considered to be one of the most influential factors that can affect students' involvement in the learning process and is also a key factor in learning achievement. This statement is argued in Lee et al. (2014) who concluded that students' interest in learning a subject has a positive correlation with the students' achievement. This (interest) is one of the conditions that must be fulfilled to ensure that the learning outcomes can be well achieved without giving too much burden to the students during the whole process of learning.

Among many online media that teachers can use nowadays, some are designed as gamification platform that can be utilized to aid the process of learning. Rajendran and Shah (2020) stated that gamification are often applied in the 21st century and enabled the teaching and learning process to be more interactive and fun as well as improving the quality of education. This statement is in line with another finding which stated that game-based learning increased students' intrinsic motivation and energy for learning competition (Iaremenko, 2017). Learning by gaming is one of the best options to create a more active engagement from the students throughout the learning process, especially when it comes to learning ESP.

Kahoot! is one of the most popular gamified quiz platform used in academic settings. Rachman et al. (2020) argued that Kahoot! is a very effective tool to help students achieve reading comprehension skills compared to those who do not use Kahoot!. In addition, they also stated that Kahoot! is strongly recommended to be used in the classroom. There are also other quiz applications which incorporate gamification that can be used as a learning tool to learn vocabulary besides Kahoot!. Learningapps.org is one if the platforms to learn English vocabulary. It has some types of quiz, such as multiple choice, matching pair, crossword, cloze-text, and so forth. The teachers can select and create their preferences. Mandasari and Wulandari (2022) reported that Learningapps.org was helpful to facilitate the learning of English vocabulary during the pandemic of COVID-19. Jannah et al. (2020) also added that another platform to learn vocabulary, such as Quizziz, was really enjoyable because the features resemble a game application and students were unlikely to feel bored. However, teachers need to vary their teaching tools to make the atmosphere of learning changing and different. In short, through this game-based application, it was easy for the students to learn English vocabulary in a fun and engaging way to improve their English competency.

According to Jones et al. (2019), Kahoot! is an online gamified pedagogical tool that centers on students' engagement and motivation. It has several quiz types such as multiple choice, open-ended question, true-false, poll, and so forth that can be readily used for the online class, teachers

can also create their own quiz. Additionally, Kahoot! also has useful features such as an up-beat background music, auto feedback, a scoring board, and a colorful display that supports atmosphere of learning competition in the classroom. As Sabandar (2018) stated, Kahoot! claimed to provide teachers to create a game-based quiz, healthy competition, and reward good ideas. Therefore, it provides a competitive but fun atmosphere when completing the game as well as learning and mastering English vocabulary. Some literatures also show that the use of Kahoot! as a digital educational game was very effective to keep students engaged (Bawa, 2018). The nature of the application can stimulate students to try their best to be at the top ranks of the game.

This application does not only have lots of beneficial features. Kaur and Naderajan (2019) stated that Kahoot! enabled students to engage and actively participate in their language learning process, and thus provide more meaningful and rich language learning experiences. Licorish et al. (2018) also proved that the use of Kahoot! influenced classroom dynamics, encouragement, and students' learning process. It was also supported by findings of previous research which reported good and positive perception both from the teachers and students toward the use of Kahoot! in the classroom (Adnyani et al., 2019). Thus, we can see that Kahoot! is not only inviting to students, but also the teachers. It is proven to be able to bridge the needs of the students and the teachers to have a lively and fulfilling classroom to achieve learning outcomes.

All previous research reported that Kahoot! was such a useful tool for language learning activities. However, currently there is still very limited information about the use of Kahoot! for ESP students. Through this study, the writers intended to figure out the students' perspective on the use of Kahoot! in emergency remote learning and whether their understanding improved in learning English vocabulary. Based on the evidences in the literatures, it was hoped that positive learning outcomes could be achieved through the use of this application for health students at Poltekkes Kemenkes Malang during the emergency remote learning of English for specific purposes. This research was conducted to answer the question of "How are the students' perceptions of the use of Kahoot! to learn English vocabulary? Is the application helpful or otherwise?"

RESEARCH METHOD

This study used a mixed-method approach which combines quantitative and qualitative data collection using survey as the instrument. According to Johnson and Onwuegbuzie (2004), mixed-method integrates the strengths of quantitative and qualitative techniques. Survey research is commonly employed to inquire point of views, manners, preferences, and perceptions of a large population (Latief, 2011, p. 124). In this research, a survey was used to find out the opinions, perceptions, and favorites of Health Promotion Study Program (HPSP) students focusing on the use of Kahoot! as a gamification tool for learning English vocabulary. This study was conducted in October 2020 and the questionnaire was distributed to HPSP students at Poltekkes Kemenkes Malang with a total number of 51 participants. These participants were in the first grade of semester 1 in the academic year of 2020/2021. These students took English course that semester.

In this study, all of the fifty-one students were the target population since they represent all the HPSP students who took English subject in that semester. Thus, this study employed total sampling technique as described in Sugiyono (2007). Arikunto (2002) also argued that, if the number of the population of the study is less than 100, it is better to take all of them into consideration. The respondents came from various regions in East Java, mostly were from Malang Raya, Probolinggo, and Blitar, while others were from Lumajang, Banyuwangi, Kediri, Tulungagung, Jombang, Trenggalek, Ponorogo, Gresik, and Surabaya.

The instrument of this study was an online questionnaire consisting of 21 items used to figure out the students' point of view regarding the use of Kahoot! as a learning tool to learn and enhance English vocabulary. The questionnaire was adopted and modified from previous research dealing with similar problems (Adnyani et al., 2020; Licorish et al., 2018). The instrument had already been tested for validity and reliability and was deemed as a valid instrument. Items number 1 – 4 focused on the demographic data of the respondents particularly dealing with internet access to join online settings or learning from home due to the COVID-19 pandemic. Then, items number 5 – 13 and 19 and 21 corresponded to the students' points of view concerning the use of Kahoot! as a learning

media to help students get their engagement in the English online instructions to learn vocabulary. Lastly, items number 14 – 18 and 20 dealt with the students' perceptions of Kahoot! features to learn vocabulary. All items were adopted and constructed from the previous studies and literature reviews. It was written in Bahasa Indonesia to make it easier for the students to understand the questions and to choose the corresponding answers. The questions were constructed in the form of short answers as well as a linear scale with a range of options from strongly disagree to strongly agree. Data collected from the questionnaire were analyzed using descriptive statistics to show the distribution of answers in the group (Latief, 2011).

FINDINGS AND DISCUSSION

This study aimed to explore the perceptions of the Health Promotion Study Program students at Poltekkes Kemenkes Malang regarding the use of Kahoot!, whether it was very helpful for the students' engagement in online class activities and whether it was able to improve students' English vocabulary during ERL during COVID-19 outbreak. This assumption was based on the facts shown in the literature which suggests that Kahoot! as a digital educational game was very effective to keep students engaged (Bawa, 2018). The data collected from the questionnaire was in the form of demographic data and students' points of view. The data are presented in the following discussion.

Demographic Data

The result of the questionnaire corresponding with demographic data were the name of the study program, students' grades (year/semester), address, and internet connection access.

Table 1. Demographic Data

No	Items	N	%
1	Study Program	61	100
2	Students' level	51	100
	- First grade		
3	Province distribution		
	- East Java	47	92.1
	- Kalimantan	1	1.96
	- Bali	1	1.96
	- Banten	2	3.96
4	Internet access		
	- Well accessed	25	49
	- Occasionally	26	51
	- No	-	-

The total number of participants was 51 students consisting of males and females and most of them were from various places in East Java. Only four (4) students came from outside of East Java, namely Kalimantan, Banten, and Bali. According to Table 1, most respondents were from Malang, Blitar, and Probolinggo. Several students came from other cities around Malang, such as Tulungagung, Kediri, Lumajang, Kediri, Surabaya, and others. The information about their location was very important to find out whether they had good or bad internet access due to online remote learning. Based on Table 1, it was found that 49% of students had good internet access and 51% of students found that sometimes it was good and sometimes bad. Information about the quality of internet connection were gathered because Kahoot! needs to be accessible in areas where the internet connection is good to get the best performance of the application.

The data regarding demographic data were very prominent to figure out students' pace when they had to join online settings and access all English instruction in a good state of internet connection. In accordance to the joint ministerial decree (Ministry of Home Affairs, Ministry of Religious Affairs, and Ministry of Education and Culture) on 15 June of 2020 regarding the implementation of online learning in higher education for the academic year 2020/2021, Poltekkes Kemenkes Malang responded to conduct learning from home to all the students, including students

of Health promotion Study Program to cut off the spread of Coronavirus disease. In reality, the learning process in online setting in this time of emergency caused lots of challenges faced by the students, one of them was internet connection access. Students' challenges such as internet access, enthusiasm, and engagement are always linked to the achievement of online learning (Hodges et al., 2020). Another review also pointed out that the major challenge of web-based learning for nursing students (74%) was internet access (Wulandari & Mandasari, 2021). The result of this data collection supported the findings of previous research as shown in figure 2 that only 49% of respondents stated having good internet connection access. Those data were very essential to figure out the students' condition and ensuring that they could access teachers' online instructions during the crisis of the COVID-19 pandemic.

Table 2. Students' Perception of the Use of Kahoot

No	Items	SD	D	N	A	SA
1	Learning vocabulary through Kahoot! was very attractive and the students are enthusiastic	1%	3.9%	13.7%	47%	23.3%
2	Kahoot! helped the students to easily memorize the vocabulary	-	7.8%	23.5%	45%	23.5%
3	Kahoot! improved students' vocabulary		5.9%	25.5%	45.1%	23.5%
4	Kahoot! helped the students to practice spelling	2%	11.8%	33.3%	31.4%	21.6%
5	Kahoot! helped the students to easily learn word meaning	2%	11.8%	29.4%	33.3%	23.5%
6	Kahoot! kept the students motivated to learn vocabulary	5.9%	2%	17.6%	51%	23.5%
7	Kahoot! kept the students competitive in learning vocabulary	3.9%	2%	21.6%	41.2%	31.4%
8	Kahoot! provided the students' vocabulary explorations	2%	5.9%	15.7%	49%	27.5%

Based on Table 2, the students' perception of the use of Kahoot! was good and positive, particularly dealing with vocabulary mastery. For the first item, 47% of respondents agreed and 23.3% of respondents strongly agreed that learning vocabulary through Kahoot! was very attractive and made the students enthusiastic. The second item also showed a similarity, 45% of respondents agreed and 23.5% strongly agreed that Kahoot! helped the students to easily memorize vocabularies. The third item of the questionnaire pointed out another supporting result. The respondents agreed (45.1%) and strongly agreed (23.5%) that Kahoot! improved students' vocabulary. This result was supported by other results which showed that 31.4% of respondents agreed and 21.6% strongly agreed that Kahoot! helped the students to practice spelling; 33.3% agreed and 23.5% strongly agreed that Kahoot! helped the students to easily learn word meaning; 51% respondents agreed and 23.5% strongly agreed that Kahoot! kept the students motivated to learn vocabulary. The two last data showed similar findings, 41.2% of respondents agreed and 31.4% strongly agreed that Kahoot! kept the students competitive in learning vocabulary, 49% of respondents agreed and 27.5% strongly agreed that Kahoot! provided the students with vocabulary explorations.

These findings are in line with the results of previous research which stated that Kahoot! had a positive impact on students learning of a language (Zarzicka, 2016). According to the researcher, Kahoot! was beneficial to English teachers in their teaching practice. In other words, Kahoot! was pretty interesting to be implemented in the classroom, particularly in this online instruction during an emergency situation, and it made the students more excited to join the internet-based activity. Another study of a literature review regarding the use of Kahoot! pointed out that it impacted students' participation, involvement, and encouragement (Wang, 2020) led to the students' ability to

memorize words easily without realizing that they learn new words. Hence, the results of this study supported the previous findings regarding the impact of Kahoot! on English vocabulary learning.

In addition to that, due to the gamification model of this application, the sense of competitiveness was very strong among students. Pratolo and Lofti (2021) also had similar findings regarding the use of Kahoot!. They revealed that Kahoot! did not only motivate students and built a good class atmosphere, it also helped students to focus as well as providing positive competition. Competitiveness is one of the factors that can boost students' interest in learning, thus it can promote and led to the engagement and motivation to join online instruction to break the boredom during the long-online class. It was in line with another statement which stated that the efficacy of gamification model of Kahoot! was the highest that led to enjoyment and engagement (Leung & Pluskwik, 2018). The most important thing was that Kahoot! was very recommended among medical students, such as nursing, medication, and dental students (Felszeghy et al., 2019), particularly based on this study, the Health Promotion Study Program also had positive point of views on the use of Kahoot!.

Table 3. Students' Perception of the Engagement & Achievement

No	Items	SD	D	N	A	SA
1	Kahoot! makes the students to be more active in the online class	3.9%	2%	21.6%	35.3%	37.3%
2	Kahoot! promoted interaction among students and teachers	3.9%	0%	21.6%	35.3%	39.2%
3	Kahoot! improved students' achievement	3.9%	3/9%	25.5%	47.1%	19.6%

According to Table 3, the students' perception of engagement and achievement showed a similar result to the data in Table 2. The perception was significant towards the use of Kahoot! as learning media for online instruction during the pandemic of COVID-19. The first data showed that 35.3% of students agreed and 37.3% strongly agreed that Kahoot! made the students more active in the online class. The second data presented that 35.3% of students agreed and 39.2% strongly agreed that Kahoot! promoted interaction between students and teachers. The last data also displayed that 47.1% of students agreed and 19.6% strongly agreed that Kahoot! improved students' achievement.

Some related studies explored the use of Kahoot! in the learning process, not only for English department students, but also for medical, nursing, dental, and health departments. Those studies pointed out that Kahoot! enhanced learner performance and engagement levels more than traditional teaching methods (Bawa, 2019; Gebbels, 2018; Tan et al., 2018). In addition to that, they mentioned that Kahoot! improved students' motivation and involvement along with reinforcing and enriching learning materials. Beyond that, another findings noted that Kahoot! worked very well for the students of nursing and was very beneficial to the students of Generation Z (Kuo, & Chuang, 2016). Based on this explanation, the results of this study were in line with and supported the previous research results that Kahoot! gained positive perceptions from the students. Kahoot! viewed significantly as positive among the students, particularly the HPSP students at Poltekkes Kemenkes Malang. This application helped them to be more active and participative in online activities, built interaction among students themselves and teachers and increased their language achievement during online learning due to the COVID-19 outbreak.

Based on Table 4, the writers pointed out again that students' perceptions of the use of Kahoot! as learning media in the online setting were quite positive. It means that their perceptions of this application were pretty good. The first data showed that 33.3% of students agreed and 25.5% of students strongly agreed Kahoot! is very popular among students. In addition to that, 23.5% of students agreed and 49% of students strongly agreed that they liked the back sound feature on Kahoot! because the quiz seemed more challenging. Other data supported that 29.4% of students agreed and 37.3% of students strongly agreed that they like the question model on Kahoot!.

In the digital era, the use of Kahoot! as a learning tool for offline or online learning was beneficial, applicable, and simple, and the ultimate point was enjoyable and challenging. A range of

Table 4. Students' Perception of Kahoot® Features

No	Items	SD	D	N	A	SA
1	Kahoot! is very popular among students	0%	15.7%	25.5%	33.3%	25.5%
2	I like the back sound feature & it is very challenging	2%	7.8%	17.6%	23.5%	49%
3	I like the time allotment on Kahoot!	5.9%	21.6%	31.4%	25.5%	15.7%
4	I like the question model on Kahoot!	0%	5.9%	27.5%	29.4%	37.3%
5	The features are very effective, efficient, and simple to use	0%	5.9%	21.6%	39.2%	33.3%

ages enjoyed playing quizzes or others through Kahoot!, so it is very popular among learners. The result of previous studies showed a similarity with this result study which stated that the respondents were familiar with this game. As stated by Wang and Tahir (2020), Kahoot! belongs to one of the most popular game-based learning platforms, with 70 million monthly active unique users and half of K-12 student population in the United States using it. It was also said that Kahoot! was very well-known among Turkey students and the most preferable over ClassDojo, Socrative, and Classcraft (Bicen & Kocakoyun, 2017).

On the other hand, some features of Kahoot! also had some drawbacks according to the students' perception. Regarding the time allotment and the scoreboard features, the data showed non-significant results from the students' point of view. According to the data on the time allotment feature, only 25.5% of students agree and 15.7% strongly agreed that they like the time allotment features of Kahoot!, 31.4% of students stated that they were neutral which meant the writer could not draw any exact conclusion, and 21.6% of students disagreed that they like the time allotment feature.

Each application will always have some strengths and weaknesses, it also applies to Kahoot!. This is in line with another research result which reported that each student perceived Kahoot! as a game-play platform both positively and negatively (Kusumaningrum et al., 2022). It depends on the users on how to utilize and minimize the problems that probably emerge from an application, especially when it is dealing with the features and learning application. Some features can be added to ensure that the learning targets can be achieved without eliminating the fun factor of the gamification learning concept offered by the Kahoot!, such as by providing elaborate explanations for the correct answer and probably by adding extra "liveliness" so that the students will have more opportunities to answer difficult questions. The drawbacks should be used more appropriately by the teachers in designing game materials and how they can give strong impacts too towards the learning process. Teachers should identify the types of quiz or questions that will be employed during the class session beforehand to ensure that it will be appropriate for the students and for the learning outcomes.

CONCLUSION
As mentioned before, this article aimed to present the students' point of view of the Health Promotion Study Program at Poltekkes Kemenkes Malang regarding the use of Kahoot! on whether it helped them to improve their English vocabulary during the online setting due to the COVID-19 outbreak. It was found that students' perception was highly positive of Kahoot! concerning the benefits, the features, and the impact. This application was quite popular among learners in the digital era and the features were very advantageous in helping the students to get more involved, motivated, and enhanced in the online classroom of English. The findings of this study supported the theoretical framework recommending that educators can take into account integrating new digital technologies into the curricula. Recent technologies, such as the introduction of Kahoot! or similar gamification platforms could supplement the face-to-face teaching methods and provide additional scaffolding for student online learning. Since there are more chances to conduct offline teaching at present, the use

of Kahoot! is also strongly encouraged to create a lively and engaging atmosphere in the ESP teaching and learning process.

In the digital era, getting involved with technology is very prominent right now, including in the process of language learning. Technology is considered to be very helpful to get students' engagement in the online setting as well as face-to-face classroom, so English teachers as well as ESP teachers need to take into account to develop instruction with the basis of technology, especially using Kahoot! which was empirically proven to keep the students more motivated and participated in the classroom. Furthermore, students liked taking Kahoot! quizzes, which built a lively learning atmosphere where they felt assured and safe enough to acknowledge if they needed further clarifications.

This study was limited to the students' perception only, further research may be conducted to find out the effectiveness of the Kahoot! application in improving students' English language skills or components in the context of online instruction due to the pandemic of COVID-19. Beyond that, future researchers may figure out if the immediate feedback provided by this application works effectively or otherwise.

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