Improving Critical Reading Ability, Learning Autonomy, and Learning Participation through Kahoot! Application

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ABSTRACT
This research is aimed at finding out whether the use of Kahoot! application can increase the students’ critical reading ability, learning autonomy, and their learning participation in critical reading learning process. This research was conducted at the English Education Program Study of IAIN Surakarta involving 36 students as the research subjects. This classroom action research consisted of 2 cycles; 5 meetings for each cycle, with 1 pre-test and 2 post-tests. Based on the research results, it can be found out that the mean of pre-test scores is 25.56, the mean of post-test 1 is 44.39, and the mean of post-test 2 is 66.17. It means that the use of Kahoot! application can increase the students’ critical reading ability. The results of the questionnaire consisting of 9 indicators show that the use of the application can increase the students’ learning autonomy as well. Furthermore, the results from observation prove that the students’ learning participation increased during the learning process when Kahoot! application was applied. The students also assumed that the use of the application had increased their learning participation.

Keywords: Kahoot! application, critical reading ability, learning autonomy, learning participation

INTRODUCTION
Krashen states that reading is receptive skill that is very essential in the development of the learner’s intellectuality and capability. Reading is also critical to any educational initiative, and is part of the functional literacy that defines the intellectual faculties of an individual. Therefore, reading is key to literacy development through empowering readers with new vocabularies (of a particular language) based on their spelling system (Mulumba 2016). From the explanation, it can be clarified that reading is a core skill to other forms of literacy such as critical literacy and social literacy including in EFL learning process.

In education, reading improves a sense of intellectualism and academic readiness among learners. At English Education Study Program of IAIN Surakarta, Reading becomes a subject that is taught from the first semester up to third semester. Critical Reading is one of pre-requisite subjects taught at the second semester. Based on the classroom observation, several problems arose in the teaching-learning process of Critical Reading subject related to linguistic and non-linguistic factors. This is evident by the low scores of students’ semester exam results in the previous Reading class, with the average score lower than 70 for the range of scores from 0 to 100. Problems related to linguistic factors include, among others, the minimum number of vocabulary, lack of initial knowledge on reading theories, poor grammatical mastery, and lack of reading skill mastery. Meanwhile, problems related to non-linguistic factors include, among others, lack of motivation, lack of active involvement in the learning process, and relatively low learning independence.

From the aspect of the lecturer, there are sometimes problems in creating a pleasant and dynamic classroom atmosphere. Due to this reason, it is important for lecturers to implement appropriate and fun techniques or
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media. It is in line with what Lopez in Coronado, Maria, and Miyashiro (2019) says that the causes of the low levels of reading comprehension are diverse: poor vocabulary, scarce previous knowledge, development of cognitive skills involved, lack of motivation, lack of knowledge, and/or lack of mastery of comprehension strategies and metacognitive strategies.

With the development of IT, reading learning can be made more lively and enjoyable by using a variety of media, including online media. One of the web/online-based learning platforms is Kahoot! application. Kahoot! is one of the well-known game-based learning platform that is very user friendly for both educators and learners. This game-based application is an innovation of Johan Brand, Jamie Brooker, and Morten Versvik in collaboration with the Norwegian University of Technology & Science. It is especially designed and aimed to develop and/or to review the learners’ knowledge and to assess in the form of light quiz in a fun way. Currently, Kahoot! consists of four kinds of form: Quiz, Jumble, Survey, and Discussion that can be used favorably according to needs and interests. Kahoot! also provides free application that makes it more versatile for educators and learners alike (Sabandar, Supt & Suryana 2018).

Another factor that also influences the process of teaching learning on critical reading is students’ learning autonomy. Autonomous learning or learning independence of students in learning is something that is very essential for students. Lan (2018) states that autonomous learners learn more effectively and efficiently because they tend to frequently reflect on their own learning process and, as a result, they take control of their own learning. Based on the perception of learner ownership, autonomous learners are more responsible and independent. Thus, while managing their own learning, they try to always keep their learning motivation high. They are usually proactive and are willing to take risks during the learning process.

Furthermore, an independent and motivated learner is also expected to actively participate in the teaching learning process. Participation in the classroom is defined as contribution to discussion and in-class group activities (Susak 2016). However, students in the classroom can be actively involved in different way; according to their preference. Teacher in the classroom, including in the reading class, should be able to recognize the students’ involvement. It is also becoming a task for teacher to always keep the students involved in the teaching learning process by implementing appropriate techniques, media, or strategies.

Problems in this study include whether to use the Kahoot! application integrated with Critical Reading subject can improve the students’ critical reading skills and their learning autonomy, as well as the level of students’ learning participation at English Education Study Program of IAIN Surakarta. The problems are very crucial to investigate in order that the lecturer can find an appropriate strategy to improve several aspects mentioned above, especially by implementing Kahoot! application. By implementing this game-based application, lecturer is also expected to be able to evaluate the students’ ability in an effective and efficient way because this kind of application can give feedback in a few minutes.

LITERARY REVIEWS

Many studies have been conducted related to the implementation of Kahoot! application in teaching learning process, including in reading class. Omar (2017) conducted a research on Kahoot! implementation for teaching reading in an EFL classroom. The findings present students’ perspective on the
effectiveness of assessment by using Kahoot! towards their good feedback practice. By assessing the application, it contributes towards understanding the strength and weaknesses on the usage of technology assessment in classroom activities. Chotimah & Rafi (2018) conducted an experimental research and analyzed the results by using ANCOVA. The results show that the significance value is 0.02. It means that implementing Kahoot! influence the students’ reading skills. Chiang (2020) tried to implement Kahoot! application on several groups of Chinese students. The results show that students’ have positive attitude toward Kahoot! implementation in reading class. Furthermore, Plump & La Rosa (2017) also conducted a study about students’ perception concerning the use of Kahoot! application. The students’ responses and their experiences using the application in graduate and undergraduate classrooms indicate that they welcomed the use of this platform. The real-time feedback provides opportunities for teachers in various disciplines to tailor their instruction based on students’ understanding on quizzes. The surveys also allow for anonymous classroom participation, which further engages all students. Meanwhile, Zarei & Gahremani (2010) conducted a research on the relationship between learning autonomy and reading comprehension ability among the higher school students. Results of the correlation procedure indicated that there was a positive relationship between learners’ autonomy and the reading comprehension ability although the one-way ANOVA results showed that the differences among the scores of low, mid and high autonomy-level students on the reading comprehension test were not statistically significant.

Compared to those previous studies, our study is also concerned about implementing Kahoot! application in the process of teaching learning, especially in English Language Teaching focused on critical reading. One previous research results explain about the correlation between learning autonomy and reading comprehension ability. The findings also show similar findings to our research results where the implementation of Kahoot! can improve the students’ skill as well as their engagement in the classroom activities. Learning autonomy also has a correlation with reading ability. However, our research has several differences in that we try to conduct a Classroom Action Research to solve the students’ reading problems. Our research also tries to investigate the implementation of Kahoot! on students’ learning autonomy as well as their participation in the classroom activities. Meanwhile, none of the previous studies tries to integrate several variables in one research. Therefore, it can be said that our research is more complete compared to those previous research.

Grabe in Alyousef (2006) describes reading as an “...active process of comprehending [where] students need to be taught strategies to read more efficiently (e.g., skim ahead to fill in the context, guess from context, define expectations, make inferences about the text, etc”. Meanwhile, Harris & Hodges (in Moore 2016) define comprehension as “the construction of meaning of a written or spoken communication through a reciprocal, holistic interchange of ideas between the interpreter and the message in a particular communicative context.” Reading comprehension is a fundamental skill for a learner to understand what is being read. In order to improve one’s capability, comprehension skills must be developed and refined over time. In brief, it is important to learn how to apply a variety of comprehension strategies based on the types of texts being read (Moore 2016).
There are several types of reading, one of which is critical reading. Flynn in Taglieber (2000) states that critical reading involves "an interactive process using several levels of thought simultaneously", for example, analysis—the clarification of information by examining the component parts; synthesis—the combining of relevant parts into a coherent entity; and evaluation—which involves establishing standards and then judging ideas against the standards to verify their logic. Critical reading, however, according to Duncan is a more active way of reading. Furthermore, critical reading is much more complex than reading since critical reading is not just a process of interpreting the message of the text, but it also analyzes and evaluates the text (Moore 2016).

Leicester University describes critical reading as the activities of examining the evidence or arguments presented; checking out any influences on the evidence or arguments; checking out the limitations of study design or focus; examining the interpretations made; and deciding to what extent the reader is prepared to accept the authors’ arguments, opinions, or conclusions (Moore 2016). Regarding this, it is essential to teach critical reading strategies in order to develop critical reading. Salisbury University's presents seven strategies in critical reading namely previewing, contextualizing, questioning, outlining and summarizing, reflecting on challenges to your beliefs and values, evaluating, as well as comparing and contrasting (Suacillo et al. 2016). In conclusion, several skills in critical reading should become the focus in teaching learning process by implementing any strategies in order to develop learners’ capabilities as a whole.

Recently, learning process in all areas, including in reading, is highly influenced by independence in learning or learning autonomy. One of the recognized areas of gap in the literature on reading comprehension and learner autonomy is that although many scholars have identified reading comprehension as one of the most essential language skills, only few of them have engaged themselves with ways of stimulating autonomous reading. Rivers in Pang believes that reading comprehension is the most essential skill for the learners at different levels, including in the EFL learning process, yet it is common to find students who are unable to read English texts in a comprehensive and autonomous way. Verdugo (in Zarei & Gahremani 2010) states that students rarely receive any guidance into strategies to facilitate the interpretation of texts autonomously. He asserts that through education, EFL learners should practice to read English texts autonomously by integrating metacognitive, cognitive, and socio-affective strategies necessary for a better understanding of a text.

In reading area, Borg & Al-Busaidi suggest that learning autonomy is considered a determining factor encouraging the learners to develop and reach their potentials. Similarly, autonomy in reading has attracted the attention of many instructors and educators for decades. Various learning approaches and teaching practices are proposed to develop EFL autonomous reading and the removal of possible obstacles in this area (Shirzad & Ebadi 2020). Likewise, Humphreys & Wyatt state that learner autonomy refers to a level at which students are generally expected to independently choose the necessary learning resources and strategies, then apply the language to the extent that they require, as well as speak and write in that language as they fully prepared. Therefore, learner autonomy should be developed progressively by the learners themselves who extend their autonomy by relying on what they already are capable of doing (Shirzad & Ebadi 2020).
Another factor influencing EFL process is students’ participation. Many scholars have addressed the question of EFL classroom activities, students’ participation and responses, and how the teacher as well as the students use L1 or L2 in the classroom. Riddell in Caicedo (2015) states that classroom activities should be useful for fostering language skills, grammar, and vocabulary, as well as the role of the teacher before and during each stage of a given classroom activity. Before an activity, teachers must identify the most suitable activity based on their class levels, their learners’ average ages, class features and time available, and the targeted language aspects.

To increase the students’ participation, Riddell in Caicedo (2015) suggests that during the classroom activities the teacher should choose various activities from lesson to lesson. Practice activities need to be carefully selected, and properly set up with instructions and examples as well as should be as relevant and interesting as possible (Caicedo 2015). According to Klippel, recently, activities for practising a foreign language have expanded into the fields of values education and personality building and have left the purely structural and lexical training. Classroom activities should be focused in terms of their topics, the speech acts involved, language focus, educational aims, level, organisation, time, and preparation. Similarly, classroom activities should help students recognize themselves in the target language, and for that to occur, should be meaningful and can create students’ interest, which will improve their performance (Caicedo 2015). This holistic view is in line with Masika & Jones (in Bergmark & Westman 2018) who emphasize belonging as part of student participation, signified by a feeling of being included and accepted by others – that is, being a member of a community of practice through collaboration and communication with peers.

Furthermore, the students’ participation in a group is not the same because frequently they participate in different ways. The goal of increasing participation is not to have every student participate in the same way or at the same level. Instead, it is to set an environment in which all participants have the opportunity to learn and in which the class explores issues and ideas in-depth, from a variety of viewpoints. Certain students perhaps will raise their voices more than others; this variation is a result of differences in learning preferences, as well as in personalities (Bergmark & Westman 2018). Brown (in Triyanto 2019) states that teamwork can help overcome many shortcomings of traditional learning methods and provide benefits for the students and teachers in order that students become more active. Meanwhile, Tesfaye & Berhanu (in Triyanto2019) state that students can learn better when they are participating, involved mentally, and are committed in the process of discovery, interpretation, and investigation. From all the explanations, it can be inferred that students’ participation in the critical reading class should also be improved in order that the classroom activities themselves result in the improvement of students’ critical reading skills.

This research is a Classroom Action Research (CAR) of two cycles, by integrating the use of Kahoot! application with the Critical Reading subject. Each cycle is carried out in five meetings for treatment or teaching the students by using Kahoot!, one pre-test and one post-test in Cycle I, and 1 one post-test in Cycle II consisting of a series of steps based on action research cycle formulated by Kemmis & McTaggart which consists of: (1) planning–action planning; (2) action–action implementation; (3) observation–research
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This research was conducted at English Education Study Program of IAIN Surakarta with 36 second semester students as the research subjects. After all data had been collected, data analyzing was done by using descriptive statistics, including mean, median, and mode as well as frequency distribution table, so that it could be seen whether there was an increase from the results of pre-test to post-test 1 and from post-test 1 to post-test 2. Furthermore, data from the questionnaire were processed through descriptive statistics as well and narrated qualitatively. Data from interview results were used to complete the questionnaire results so that it could be seen whether students’ learning autonomy in critical reading learning process increased significantly. The level of students’ participation was calculated through an increase in the frequency of involvement and the number of students who actively responded.

To find out the initial ability of research subjects on critical reading skills before treatment and whether there is an increase in ability in cycle I and cycle II, the researchers gave pre-test, post-test 1, and post-test 2 to the research subjects. The results of the three stages of tests are shown in Table 1.

Table 1: Students’ Reading Scores on Pre-test, Post-test 1, and Post-test 2

<table>
<thead>
<tr>
<th>Score</th>
<th>Pre-test</th>
<th>Post-test 1</th>
<th>Post-test 2</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total (Σ)</td>
<td>920</td>
<td>1598</td>
<td>2382</td>
</tr>
<tr>
<td>Mean (X)</td>
<td>25.56</td>
<td>44.39</td>
<td>66.17</td>
</tr>
</tbody>
</table>

From Table 1, it can be seen that the total number of scores in pre-test was 920, while the mean score was 25.56. In post-test 1, a total score of 1598 was obtained with an average of 44.39. Meanwhile, in post-test 2, the total score was 2382 with the mean of 66.17. Based on the results obtained on each test, it can be seen that there is an increase in the average score from pre-test to post-test 1 of 18.33 points (from 25.56 to 44.39). There was also an increase in the mean score from post-test 1 to post-test 2 of 21.78 points (from 44.39 to 66.17).

Questionnaires given to 36 subjects in this study were open-ended questionnaires about the increase of students’ learning autonomy after Kahoot! application was applied in the learning process of Critical Reading subject so that students can freely give their opinions. The questions were constructed in accordance with the indicators of learning autonomy and the results can be seen in Table 2.

Based on the results of the questionnaire, 90% of students assume that learning initiatives on Critical Reading subject increase after Kahoot! application was implemented, 63.33% of students thought that the use of Kahoot! application can help diagnose learning needs, 60% of students state that using Kahoot! application can help in setting learning targets and goals, 70% of students reveal that using Kahoot! application can help monitor, organize, and control the progress of learning, 80% of students state that the use of Kahoot! application provide challenges to improve abilities, 83.33% of students are encouraged to utilize and search for relevant material resources for Critical Reading subject, 60% of students suggest that using Kahoot!
application can help choose and implement learning strategies that are suitable for Critical Reading subject, 66.67% of students suggest that the use of Kahoot! application can help them evaluate the process and learning outcomes, and 60% of students think that using the Kahoot! application can increase self-confidence in working on critical reading questions. Data from the questionnaire related to participation in the learning process show that 83.33% of students feel that the use of Kahoot! application can increase the desire to participate in the learning process of Critical Reading subject.

### Table 2: The Indicators of Students’ Learning Autonomy and Participation

<table>
<thead>
<tr>
<th>Indicators</th>
<th>Frequency (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Able</td>
</tr>
<tr>
<td>Increase learning initiatives</td>
<td>90.00</td>
</tr>
<tr>
<td>Diagnose learning needs</td>
<td>63.33</td>
</tr>
<tr>
<td>Set learning targets and objectives</td>
<td>60.00</td>
</tr>
<tr>
<td>Monitor, manage, and control learning progress</td>
<td>70.00</td>
</tr>
<tr>
<td>Become a challenge</td>
<td>80.00</td>
</tr>
<tr>
<td>Utilize and search for relevant material sources</td>
<td>83.33</td>
</tr>
<tr>
<td>Choose and implement suitable learning strategies</td>
<td>60.00</td>
</tr>
<tr>
<td>Evaluate learning processes and outcomes</td>
<td>66.67</td>
</tr>
<tr>
<td>Increase confidence in working on problems</td>
<td>60.00</td>
</tr>
</tbody>
</table>

Critical Reading subject which is taught at the second semester of English Language Education of IAIN Surakarta is one of the prerequisite subjects to take Reading subject in the following semester. At the beginning of the lecture process of the Critical Reading subject, the lecturer as a researcher heard a number of students complained that they felt bored with the materials and lazy to read scientific texts in English, let alone examined the detailed information of the texts. Under this condition, researcher and collaborator assumed that there was a need to apply appropriate learning media that could increase students’ motivation and learning participation. In addition, the research team also recognized the need to improve students’ learning autonomy so that students were encouraged to be more independent in learning to read and not highly dependent on the lecturer. Therefore, the researchers decided to use one of the free learning platforms that can be used interactively between lecturer and students, that was, Kahoot! application.

There are various advantages of using Kahoot! application that appears in the reality of the implementation in the field. As an application, Kahoot! makes the learning atmosphere fun, dynamic, and not boring. The use of this application also increases students’ participation because besides they are required to have an account, students also become motivated to achieve the highest score and answer in the fastest time because all names with the best results can appear on the screen and are known by their friends. Thus a
competition arises that educates them without any sense of desire to bring down each other.

Furthermore, from the items answered, because both lecturers and students can find out the number of students who answered correctly and incorrectly, the answer results can be used as feedback for both parties to focus more on materials that are less understood by students. Although actually Kahoot! application is more appropriate as an application for ice-breakers, but based on the general interview with students, students find it very helpful in the learning process with the use of this application.

With the various benefits of using the Kahoot! application, it is expected that an increase in the quality of learning in the classroom is expected to ultimately improve the quality of students’ abilities, especially in critical reading. Based on the results of the pre-test, post-test 1, and post-test 2, it can be seen that an increase in students’ critical reading abilities shown by a significant increase in the mean score. Even though the average score of students was only 66.17, the average score of pre-test was only 25.56, this increase was quite high because there was an increase in total points of 40.61.

Based on the results of the questionnaire, the researchers also obtained a description that students have a positive attitude towards the application of Kahoot! in the learning process of Critical Reading subject. They also feel that their learning independence is quite increased after this application is used. Students can then set learning targets, take more initiative in finding learning material, be more confident, be more challenged, and be more able to evaluate their own learning outcomes.

Based on the results of the questionnaire, it can be seen that the application of Kahoot! in the learning process of Critical Reading can foster students’ motivation. Students become more challenged to solve the questions given by the lecturer, moreover the points of each student for each item answered can be stored in a separate file so that the lecturer and students can monitor the development of their reading skills. With the use of Kahoot! application, students can also enhance teamwork, especially when they have to answer questions in groups and when given a group assignment to make several test items that were displayed through Kahoot! to be answered by other groups. Students are also encouraged to be more active and participative in the learning process because every student must have an account on Kahoot! application which can be monitored when they have to answer questions. For them the learning process becomes more fun, not boring, and can increase their confidence.

Nevertheless, there are a number of suggestions made by students regarding the implementation of Kahoot! An internet network with a strong signal is needed so that the application can operate smoothly. In addition, sometimes the learning atmosphere is rather noisy which makes certain students less focused in understanding the material. Based on the results of the questionnaire, it can be seen that the implementation of Kahoot! in the learning process of Critical Reading can foster students’ motivation. Students become more challenged to solve the questions given by the lecturer, moreover each student’s points for each item answered can be stored in a separate file so that both lecturer and students can monitor the development of their reading skills.

**CONCLUSION** Based on the results of the study, it can be concluded that the implementation of Kahoot! application integrated with critical reading activities can improve
the students’ critical reading skills and their learning autonomy. Meanwhile, data from the questionnaire related to participation in the learning process also show that the use of Kahoot! application can increase the desire to participate in the learning process of Critical Reading subject at the English Education Study Program of IAIN Surakarta.

The results of the research imply that Kahoot! application can be an appropriate alternative media to implement in Critical Reading class due to its benefits for lecturer and also for students. Therefore, the researchers suggest the lecturers to consider implementing this media in the classroom. However, the lecturers should be careful in keeping the students focused and concentrated because sometimes the students are too excited and neglect the basic concepts of the materials. For other researchers, developing further research concerning the implementation of this media will probably give other perspectives that can complete our research results.

REFERENCES


Suacillo, Carine Iries M, Song Eun Um, Josephey M Velasquez, Hannah Nicole R Villaflores, & Maria B. Cequena. 2016. “Critical Reading Strategies, Reading Comprehension and Writing Performance of Esl College Students: A Correlational Study.”
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