DEVELOPMENT OF DIGITAL SUPPLEMENTARY MATERIAL USING QUIZIZZ-BASED LEARNING MEDIA IN INTENSIVE ENGLISH COURSE

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Abstrak

Penelitian ini bertujuan untuk mengembangkan materi tambahan digital pada *Intensive English Course* sebagai media pembelajaran dan untuk melihat kualitas Quizizz sebagai media pembelajaran pada IEC. Penelitian ini menggunakan metode D&D dengan tiga prosedur pengembangan yaitu *Design, Development, dan Evaluation.* Penelitian ini menggunakan beberapa instrumen yaitu blueprint, lembar validasi instrumen, dan lembar evaluasi ahli isi dan media. Penelitian ini menggunakan analisis data kualitatif dan kuantitatif. Hasil akhir menunjukkan, tidak terdapat perbedaan yang signifikan dari persentase ahli yaitu 98,2% dan 96,4% untuk konten dan 96% dan 94% untuk media. Efektivitas bahan ajar digital dengan menggunakan media pembelajaran yang berbasis Quizizz dinyatakan dapat meningkatkan hasil belajar. Berdasarkan hasil penelitian, dapat disangkal bahwa materi pelengkap digital dengan menggunakan media pembelajaran berbasis Quizizz sangat baik untuk pembelajaran materi present tense bagi mahasiswa semester 1 Program Studi Pendidikan Bahasa Inggris dan perkuliahan bahasa Inggris.

Abstract

This study aimed to develop Digital Supplementary Material in Intensive English Course as a learning medium and to see the quality of Quizizz as a learning medium in IEC. This study uses the D&D method with three development procedures: Design, Development, and Evaluation. This study uses three instruments: blueprint, instrument validation sheet, and content and media expert evaluation sheet. For the data analysis, this study employed qualitative and quantitative data analysis. The final result showed no significant difference from the percentage of experts, namely 98,2% and 96,4% for content and 96% and 94% for media. The effectiveness of digital supplementary material using Quizizz-based learning media is stated to improve learning outcomes. Based on the result of this study, it can be denied that digital supplementary material using Quizizz-based learning media is very good for teaching and learning present-tense material for 1st-semester students in the English Language Education study program.

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INTRODUCTION

Technology is a tool for making all human activities easier. Technology has advanced and grown at a breakneck pace in all fields in the current era. As technology advances, it will impact people's personal lives, activities, and ways of thinking. Rapid technological advancements must be taken advantage of, particularly in education (Nasution and Nasution, 2021). Wahyudi (2019) Technology in education helps create media as a teaching and learning process. In this situation, technology transforms traditional learning patterns into technology-based learning. Reyna et al. (2018) stated that learning that uses technology as a learning medium is technology-based learning. One of the five key components used in the learning process is media. These five elements, namely the objective, the material, the method, the media, and the learning evaluation, all impact one another (Wibawa et al. (2019); Nastiti & Purwanta, 2019).

According to Adnyani et al. (2020), using technology as a learning medium for students can boost their feelings, willingness, and attention while studying. Students' motivation in the learning process, as well as their interest in English, are aided by the media (Fadhilawati, 2021). One of the most successful ways for teachers to teach their students is through the use of media. Technology-based learning media enhance learning by allowing students to communicate with one another, which increases the value of their speaking abilities (Tafonao, Setinawati, and Tari, 2019). Students are encouraged to study independently using e-learning, virtual courses, game-based learning, interactive multimedia, computer-based learning, and other digital-based learning improvements. Learning in the twenty-first century is constrained by classroom and time constraints and the capacity to access content online via computers and mobile phones, necessitating innovation in the learning process. (Amalia 2020).

Intensive English Courses are basic compulsory subjects in the English Language Education study program expertise that pupils are required to acquire. Based on the Intensive English Course syllabus for English Language Education students in their 1st-semester,will study five topics are describing people and things, describing places and locations, telling daily activities, describing what people are wearing, and comparing people and things. Those topics are related to four grammar points in the present tense material: simple present tense, present continuous tense, present perfect tense, and present perfect continuous tense. Problems experienced during the learning process of Intensive English Courses such as there is still a lack of student enthusiasm and engagement in the learning process, students' continued lack of understanding of the patterns and uses of the simple present, present perfect, and present perfect continuous tense, students' frequent errors in preparing correct sentence patterns; and, students lack interest in the lecturers' learning process for learning simple present tense material.

Based on the results of pre-observations conducted by researchers at the English Language Education study program Universitas Pendidikan Ganesha to lecturers of the Intensive English Course, it was found that students experienced difficulties in Intensive English Course, especially to learn present tense material. However, there are still challenges to overcome during the learning process, particularly in the five subjects discussed previously. Students are less engaged in their study; course content is still delivered through traditional media. Even during a pandemic like this, the lecturer's role is to transmit the subject as effectively as possible. Educators were taught how to use a variety of internet programs. All teachers are required to be able to teach online. Teachers collaborate with students' parents or guardians to ensure that the learning process runs smoothly. As a result, more inventive, effective, and efficient digital supplemental material for Quizizz-based education is required. Digital supplementary material is needed to increase student learning outcomes.

According to Tafonao et al. (2019), media is a strategic tool in deciding the success of the learning process in education. Teachers need learning media as a means of delivering subject matter. For educators, the use of learning media in the teaching and learning process is crucial because it can channel the sender's message to the recipient and help students explain something the educator has taught them. (Tafonao, 2018). Learning media is an intermediate that the sender uses as a route for transmitting signals to the recipient to elicit the same level of attention, thoughts, feelings, and wants for the learning process to occur (Safarati

& Rahma, 2020; Fadillah & Maryanti, 2021). Learning media can be used as a tool to help children engage in active, creative, and enjoyable learning activities (Dhamayanti, 2021; Astafiria & Bayu, 2021). Teachers can use a variety of media, including game-based learning media, which can also be used as assessment material to assess student knowledge throughout the period in which they are learning the material (Mei, Ju, and Adam 2018). Quizizz is a game-based educational application that may be used to test your knowledge (Pusparani, 2020). Quizizz also gives students the opportunity to compete, which encourages them to learn and enhances their grades (Harefa et al., 2020).

Based on the problem mentioned above description, the researcher proposes to build a learning media that can motivate student learning and support lecturers in applying the learning media in the teaching process, namely, "Development of Digital Supplementary Material using Quizizz-based Learning Media in Intensive English Course." Which aims to produce good digital supplementary material using Quizizz-based learning media.This learning medium's design is intended to be used as an alternate learning medium for the Intensive English Course. This digital supplementary can be used by students both in and outside of class, allowing it to be used in various situations.

METHOD

This research uses design and development research (D&D). Design and development research is a type of structured systematic research of the design and development of a product (Richey and Klein, 2005). In terms of design and development research, this study incorporates three steps explicitly. The researcher will perform research on the design, development, and evaluation of a digital supplemental material tool used as a teaching medium for the Intensive English Course. The focus of this subject is on designing and developing items in the form of educational media, as well as performing research. There are two sorts of design and development studies in general(Richey and Klein, 2005). The first category focuses on product and tool research which studies project designing and developing tools. The second category emphasizes models development and validation. In this research,

the first category is used in designing a product, namely teaching media. There are three stages used in this study (see Figure 1).
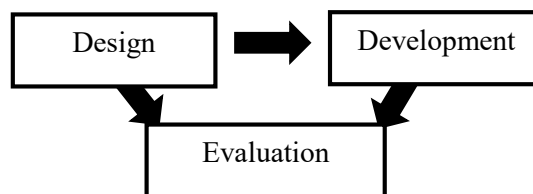

Figure 1. Research steps by Richey and Klein (2005)

Based on the Figure 1. research steps above, the first is the design stage. The design stage is the stage where the researcher designs the product after studying the literature related to this study and analyzing the IEC Syllabus. In addition to designing products, researchers also create blueprints as component instruments for good digital supplementary materials. The blueprint content product is based on IEC syllabus in 1st-semester of English Language Education study program, expert validation instruments and expert evaluation instruments. The second stage is the development stage, in which the researcher creates the product that was conceived in the previous stage. At this step, the product will be subjected to expert evaluation, after which it will need to be updated based on the expert feedback and evaluation. The last is the evaluation stage where the researcher doing the final expert evaluation and the other evaluation by two user evaluation. The following data collection instruments were utilized in this study: (1) instrument validation sheet, (2) expert evaluation sheet (content and media), (3) final evaluation sheet (content and media), and (4) user evaluation sheet. Expert and final evaluation sheet adapted from (Findawati and Suprianto, 2014). The instrument is validated using the cross tabulation table from Gregory (2000). The instrument validation result will be in the form of a number. As a result, it will be quantitatively analyzed using the formula proposed by Tegeh and Kirna (2013) in (Ghofur and Youhanita, 2020), the formula of the data categorization shown in Figure 2.

$$\text{Percentage} = \frac{\text{Actual Score}}{\text{SMI}} \times 100\%$$

Figure 2. The Formula of the Categorization of the Data

Indicator of accomplishment scale

According to Agung (2010) in Suciningsih, Parmiti, and Suartama (2013), the indicator of success uses five levels of accomplishment scale.

Table 1. Level of Accomplishment

Level of Accomplishment (%)	Qualification	Information
85-100	Very good	No need revision
75-84	Good	No need revision
64-74	Enough	Need revision
55-64	Bad	Need revision
0-54	Very bad	Need revision

Table 1 shows the level of accomplishment that aids the researcher in determining whether or not the product needs change. If the level of accomplishment is 75-100 percent, the product does not need to be revised. If the product achieved a level of accomplishment of 0-74 percent, it needs to be revised.

RESULT

This section describes the results of the findings in this study, such as (1) What are the procedures to develop digital supplementary material for learning present-tense by using Quizizz?, and (2) How is the quality of digital supplementary material for learning present-tense developed by using Quizizz. These three stages can be seen in Table 2. The process of making Digital Supplementary material using Quizizz-based learning media goes through three stages as shown in Table 2.

Design, in the design stages, the researcher analyzed the existing problem of students in learning present tense material. After that, the researcher conducts the IEC course syllabus analysis as a basis for developing the blueprint. L. Then, the researcher began to design the blueprint based on the IEC syllabus to adapt the learning objectives and learning topics related to the past tense material. This blueprint used as the basis for developing digital supplementary materia.

Table 2. Research Design and Research Procedures

Research Design	Product Development Procedure
Design	1. Analyzing the problem faced by students in learning grammar, especially in learning present tense 2. Analyzing the IEC syllabus 3. Designing the blueprint uses as a guide to developing a digital supplement present tense material
Development	1. Preparing present-tense material and StoryboardThat platform. 2. Preparing present-tense material and Canva platform. 3. Preparing the Quizizz Platform. 4. Entering the content on Quizizz platform. 5. Checking the final Content.
Evaluation	1. Instrument Validation 2. Content and Media Expert Judgements

The blueprint featured five topics for first-semester students that were relevant to present tense material. Furthermore, the learning focus is based on the IEC syllabus, which includes practice problems linked to present-tense topics. After designing the blueprint, the researcher began to design the supplementary material. The storyboard was chosen by the researcherThat and Canva design, is used to create planning templates and learning materials.The researcher used several features in storyboardThat and Canva, like template, fonts, elements, and so forth that will increase students' interest to the text or story.

Development, a development stage is to develop the product after designing it through a blueprint. In developing digital supplementary present-tense material, the researcher used the Quizizz application to create the digital supplementary material, StoryboardThat, and Canva application to create several images on the quiz. The development of this digital supplement uses the Quizizz application. Quizizz was chosen as a learning medium because quizzes are more engaging, creative, and inventive media that can give presentation slides, polls, and interactive quiz games that may use in learning. Apart from presenting instructional content, it also includes exams in the form of open-ended questions, multiple-choice questions, and fill-in-the-blank questions that students can utilize with teachers or

individually. Sound effects enhance the appearance of the material, making it more enticing to students. Researchers choose Quizizz as a digital supplement because Quizizz is a game-based educational application (Zuhriyah and Pratolo, 2020). Quizizz is accessible to both educators and students. In short, we can infer that Quizizz is a web tool to create interactive quiz games used as a teaching instrument in the classroom.

On the other hand, researchers used the StoryboardThat platform to design images containing conversations on quizzes. Researchers chose StoryboardThat because this platform can make designs according to their wishes, can make designs according to the material. Storyboards can use many animated features to create stories or conversations, such as characters and places according to the story's theme (Wahjuningsih et al. 2020). In addition, researchers also use the Canva platform to make the material through the Canva platform because the topic of this daily activity contains several paragraphs that are impossible to write directly on the Quizizz platform. Therefore the researcher uses the Canva platform to create this text. Canva also gives users with ready-to-use templates. Canva has some features that support the development of digital supplementary material to become good teaching media.

Evaluation, the evaluation stage means that the media was assessed by the expert related to the content and media. Based on expert judgment calculations, Quizizz as a digital supplement for learning the present tense material for first semester students in the English Language Education study program has been successfully developed. Evidence from these results is at the level of accomplishment where the content of digital supplementary present-tense material developed using the Quizizz application does not need to be revised after the final calculation of the exper''s judgment. Regarding the components of the content of the evaluation sheet, the digital supplementary present-tense material developed using the Quizizz application has met the criteria for a good media for learning present tense material.

The quality of digital supplementary material for learning present tense material was analyzed quantitatively through expert judgments. The instrument validation sheet was completed previously, and the results were relevant. As a result, the expert judgment stage can be achieved. The results of this expert judgment were calculated using (Tegeh and Kirna, 2013) formula. The percentage gained from the calculation matched the level of accomplishment from Agung (2010). The percentage of the final score of the evaluation in expert judgment divided by the number of its components is used to calculate the quality. Based on the final results, the percentage of developed media received a satisfactory score and is categorized as a very good media. The first expert gave a percentage of 98,2% for the content and 96% for the media. Meanwhile, the secod expert gave a percentage of 96,4% for the content and 94% for the media. All percentages are classified as very good results. The following is the analysis of determining the product's quality:

1. Content evaluation from 1st expert judge
$$\text{Percentage} = \frac{\text{Actual Score}}{\text{SMI}} \times 100\% = \frac{54}{55} \times 100\% = 98.2\%$$

2. Content evaluation from 2nd expert judge
$$\text{Percentage} = \frac{\text{Actual Score}}{\text{SMI}} \times 100\% = \frac{53}{55} \times 100\% = 96.4\%$$

3. Media evaluation from 1st expert judge
$$\text{Percentage} = \frac{\text{Actual Score}}{\text{SMI}} \times 100\% = \frac{48}{50} \times 100\% = 96\%$$

4. Media evaluation from 2nd expert judge
$$\text{Percentage} = \frac{\text{Actual Score}}{\text{SMI}} \times 100\% = \frac{47}{50} \times 100\% = 94\%$$

Based on the results above, the first judge gave 98.2% for the content of Quizizz and was included in the very good category. The second judge gave 96.4% and was classified as a good media. For Quizizz media, the first judge gave a percentage of 96%, which was categorized as very good media. The second judge gave 94%, which was categorized as good media. The range of content and media for digital supplementary materials developed using the Quizizz application is very good material for learning present-tense material. It means that digital supplementary materials do not need to be revised based on their level of accomplishment.

DISCUSSION

The Quizizz application was used to create digital supplementary present tense material utilizing Design and Development research from Richey and Klein (2005). Because of this, three stages are passed in developing a digital supplementary for assessing present-tense material: design, development, and evaluation. The development of this digital supplement uses the Quizizz application, which is very easy to use and has various supporting features to complement the supporting factors of suitable media. Researchers choose Quizizz as a digital supplement because Quizizz is a game-based educational application (Zuhriyah and Pratolo, 2020). It has several features, such as memes, themes, avatars, and entertaining music, differentiating it from other educational applications. Quizizz can be used via smartphones, laptops, tablets, or computers. Quizizz is accessible to both teachers and students.

The development also considers various factors that must be considered, such as choosing various types of questions so that students don't get bored, entering questions based on the blueprints that have been made previously, adding answers, adding some pictures related to questions, and setting the time given to answer each question. Interesting learning media can attract students' attention in the learning process. So, this digital supplementary developed using the Quizizz application is well packaged in various features to support an attractive design that does not detract from the points of the quiz that will deliver. In the supplementary digital design on Quizizz, there are several questions about present tense material for 1st-semester students in the English Education Study Program.

The development of digital supplementary materials using the Quizizz application has been based on a development blueprint based on the IEC course syllabus. This development focuses on the concept of quizzes or exercises on present tense material, namely, simple present tense related to the topic of describing people, things, places, and locations. The present perfect tense is related to telling daily activities, the present continuous tense is related to describing what people are wearing, and the present perfect tense is related to comparing people and things. To ask a question, the researcher copied the link and the quiz game code and then shared it with the users so that they could access the quiz by opening the link and entering the game code. Using digital supplementary materials using Quizizz can provide interactive activities, such as quizzes that can easily be accessed anywhere. Students can see their live progress and their friends' progress, and the media display is not dull to use because there is aboard. They were ranking so that they would show their rank in each question. In addition, there are pictures, music, and memes or funny pictures that sometimes appear after students answer a question. This digital supplement also contains several types of questions, such as multiple-choice, open-ended, fill-in-the-blanks, and polling, that can be used as a good way to train students to understand present tense material better.

The efficiency with which this model is built is inextricably linked to how this medium is created and tailored to pupils' material features and characteristics. Because we are in the midst of the current Covid-19 wave, learning media is critical; learning will be more fun with the help of a digital supplementary using Quizizz-based learning media because learning is done through playing. Learning media in the teaching and learning process is critical for educators since it allows them to channel the sender's message to the recipient and assist students in explaining anything that the educator has conveyed (Tafonao, 2018). Learning media is an intermediate that the sender uses to transmit signals to the recipient to elicit the same level of thoughts, attention, feelings, and desires for the learning process to occur (Fadillah and Maryanti, 2021; Safarati and Rahma, 2020). Learning media can be used as a tool to help children engage in active, creative, and enjoyable learning activities (Astafiria & Bayu, 2021; Dhamayanti, 2021). Teachers can utilize various media, including game-based learning media, which can also be used as evaluation material to assess student knowledge if students understand the topic (Mei et al. 2018). Quizizz is a game-based educational platform that may be used for learning assessment and media (Pusparani, 2020). Quizizz also allows students to compete, which motivates them to learn and improves learning results (Harefa et al. 2020). Quizizz can create creative, original, and entertaining learning media; hence it should be used as a teaching tool (Rahmawati, 2021). Quizizz is a game-based app that is attractively designed and not monotonous. Quizizz is a web-based

tool for teachers that simplifies and summaries learning assessments (Elnovreny, 2021). Quizizz-based learning material will have a number of effect on the learning and teaching process because, among other things, (1) students' attention when using smartphone in the classroom, (2) students' ability to understand problems independently (3) participation, both in terms of asking questions about the information and in terms of assessing and documenting it. (4) The students can answer questions correctly and manage their time. (5) Calmness when answering questions or taking quizzes (Salsabila et al. 2020). The characteristics of games in the learning process, such avatars, attractive themes, memes and amusing music, are in addition to the advantages of based learning media (Nurani, Adikara, and Faida, 2021).

The implication of this study uses Design and Development (D&D) research to develop a digital supplementary present-tense material using Quizizz-based learning media in Intensive English Course with five topics and four grammar points on present tense material, namely simple present tense, present perfect tense, present continuous tense, and present perfect continuous tense. In this study, there are two discussions, namely the procedure of media development and the quality of the media that has been developed. The stages of digital supplementary materials developed using the Quizizz application is mostly done with technology.

The one disadvantage of using the Quiziz application is that it can only help students master the material in low-level cognitive domains (low order thinking skills/LOTS). Learning outcomes focus more on what students are expected to do during or at the end of a learning process. Learning outcomes must be accompanied by appropriate assessment criteria that can be used to assess the desired learning outcomes that have been achieved. Cognitive Outcomes contain behaviors that emphasize intellectual aspects, such as knowledge, understanding, and thinking skills (complex problem solving). Ability is called complete, and the board is adapted to context or needs. In this domain, the terms Low Order Thinking Skills (LOTS) and High Order Thinking Skills (HOTS) refer to the level of cognitive thinking ability according to the taxonomy developed by Bloom (Anon 2015).

From research conducted by Munawir and Hasbi (2021) stated that the effect of using quizizz to EFL students' engagement and learning outcome, the use of Quizizz has the most significant influence or contribution on the students' psychomotor outcomes. The following section looks at the impact of Quizizz on students' cognitive and affective outcomes. Furthermore, the employment of Quizizz has little or no effect on student involvement. The conclusion emphasizes the significance, albeit now overlooked, of the various ways students contribute based on the flow of the education they receive. Furthermore, the learning environment inspires students to think. From the other research conducted by Lestari (2019) stated that kahoot! and quizizz: a comparative study on the implementation of e-learning application toward students' motivation. The research findings demonstrated that using Kahoot! and Quizizz in TLP positively impacted student motivation. The observation field note revealed that about 90% of students were motivated by Quizizz instead of Kahoot! The questionnaire's findings of the students' perspectives resulted in a total score of 1448 (Quizizz) and 1214 (Kahoot!). Quizizz, according to most students, was more appealing, challenging, and inspiring than Kahoot! As a result, this study concludes that Quizziz is superior to Kahoot! in increasing students' motivation in the teaching and learning process.

Quizizz usage discovered that students are more interested in the course and are more ambitious for achievement. Similarly, the adoption of learning platform devices has improved student motivation. Students stated that teamwork is critical while learning, which backed Quizizz's application and encouraged them to study. Students that use this application to play and learn remarked that the Reward and Leaderboard system boosts their motivation. The students may view their development status on the projected screen and their smartphones. They can determine which sub materials are lacking.

Furthermore, combining a gamification approach to the learning process aids students in better understanding the course. Badges help pupils feel important, and students recall knowledge better when presented in a gamified fashion. Competition helps them enhance their response to time management and permits them

to master difficult-to-understand things. Therefore, the Quizizz application is for mastery of the material in low-level cognitive domains (LOTS) and the high-level cognitive domain (HOTS). The educators can make quizzes including why, how, and more probing questions. Quizizz appplication has open-ended menu questions by employing open-ended questions, examples, and practice tests to encourage students to think critically and creatively. An open-ended question is used in this study to assess students' HOTS.

CONCLUSION

This study intended may use the development of Digital supplementary material using Quizizz-based learning media as an alternative Intensive English Course learning media in the English Language Education study program provides a fun, challenging, and interactive atmosphere such as playing games for students and delivering innovation in the learning process to reach the learning objectives and learning indicators. Based on the research results on the development of digital supplementary materials using Quizizz-based learning media, it was concluded that the development research produced in digital supplementary material using Quizizz-based learning media in Intensive English Course that is very good and effective in Intensive English Course of English Language Education study program. Several features are available in the Quizizz application; it will help the educators and the students do the teaching and learning process effectively. The educators and the students can access the digital supplementary material using Quizizz-based learning media everywhere and every time. So, it is possible to do a teaching and learning process that becomes effective for the lecturer and the students. So, based on the previous study, Quizizz-based learning media is very flexible. Can use it for blended learning, or can use it for fully online learning.

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