Learning English With Assembl Edu- based Augmented Reality: Does The Learning Media Matter?

1. Linda Imamatul Rosyidah
2. Asna Nurul Khtaijah
3. Dwi Fita Heriyawati

1,2,3 Universitas Islam Malang, Indonesia

Abstract
This research purpose is to see the level of student’s interest in the use Assemblr Edu-based Augmented Reality. This research applied a Quantitative approach using a survey design. 15 students become participants in this research. In collecting the data, the researcher used a questionnaire. The result showed that almost all of the variables of items get a positive perception as a learning media, as shown by the highest mean of 3.47. It means that the media can assist students in learning, especially in describing an object's appearance in 3D views, where the students are more interested in describing an object. Students’ answers show that they agree that the Assemblr Edu application is fun and the Assemblr Edu application motivates students and makes students enthusiastic to learn English. The abstract of the research paper should contain the purposes, methodology, and findings of the study.

Keywords
Learning Media
Assembi Edu-based augmented reality
Students' enthusias
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Introduction

Information and communication technologies (ICTs), as is well known, have been frequently recognized by educational institutions, but more has to be done to make them effective. The younger generation (generation Z, who was born in an era of the Internet's substance) must contend with a distinctly different reality when completing their education compared to previous generations. In this environment, digital technologies give openings that go far beyond those handed by online literacy platforms using immersive computing ways that give scholars new ways to interact with digital content, similar to stoked reality. The use of learning modules or books with a simple appearance during the learning process. It can reduce scholars' interest in literacy. Students find that to be dull. Encouraging students to love learning by using educational learning media supported by the Assemblr Edu based augmented reality, teachers are currently dealing with digital native students, who are the generation that was born and grew up with the rapid growth of technology. According to (Rozi et al., 2021), scholars will be more interested in sharing in-class literacy if the schoolteacher uses veritably seductive literacy media. Learning accouterments that use stoked reality technology are one of the tutoring tools that increase scholars' interest in attending class as stated by (Mustofa & Sari, 2020) media has an important part in perfecting the quality of the literacy process, particularly in aiding scholars in the literacy process.

In the world of education, augmented reality, a relatively new smartphone technology, is being applied. In the study literature, augmented reality has drawn more attention as a key pedagogical tool that can improve learning in most educational settings. In an academic setting, this technology enables the superimposition of three-dimensional graphics into the terrain (Alzahrani, 2020). The usage of augmented reality (AR) in the sphere of education is implicit. While there has been extensive research on AR, there have also been numerous studies in the field of education. Due to the effectiveness of this technology recently, there are an increasing amount of studies on AR.

During this time, ICT has become widespread worldwide. Mobile technology has made its way into educational settings worldwide as it has become a less significant component of the daily lives of the younger generation. Because this technology impacts both the development and delivery of educational content, it may be utilized to support learning in some ways, including information production and consumption, instruction delivery, and the usage of outside apps in classrooms (Bauer et al., 2020). Research on AR has also been done in teaching foreign languages. By allowing students to participate in the learning content, augmented reality in education transforms traditional teaching methods into more interactive ones (Küçük et al., 2014).

An application called Assembl Edu, a learning media assisted by augmented reality, offers content capabilities for generating educational materials, with the end product being a QR code via augmented reality. In their research, (Adrian et al.,
2020) claim that augmented reality (AR) books can be used as a step toward improving teaching and learning in primary schools since AR can give children the opportunity to learn interactively in any setting and at any time. Augmented reality developed by Assemblr-edu simulates actual procedures. Students actively engage in these simulations when they interact with the learning tool, giving them some control over the lessons they are learning (Ramya & Madhumathi, 2017).

The interactive nature of augmented reality encourages student participation, which leads to a teaching approach that is student-centered. Through explicitly illustrating the connections between these virtual building blocks and those in place today, such as linking vocabulary (virtual elements that pop up on the screen) with real-world objects, real-world objects can be annotated with audio, textbooks, graphics, and animations that are uploaded into the environment in 3D. This enables students to visualize information. By visualizing information in a context-rich setting, scholars can draw genuine connections between the study material and the real world.

Because it is interactive, immersive, and practical, augmented reality actively involves students in the learning process by enhancing input, promoting engagement, and helping students make connections between their classroom learning and real-world situations. When students begin to use augmented reality applications, positive affective factors become even more prevalent. For example, when compared to traditional methods, augmented reality applications increase students' motivation to learn specific content (Küçük et al., 2014). Another study by Solak and Cakr (2015) examined the connections between the utilization of augmented reality (AR)-enhanced learning materials and learners' motivation and academic achievement levels among 130 university students. The results showed a strong favorable correlation between AR exposure and academic achievement and motivation levels. Knowing that EFL learners struggle to master abstract concepts like prepositions, (Hsieh & Kuo, 2014) looked at how motivated and accepting students were of AR-enhanced learning content.

The application's conclusion revealed that these items were incredibly helpful and applicable. The results of the teaching material motivation questionnaire indicated that these materials helped the subject, and students scored highly for reliability, interest, and concentration. Another EFL study found that learning aids created with augmented reality (AR) applications are easy to use, successful, satisfying to the user, and mostly interactive learning resources that improve the process of learning. Augmented reality engages students in the learning environment by enriching input, encouraging participation, and assisting learners in connecting content with real-life surroundings because it is interactive, immersive, and practical. The ability of augmented reality technology to load and merge virtual objects into the real world, similar to photos, videotapes, textbooks, 3D models, sound, and so on, is what gives it its power. It connects the physical and virtual worlds for users. In general, augmented reality operations strive to provide their users with media that is comparable to real life. As a result, fueled reality technology has consistently piqued academics' interest due to technological elaboration (Chen et al., 2019). When students start using pumped-up reality apps, they grease positive affective factors even more. In this study, students used Assemblr Edu-based augmented reality to describe an object in the topic descriptive text. The object's appearance in 3D views where students are interested in looking at the object. Students also exhibit reduced nervousness and increased enthusiasm, appetite, and eagerness to engage in activities that
incorporate augmented reality into the lesson, which is consistent with the findings that augmented reality applications (Silva et al., 2015).

A valid, practical, and helpful chemistry learning product supported by Assembler Edu is required, even though Assembler Edu-based augmented reality is only used in some fields of knowledge similar to the research by (Akçayr, 2017; Anuar et al., 2021; Tuta et al., 2022) to improve scholars' abstract understanding of factors influencing response rates, particularly the subtopic of surface area and temperature. AR is used in a variety of industries, including automotive, military, medicine, tourism, construction, architecture, sport, entertainment, engineering, assembly, navigation, museology, maintenance, product design, telerobotics, marketing, and advertising (Altinpulluk, 2019; Fidan and Tuncel, 2019; Talan et al, 2022). Therefore, the researcher use this application to be researched because this application is simple to use with mobile devices and 3D views where the appearance of the objects appears more interesting than when they only describe pictures in books, which increases students' interest in learning lessons. The application of Assembler Edu-based augmented reality can be used in a variety of fields depending on user requirements.

Method

The present study utilizes a Quantitative approach using a survey design to analyze students' enthusiasm for using Assembler Edu-based augmented reality. This research was conducted in one of the junior high schools in Malang Regency. 15 students become participants in this research. The questionnaire is used to collect data. The questionnaire was asking about the student's perceptions of using the Assembler Edu application in describing things. The instrument is adopted from the study conducted (AK, 2020). The instrument is divided into three sections: 1) asks about students' goals or achievements using Assembler Edu-based augmented reality, 2) asks about their interest in doing so; 3) asks about their attitudes toward using Assembler Edu-based augmented reality. The instrument consists of ten items on a Likert scale with four levels of agreement. The scores for each item range from 1 to 4, with 1 denoting significant disagreement, 2 disagreement, 3 agreement, and 4 strong agreement. The information was acquired, turned into numbers, and then examined. The findings were described using descriptive statistics such as frequency and percentage tables.

Results

The researcher begins this section by presenting the findings of the Students' perspective in the form of a table displaying the descriptive analysis of the items' perceived usefulness, Perceived useability, and self-efficacy. The following finding is about students' interest in using Assembler Edu-based augmented reality in language learning. The following are the study's findings:
Table 1. Descriptive Analysis of Item

<table>
<thead>
<tr>
<th>No</th>
<th>Question</th>
<th>N</th>
<th>Mean</th>
<th>Std. Deviation</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Learning using <em>Assemblr-Edu</em> helps me understand the overview of learning.</td>
<td>15</td>
<td>3.33</td>
<td>.488</td>
</tr>
<tr>
<td>2</td>
<td>I am more motivated to learn English by using <em>Assembler-Edu</em>.</td>
<td>15</td>
<td>3.47</td>
<td>.516</td>
</tr>
<tr>
<td>3</td>
<td>I have no trouble describing objects using <em>Assembler-Edu</em>.</td>
<td>15</td>
<td>3.20</td>
<td>.676</td>
</tr>
<tr>
<td>4</td>
<td>With <em>Assemblr-Edu</em>, I have a high curiosity.</td>
<td>15</td>
<td>3.00</td>
<td>1.000</td>
</tr>
<tr>
<td>5</td>
<td>I feel happy when using the <em>Assembler-Edu</em> application.</td>
<td>15</td>
<td>3.27</td>
<td>.799</td>
</tr>
<tr>
<td>6</td>
<td>I mean it when I describe an object using <em>Assembler-Edu</em>.</td>
<td>15</td>
<td>3.20</td>
<td>.561</td>
</tr>
<tr>
<td>7</td>
<td>I like to describe an object using <em>Assembler-Edu</em> because it's more fun.</td>
<td>15</td>
<td>3.40</td>
<td>.828</td>
</tr>
<tr>
<td>8</td>
<td><em>Assembler-Edu</em> helps me think critically.</td>
<td>15</td>
<td>3.13</td>
<td>.640</td>
</tr>
<tr>
<td>9</td>
<td><em>Assemblr-Edu</em> helps me learn more effectively.</td>
<td>15</td>
<td>3.20</td>
<td>.414</td>
</tr>
<tr>
<td>10</td>
<td>I am enthusiastic about describing an object using <em>Assembler-Edu</em>.</td>
<td>15</td>
<td>3.40</td>
<td>.507</td>
</tr>
<tr>
<td></td>
<td>Valid N (listwise)</td>
<td>15</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

A questionnaire that was given to participants via Google Forms was used to collect and analyze data on the use of assemblr Edu-based augmented reality. By using descriptive statistics, data are examined to establish the mean and standard deviation. According to the data above, the highest mean was 3.47 in item 2 "I am more motivated to learn English by using Assembler-Edu," while the lowest mean was 3.00 in item 4 "I have a high curiosity when using Assembler-Edu." Items 7 and 10 have the second-highest mean. "I am enthusiastic about describing objects with Assembler-Edu; I prefer describing objects with Assembler-Edu because it is more enjoyable." The data showed that students are enthusiastic about using Assembler Edu-based augmented reality. Indicating the use of Assembler Edu-based augmented reality as learning media is effective because it can increase student motivation to understand better and because the media showed the object that will be described in 3D views. The consequence is students are more involved and enthusiastic about learning, and the use of assembler Edu during the learning process is beneficial.
Table 2. Descriptive analysis of the item of students’ enthusiast

<table>
<thead>
<tr>
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<tr>
<td>2</td>
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</tbody>
</table>

Table 2 shows the students' responses to questions about their interest in using Assemblr Edu-based augmented reality. According to the data, students prefer augmented reality based on Assemblr Edu because it is one of the most enjoyable learning tools. Students' learning enthusiasts are also observed for each indicator of students' learning interest, including the results of the student's learning interest questionnaire with indicators of student involvement, implying that learning activities utilizing Assemblr Edu as a learning media can increase students' interest in learning. The Assemblr Edu application encourages student participation and facilitates students in using learning media. As a result, students' self-confidence emerges from their goals in describing an object. According to the results of the questionnaire on attitudes toward the use of Assemblr-Edu-based augmented reality, students find that describing an object in 3D views is more fun than describing an object in a book.

**Discussion**

Following data analysis and research implementation, the use of Assemblr Edu-based Augmented Reality is directly related to students' learning interests. According to (zeren & Top, 2023), students believed that augmented reality applications helped them to learn the subjects, providing active learning opportunities and helping in the implementation of abstract ideas. Similarly to this, the students were interested, and their creativity and enthusiasm were enhanced thanks to augmented reality.

Several studies have found that using Assemblr Edu-based augmented reality increases students' interest in learning. Augmented Reality provides numerous educational benefits, which can be summarized for students as follows: enjoyable courses, a reduction in increasing cognitive load, an increase in motivation and interest in the course, an increased opportunity to ask questions, an increase in interaction between students, new opportunities for individual learning, establishing abstract concepts, and rising to success (Kurubacak & Altinpulluk, 2017). These benefits include helping students develop creativity, enabling students to finish the course at their own pace, and guarantee optimal student participation.

The findings of the paper are consistent with those of (Menon et al., 2020), and augmented reality encourages the effectiveness of augmented reality as a learning medium because it heavily relies on visualization and realization of the concept. As a consequence, it is a learning media that facilitates students' learning and...
increases students' motivation. The benefit of Augmented Reality applications in learning English is demonstrated in improving student engagement and motivation because these media are regarded to be more effective and easy than conventional teaching techniques. The useful attitudes of the students may also contribute to the improvement in student satisfaction in line with the research conducted by (Geng & Yamada, 2020; Hsu, 2017; Lee, 2022)

**Conclusion**

The current study sought to ascertain the level of student enthusiasm for Assemblr Edu. The finding of this research concluded that the use of Assemblr Edu-based augmented reality is effective. The highest mean of 3.47 indicates that almost all of the variables of items have a positive perception as a learning media. It means that the media can help students learn, particularly when describing the appearance of an object in 3D views, where students are more interested in describing an object in line with research conducted by (Silva et al., 2015) when engaging in activities that integrate augmented reality into the lesson, students experience fewer anxieties and more enthusiasm, and joy.

The researcher concludes from the students' questionnaire that students believe that using Assemblr Edu-based augmented reality can help them learn English. Aside from that, students' responses show that they all agree that the Assembly-Edu application is entertaining. Following that, they believe that the Assemblr Edu application motivates and inspires them to learn English. Aside from that, because the scope of this research is still limited, in the future, it is hoped that further researchers will be able to refine this kind of study using various samples and instances. In suggestion, please describe your recommendation for further studies regarding your research implication.

**References**


TALAN, Tarik, Zeynel Abidin YILMAZ, and Veli BATDI. 2022. “The Effects of