

Implementing IR 4.0 Based-Teaching Model through Kahoot: A Case Study of State Elementary School 1 of Sukoharjo

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Abstract

The use of learning media is one of the main achievements to teaching process in the age of Industrial Revolution 4.0 (IR 4.0). Through media, students can understand more easily what a teacher explains in the course of learning, both in class and elsewhere. In teaching English reading to students of Elementary School Jombor 1 of Sukoharjo, at the end of each learning process, each teacher of 13 respondents was given a time to conduct a study assessment to assess the degree to which students' skills are based on the responses of teachers regarding what is demonstrated in a number of ways, including by presenting questionnaires, group presentations, written assessments by using Kahoot App. The English quizzes provided by Kahoot App can increase students' desire to learn, and learning innovations and students' participation in the reading learning process. The success of this newly used of method need to integrate teachers and students' active participation in creating an effective learning technology environment.

Keywords

elementary school teachers; industrial revolution 4.0; kahoot; english reading



I. Introduction

The Industrial Revolution 4.0 (IR 4.0) has a major impact that affects all the human life sectors. The relationship between the teachers and students in the educational system is influenced by this industrial revolution. We used to perform face-to-face learning in class, as time goes by the demand to study from Internet network (Online Learning) offers great advantages. Many facilities have been provided by internet service companies to support learning activities in the classroom connected to the internet network as a means of collaborators to unite face-to-face activities with the internet network (digital literacy). In response to the challenges raised in the age of industrial revolution 4.0, this has become important for change in the way the students study, think and act.

Most teachers understand that preserving the motivation, attention and focus of their students in a lesson over time is a challenge. Lack of motivation can lead to fewer learning outcomes and a negative classroom environment (Liu, et al., 2012). In addition, there is clear evidence that student participation in classroom activities promotes comprehension and school success (Prince, 2004). Learning app has a positive influence on the dynamics of the classroom, on students and teachers, and on learning success (Caldwell, 2007; Chien, 2015). Kahoot! was the first media to have a gaming experience using the ideas of game design from theory on motivation (Malone, 1981) and gameflow (Sweetser & Wyeth, 2005).

Game-based learning is one way of providing students with a learning environment that enhances the engagement of learners in collaboration. Kahoot app as a learning technology platform integrates learning evaluation experiences by integrating interactive games with a student tracking system (Correia and Santos, 2017). Kahoot Platform

Innovation can aid fascinating, engaging, effective and easy to monitor learning outcomes in learning evaluations (Dewi, 2018). Kahoot platform is the product of a joint project collaboration between the Norwegian University of Technology and Science with Johan Brand and Jamie Brooker as the initiator. Kahoot has two website addresses <https://Kahoot.com/> for teachers and <https://Kahoot.it/> for students.

Kahoot App helps teachers to evaluate students' skills (Wang and Tahir, 2020; Kurnia, 2018). Kahoot is an alternative option from a range of interactive learning media that makes the learning process enjoyable and not boring for both students and teachers, as the Kahoot App emphasizes learning styles that require the active involvement of students and their peers in a competitive manner towards learning that they are or have been learning through (Harlina, & Ahmad, 2017). Kahoot App can affect the emotional social development of students by allowing them to compete and collaborate as individuals or team (Sari, 2020).

The concept of game-based learning is a learning approach that can improve students' ability and efficiency in knowledge acquisition. Game-based learning is a tool to problem solving, improving critical thinking and assessment in students' learning process (Dellos, 2015). Studies in educational design have shown that game-based learning is an effective tool in education, especially to ensure continuous learning motivation (Huang, 2011). There's no doubt that learning with a game approach involving student participation with digital technology shows a greater desire to continue with the next learning process relative to conventional learning. Educational game through gaming app integrates cultural and social values into the game. Educational game is a game used for learning and the game incorporates elements of educational principles (Sutirna, 2018). The use of technology as a learning medium promotes the policy, distribution and production of information by educators and students (Nurseto, 2011). In addition, the use of media in learning can help generate desires and interests, activate and promote learning activities and even affect students psychologically (Hamalik, 1986).

Reading has a deep connection to and with language (Heilman 1981:50). Once the first schools of the nation were founded, reading was a big way to achieve social goals. In addition, direct learning is specifically established as a recognised teacher efficiency research expert by Barak Rosenshine (Heilman, 1981: 30-31). Saragih and Ananda (2019) stated that teacher performance is the implementation of a plan that has been prepared through planning good learning activities that is by completing learning tools in the form of syllabus and learning implementation plans (RPP) instead planning poor learning activities if the teacher does not prepare learning tools in the form of syllabus and lesson plans. Lesson Plan is a guide in learning activities that include competencies that must be achieved, goals, materials, methods, models, media, and learning steps, as well as assessment instruments (Rahmanisa et al, 2018).

In recent studies, teachers who use a direct teaching model are claimed as successful (Keiler, 2018). Teaching activities that focus on subject matters where student objectives are evident. Due to the fact that modern learners are very engaged in technology, the idea that games can be a more effective platform for learning than traditional media is inevitable. Games are the realm of practice, which are ignited through reward, fun and competitiveness, in which the world of education no longer can overlook imagination, problem solving, teamwork, determination and development of skills.

The Kahoot gaming app in this study utilizes an online quiz platform. Kahoot game classroom learning at the State Elementary School Jombor 1 of Sukoharjo was carried out by; (1) the teacher through creating an account for free on the website <https://kahoot.com/> which can later also be linked to each participants' Google account (2) Teachers create the features and the test material prepared for each test element that has been modified according

to learning parameters (3) After preparing the content, teacher offers a pin to which students can access the <https://kahoot.it> website, which allows for the pin and user name to be entered (teachers can use In-focus to make it more interesting and easy). (4) The teacher 's main device can display multiple choice questions (5) Students select the right answer from the current computer according to the predetermined length of time (it will be more fun and simpler to use a smartphone) (6) Students who choose the quickest and most correct answer will get a higher score, competitively (7) At the end of the game, the teacher will save the results of each student's answers on Google Drive or directly downloaded to his computer in the form of a street space as an appraisal to make it more accessible to students.

II. Research Methods

This study is a case study with descriptive explanatory method. In this case, the researcher studied the teacher's learning and learning responses of using the Kahoot App on English reading subject. This qualitative descriptive method in this study aims to describe all the responses given by students through the questionnaire given. The measurement scale used is a Likert scale with 5 indicators namely 1. SD (Strongly Disagree), 2 DA (Disagree), 3 NT (Neutral), 4 AG (Agree) and 5.SA (Strongly Agree). This study's main purpose is to provide an accurate description or explanation of a situation such that it is designed as a problem-solving of the situations currently faced. The aim of this study is also to provide a description of individual, group understanding whilst using the Kahoot platform as an interactive learning platform.

In line with the aims and objectives of this study, the research approach used in this study is a qualitative analysis by performing a direct experiment using the Kahoot platform for elementary school teachers at the State Elementary School Jombor 1 of Sukoharjo. Observation sheet and Questionnaire were primarily used in this study. Observation sheet was meant to observe all activities that happened during teaching learning process. The activities included teacher and students activities. The questionnaires were distributed to know the potentials of classroom online games or E-learning through Kahoot media in teaching reading. And to describe how E-learning enhances learners' motivation. The last is an exploration of the proposed study, namely classroom teachers and English reading subject related to their understanding of the use of the Kahoot platform through a questionnaire in which the number of questionnaires was distributed to 13 teachers as much as 20 statements.

III. Results and Discussion

3.1 Results

a. Teaching Reading

Reading deals with language coded into print. Reading is a linguistic process. Reading ability is closely linked to capacity to understand native communication. Reading is an active and ongoing activity, directly influenced by the interaction of a person with his or her environment (Heilman, et al., 1981:3-4). Comprehension is the product of reading instruction. Reading is not a natural process. Direct alphabetic instruction promotes early reading is one of the most important findings in all conduct sciences early reading. No linguist, psychologist or cognitive scientist in the scientific community accepts the idea that learning to read is just like learning to speak (Stanovich, 1994: 285-286). In comparison to the development of oral language, reading does not necessarily arise from experiences with parents and other adults even in print-rich environments (Bald, 2007:118).

It is not only important for teachers of reading to form a concept of the reading process but also extremely critical that they distinguish between the reading process and reading instruction. If a teacher of reading accepts the idea that a major aspect of the reading process is comprehension (Heilman, et al., 1981:5), then there are two facets of reading instruction that must be put into proper perspective: 1). Decoding print into sound and 2). Decoding a language graphical representation of context. The reading objective therefore defines the best way of understanding the reading. There is far more than decoding to interpret comprehension. Understanding the effects when the reader knows the skills and competencies and techniques are relevant to the form of text and understands how to apply it to the purpose of reading.

b. Applying Kahoot in Classroom Activities

The best way to play Kahoot is through a group, including a schoolroom, a meeting room, or even a family living room environment. The games are shown on a screen such as a smart TV, laptop, or virtual whiteboard. Screen sharing apps, including matches, can also be used from other schools or from elsewhere as Appear In, Skype and Google Hangouts. User has their own devices – irrespective of whether they are using your tablet, iPad, canoe, laptop or desktop, as long as you have a browser and a stable internet connection.

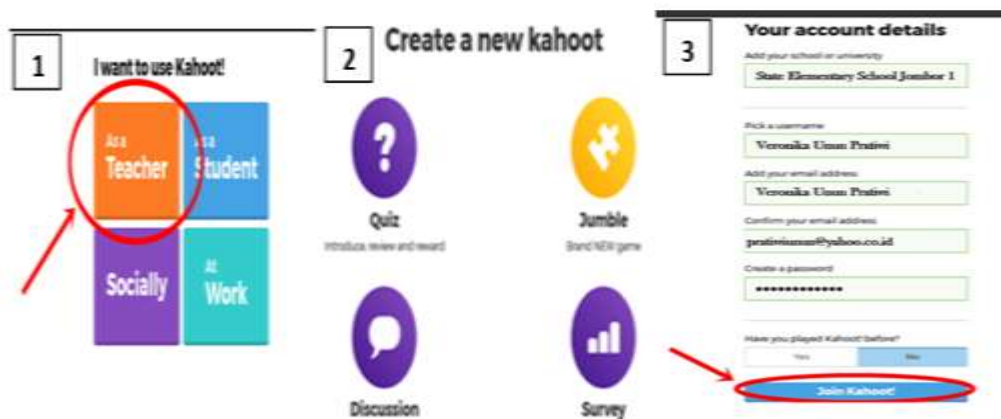


Figure 1. Steps to register Kahoot App.

The subsequent steps are required to access and use Kahoot media; a. As an teacher, it begins by typing in the <https://kahoot.com/> and then click on the "Register" sign in the upper right corner of the screen. Internet, Microsoft or email will do the registration process. The form is then completed to join Kahoot. If the Google display shows "find me a kahoot" type any material you want to use as an exercise and then press on the "enter" button. Then click the button "select" and "play". When a "classical" and "team mode" option appears, press the "team mode" box because this game is played as a team, then press the Start button. After pressing the "start" box a game pin will appear which will require students to enter their cell phones or laptops. After the students are ready to play, press "Start".

c. Teachers' Responses to Kahoot App Implementation

The results of this study are based on the variable teachers' perceptions about the Kahoot quiz platform implemented in the Basic English Reading for Elementary School lesson at the State Elementary School (SDN) Jombor 1 of Sukoharjo which consists of indicators of interest, quality of content, language and ease. The results of the teacher's assessment questionnaire perception using the Kahoot platform as learning media is based on 20 statements with 5 answer choices, namely Strongly Disagree (SDA) has a score of 1, Neutral (NT) scored 2, Disagree (DA) scored 3, AG (Agree) scored 4 and Strongly Agree

(SA) scored 5. As for the statement and score the answer choices are: The comment for a question does the Kahoot platform's presentation on the proficiency reading skills quiz is interesting?, those who response AG scored 32 and SA scored 65. The comment for greater enthusiasm to learn with this reading skill quiz throughout the Kahoot platform to enhance students' reading skills, the teachers who choose AG scored 28 and SA scored 70. The other comment is the use of the Kahoot platform which turns the learning process not boring, those who scored 24 for AG response choices, scored 70 for SA's response choices. Another comment is on the Kahoot quiz platform which is quite interesting in terms of visual appearance (photos, videos, etc.), scored 3 for NT response choices, 52 for S response choices and 35 for SA response choices.

The other comment is the learning motivation of the students seems to be enhanced with the presence of the quiz after implementing Kahoot App, those respondents scored 2 for DA responses, 40 for AG and 50 for SA responses. The comment on Kahoot! App for t it allows students interested in taking quizzes, those who scored 32 for the AG responses and 65 for the SA responses. The teachers' comments on the use of quizzes through Kahoot App are less useful for students in reading learning, scored 9 for DA responses, 40 for AG responses and 40 for SA answers. The comments for do students seem prefer to work on quiz questions using Kahoot App, scored 48 for AG and 50 for SA answer choices. Another comment is that the quiz questions posed in Kahoot App are felt to be more difficult for students to understand the questions, scored 4 for DA responses, 21 DA, 36 AG choices and 15 for SA responses. The next question point makes Kahoot App very easy for students to focus on and appreciate quiz questions, those who scored 3 for DA responses, 56 choices for AG and 30 for SA responses. The comment for the question does the problems presented easy to understand, scored 6 for DA response choices, 52 AG choices and 30 for SA response choices. The comment for the question during the test taking results, it is really simple with the aid of such Kahoot App, those who scored 3 for DA responses, 44 AG choices and 45 for SA responses. The comment on the question is it is easy to access such Kahoot App, those scored 48 for AG responses and 45 for SA responses. The comment on the question is it is easy to use Kahoot App, scored 48 for AG responses and 45 for SA responses.

The next comment on whether all the directions and instructions are easy to understand, both in terms of menus and facilities (buttons) offered by this App, those who scored 15 for NT response choices, 52 for AG choices and 15 for SA response choices. The next comment is the clarity and simplicity of the sentences used in the study, the respondents with a score of 21 for DA response choices, 44 for SA choices and 15 for SA response choices. The next comment is that the language used in this lesson topic quiz is simple and easy to understand, those who scored 36 for AG and 60 for SA responses. The comments on the symbols used in the English reading quiz are straightforward and easy to read, the respondents who scored 52 for the AG response and 40 for the SA response. The comments made on the issue of whether the test material presented is easy to understand, those who scored 15 for NT responses, 44 choices for AG and 25 choices for SA responses. The final point as to whether the evaluation test will find out how far the comprehension of the material taught using the Kahoot App through the Quiz those who scored 3 for DA response choices, 40 for AG choices and 15 for SA response.

3.2 Discussion

Based on teachers' perception and the results for students' assessment using Kahoot platform, then students' interest from the teachers' questioners reached 87% with the "Very Attractive" criteria, which means that students are very interested in using the Kahoot platform as a quiz in their learning activities (also cf. Luqman et al., 2017). Learning, which

is enjoyable, interesting and not boring, is a very important first step for learners. Certainly, students should concentrate their full attention on studying to ensure that they have a high time to learn (cf. Arsyad, 2013). The easy use indicators of Kahoot App by 88 percent with the "Very Attractive" criteria, which means the App is quite simple and user-friendly both for students and teachers to use as a quiz in the English reading subject. This confirms an idea that the software advancement easily becomes worthwhile if it is easy and convenient to use. Effective learning software requirements include flexibility, ease of updating, content or related material, validity and user-friendliness (Norhashim, 1996). The language indicator is 87 per cent with the "Very Interesting" criterion, which indicates that students understand and clearly describe the quiz questions presented by Kahoot on reading skills, although the order of letters is limited when asking questions and answering quizzes about the Kahoot App. Social Media can be used to distribute messages (learning materials) to stimulate learners' attention, desires, ideas and feelings to achieve the learning objectives in learning activities (Hamalik, 1994).

In line with this study, Kahoot as a learning media was ideal for directing students' learning materials. Content quality indicator of 85 percent with the "Very Interesting" criteria, meaning that students continue to state that the quality of the content of the quiz questions is not reduced by the instructor in the field of reading skills using Kahoot application, so as not to reduce the learning plan's competence. The use information technology to enhance the quality and efficiency of the education process including systems of information management (SIM), e-digital, learning media, and life skills training. Using Kahoot as a learning medium can improve the quality of content taught (Surjono, et al., 2017). The mean perception of the students using the Kahoot quiz as a learning media is 85% among these four evaluation metrics. This means "Very Interesting" for students to use, thereby encouraging them to use Kahoot as a learning environment without diminishing the standard of their learning issues, their disinterest in learning and the dilemmas of teachers facing the revolutionary age of 4.0.

IV. Conclusion

The Kahoot App program provides input for teachers to be more enthusiastic in preparing material and exploring reading skills in using the internet or IT. This is what will encourage teachers to innovate in teaching reading material to students, because so far psychologically in carrying out learning in school students tend to easily get bored. As a learning platform, Kahoot App is a very interesting, efficient and useful resource for learning outcomes. The English quizzes provided by Kahoot App can increase students' desire to learn, and learning innovations and students' participation in the reading learning process. Learning technology, especially for teachers and developers, requires both parties' active participation in creating an innovated learning technology. This study only addresses the implementation of Kahoot quiz platform in a specific area, which is students and teachers at State Elementary School Jombor 1 of Sukoharjo, Indonesia. It is hoped that more studies will be conducted to learn how to use other mechanisms of Kahoot, including surveys, discussions and jumble / mix. Apart from Kahoot should only be used in an environment efficiently connected to the internet network. Inadequate facilities for the area can interfere with the learning process, and this is why appropriate interactive learning media is required depending on the facilities any school owned.

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