Dynamic EFL learning application through assemblr EDU for student's creative writing

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ABSTRACT

Technological advancements hold immense potential for transforming teaching and learning, yet many students struggle to effectively harness digital tools, especially in creative writing. Assemblr EDU (edu.assemblrworld.com), an application that leverages 3D and Augmented Reality (AR) technology, enables users to craft interactive and engaging educational content. Despite its availability as a free resource, a persistent gap in students' digital literacy prevents them from fully exploiting tools like assemblr EDU for academic purposes. This study explores how assemblr EDU can spark interest in EFL (English as a Foreign Language) learning and elevate learning outcomes. Employing a qualitative descriptive approach, the research involved 38 university students and found that assemblr EDU significantly enhances the development of captivating, interactive learning materials. Students reported that visualizing characters and story elements through the platform made creative writing more enjoyable, effectively bridging the digital literacy divide while cultivating an immersive and motivating learning environment. Ultimately, this approach markedly improves students' creative writing abilities and overall EFL proficiency.

Keywords: *Assemblr EDU; Learning media; Creative writing; Online applications*

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1. Introduction

The rapid development of technology has presented various applications to support the development of education towards a better and more flexible environment. Apart from the demands and time changed dramatically, technological developments also represent the world and all its contents today to improve skills and be able to utilize existing resources in contributing positively in this digital era (Lastari & Arjulayana, 2022). The use of Internet technology in Indonesia and the world in general continues to grow, it has even become a lifestyle for some of the world's population also.

This condition certainly has an impact on human life patterns, including learning patterns that have provided many benefits to anyone who wants to learn via the internet or what is commonly called a media platform for learning or e-learning (Fahmi & Arjulayana, 2024). Otherwise, this demand changed the learning model in some universities in Indonesia, especially in University of Muhammadiyah Tangerang.

This change in learning model has become one of the targets of the Indonesian government in supporting digital learning (Gumilar et al., 2023). Thus, in almost all lessons lecturers have introduced several applications to be used in the learning process, as well as at Muhammadiyah Tangerang University Indonesia. The utilization of these digital applications is expected to encourage students' creativity in improving their digital literacy and language skills, such as writing and reading (Arjulayana & Srikandi, 2019). In line with this, the application of the assemblr EDU application has become one of the recommended applications in its use to encourage students in creative writing. Because, assemblr EDU as one of the dynamic applications can help students and lecturers to be more creative in expressing their ideas and ideas supported by existing images and videos. Through this application, students can design their power points in a more fun and colorful way.

Hence, From the previous research the utilize of assemblr EDU in teaching creative writing was very limited. Some research related to utilizing assemblr EDU were used in elementary or high school students with the targets is not for creative writing, but others knowledge/skills (Ahmad et al., 2022; Carrión et al., 2023; Lino Padang et al., 2021; Nurhasana et al., 2022). one of the previous researches with assemblr EDU for writing, but it was in Ecuador. The author tried to use this application as the material in teaching with 3D model (Carrión et al., 2023). Clear previous research can be seen from the chart below:
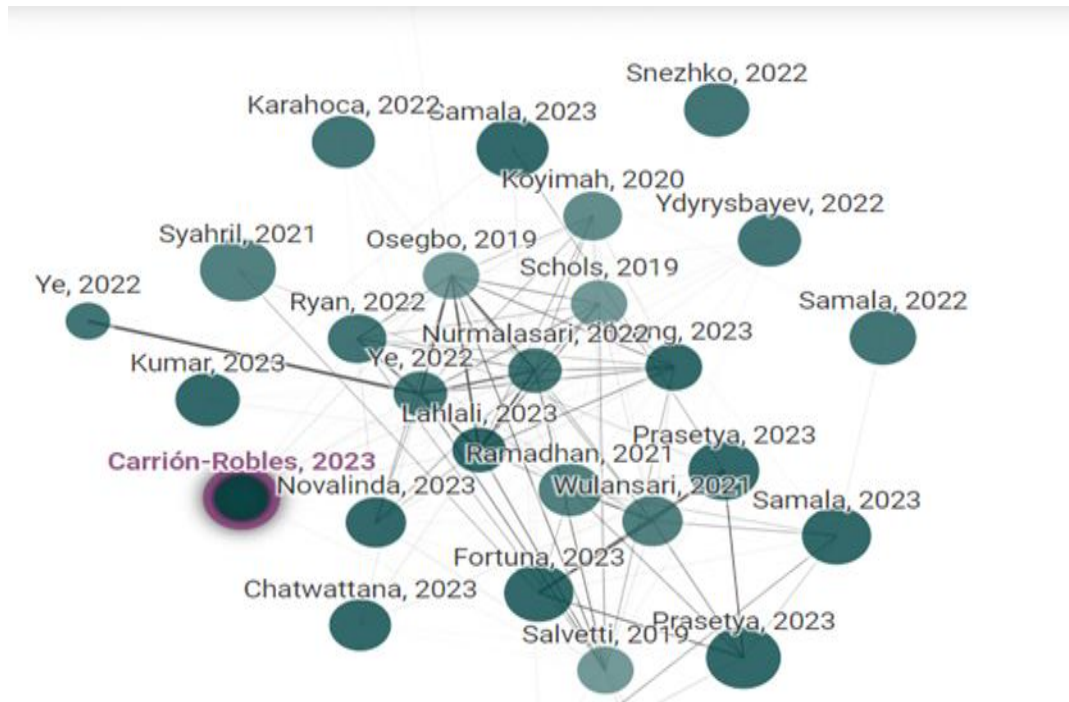
Figure 1. Landscape of previous research in utilizing assemblr EDU

Therefore, with the implementation of this digital application, students who have limitations in writing could be motivated well, and the lecturer should be able to find a way to boost students' motivation related to the digital era. Making something different from the habit in expressing ideas is one of the ways that can be used, for example by making ideas in the form of pictures, moving pictures, sound pictures or color pictures. At the end this work not only encourages student motivation to write but also encourages students to be more creative and visualize.

However, this study states that assemblr EDU is one of the excellent applications to be used in teaching students' creative writing. In addition, this application can be used for free and has many features that can be used to create ideas in a seemingly real form, namely augmented reality(Carrión et al., 2023; Hilman et al., 2023). Furthermore, this paper declares the research questions about; the benefits of using edu.assemblrworld.com for creative writing, and how is assemblr EDU helps students' creativity in writing?

2. Literature review

Understanding a theory related to research is a necessity, so that the research can be well understood by readers, so that later the research can be a reference for future researchers.

2.1. Creative writing

In simple terms, creative writing is a way of expressing feelings, ideas, and viewpoints in a most imaginative and creative style. According to Andini et al. (2020),

creative writing is a form of writing where creativity is at the forefront of its purpose through imagination, creativity, and innovation to tell a story through strong written visuals with an emotional impact. This is in line with Fortuna et al. research (2024) stating that creative writing is any form of writing which is written with the creativity of mind to express, whether it be thoughts, experiences, or emotions. Moreover, Ramet (2007) adds that "creative writing is having the power to create an imaginative, original literary production or composition". Based on the expert 's definition above, it can be concluded that creative writing is a personal activity that involves feelings, imagination, and creativity in writing that can be a work production so it can be read by readers.

Creative writing allows writers to write all types of writing freely without having to bother with academic words. "Creative writing is more than just words on a page; it is freedom" (Sydney, 2017). Creative writing is contrast to academic, technical, or news writing, which is typically dry and factual. This is supported by Pope's research (2019) that "creative writing is often seen as the opposite of journalistic or academic writing". In brief, creative writing is free-style writing without concerning the academic rules.

2.2. Types of creative writing

Creative writing can be found in several forms of writing, because this skill is also known as the experimental and innovative nature. Hence, to make a clear understanding, we can see some of the types of creative writing based on Durand et al (2020). The first is Poetry. Writers of verse have the freedom to experiment with less rigid forms like prose poetry or free verse, but many poets also work within structured traditions that make specific demands in terms of rhyme, rhythm, and subject matter. The key thing to remember with poetry is that there are really no rules. Otherwise, the writer is encouraged to express their ideas without limit.

The next part of creative writing can be found as a short fiction. Short stories should run under 7,000 words, even shorter stories (classified as flash fiction and micro fiction) emphasize the brevity of this narrative form even more, by telling stories in as few words as possible.

Hence, a novel is also known as a type of creative writing because it relies on following a narrative using prose and it also happens to have the most commercial power. Novellas and the even cuter-sounding novelettes are short and even shorter novels, the word count and narrative scope of which differentiate them from short stories. Some other creative writing forms can be found in Plays and Screenplays. It consists entirely of dialogue and stage directions. Scriptwriting is a type of creative writing that relies heavily on subtext. This type of writing is not intended for a reader but for other storytellers (directors, actors, designers, etc.) to use and interpret in their own creative work.

Some students also have done their creative writing through this assemblr EDU through representing the colorful writing, just like other creative writing types in comics, graphic novels, and graphic narratives (Göçen, 2019). Otherwise, creative writing with visual design through application also can combine the illustrations or visuals text, visual

modes and soundly to build convincing characters, descriptive narration, and multimodal creativity (Eriyani et al., 2021).

The last is personal essay, personal essays explore a person's thoughts and feelings on a personal matter. These essays typically use an artifact, book, or news development as a jumping-off point from which to widen the scope of their story (Savage, 2017). It can also include travel and food writing, as well as think pieces that rely heavily on a personal perspective.

2.3. Utilizing edu.assemblrworld.com

Edu.assemblrworld is the one-stop platform for students and teachers to enjoy learning in 3D and Augmented Reality (AR). With the help of Augmented Reality (AR) technology, teachers can present interactive lessons in 3D with photos, videos, and texts in a minute. Alternatively, find dozens of free lesson plans, modules, and educational contents readily available in the app. Assemblr Edu as a learning medium makes learning history more interactive, collaborative, and fun (Kurniawan et al., 2024; Sugiarto, 2021).

The influence of information technology growth tends to refer to developing people's innovation and creativity in the world of education to reform education and learning (Alfisuma et al., 2023). As known, that creativity and innovation are prerequisites for survival in the world of education, even more needed according to technological developments in digital age (Arjulayana, 2019).

One of the digital transformation efforts is related to the integration of computer technology with learning media as a supporting tool in achieving learning goals digitally (Fuadin et al., 2023; Wong et al., 2013) Learning media as a means for organizing the various information he has obtained visually and verbally. So, using appropriate learning media, can influence the interaction process and optimize communication in a learning goal.

Furthermore, the gap between ideal conditions and real conditions experienced by teachers and students in higher education during the utilization of digital technology platforms. Innovative learning media is needed to attract and motivate students in enabling visualize students' imaginations in expressing the ideas through creative writing in assemblr EDU. Through this application, it is hoped that it can assist teachers in processing abstract material into concrete realms, increasing understanding. Students also can connect the interrelationships between concepts of change and development of creativity and ideas of the real world independently, critically, and creatively through 3D viewing (Plate & Hutson, 2022).

2.4. The advantages of edu.assemblrworld.com

The advantages of assemblr EDU make it an excellent tool for enhancing the learning experience (Carrión et al., 2023). First, its use of visuals, such as 3D images and animations, is highly effective in capturing students' attention and sparking their curiosity, particularly for young learners who respond well to engaging visual content. These

visuals make lessons more interactive and enjoyable. Second, assemblr EDU simplifies complex and abstract concepts by presenting them in a more tangible and realistic way directly in the classroom. This approach helps students better understand challenging topics and improves their overall learning outcomes.

Additionally, assemblr EDU provides access to unlimited educational materials, including models, diagrams, and simulations, which are available free of charge. These resources cover a wide range of subjects taught in schools, ensuring that teachers and students have the tools they need to enrich their lessons (Prasetiawati et al., 2023). Furthermore, the platform encourages creativity and active participation through features like the AR Editor and scan-to-see tools. These features enable interactive, two-way learning activities, allowing students to think creatively and making learning experiences more meaningful and engaging.

3. Method

This research was conducted using the library research method or what can be called a qualitative method. This research is structured by them answering questions, with the aim of analyzing the effectiveness of learning using Augmented Reality for students. The analysis of the material in this study was taken based on students' understanding and experience in carrying out learning using the assemblr EDU. Data collection was carried out by filling out the questionnaires, and interviews. The research sample were 38 university students from 4th semester students from University of Muhammadiyah Tangerang who implemented the use of the assemblr EDU application as their learning media.

In the beginning, the researchers collected data using the questionnaire method with 10 questions using the Guttman scale, namely, "agree" and "disagree" and interviewed the lecturer who are implementing the assemblr EDU. The next step is to analyze the data that has been obtained and then present the research results. The research process can be seen as following:

Identification problems → Information review → Collect the data → Qestioner, Interview → Analysis data → Describing the research's result

Figure 2. Research processing

4. Findings and discussion

Media is a tool used to communicate information to students. The types of media used to communicate information to students include audio-visual media, audio, print, internet, games, teaching aids, and virtual reality. Utilization of learning media can help students understand the concepts conveyed more effectively, and make the learning process more interesting and enjoyable.

The era of globalization has brought the use of technology to have a significant influence on the development of various fields, including education. Examples of the use of technology in the education sector include learning media, administrative tools, and learning resources (Lestari, 2018). The use of technology in learning can help improve the quality of learning, encourage the active participation of students, and increase the effectiveness of learning activities. This is in line with Kosasih's view (2015) which states that the use of technology is one of the solutions in improving the quality of the learning process in the classroom. One of the uses of technology as a learning medium is assemblr EDU.

4.1. Edu.assemblrworld helps students' creative writing

The questionnaire data consists of 10 questions with open-answer forms. This questionnaire was distributed to 38 university students. The questionnaire based on their experience using assemblr EDU, and can be seen in the graph below:
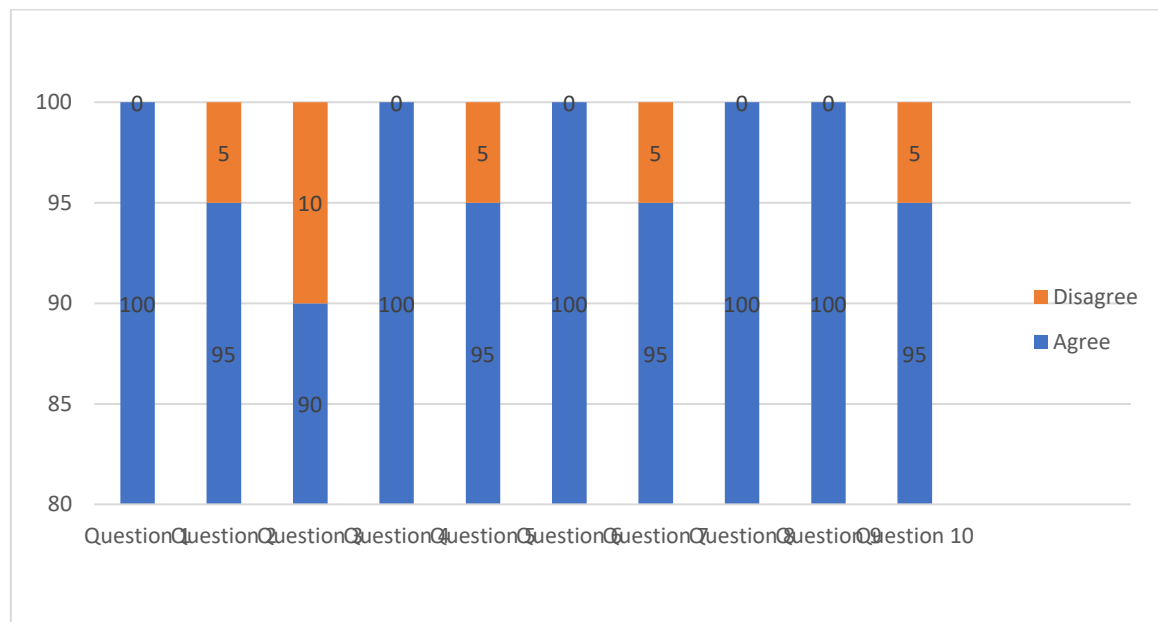

Figure 3. Data interviews about using assemblr.edu

Based on data analysis, it was found that almost all respondents chose to agree that learning using the assemblr EDU platform as their learning medium. This can be seen from the percentage data with 95% of respondents stating that assemblr EDU was categorized as a learning medium that was able to support students' creativity from text and provide new experiences in learning. Meanwhile, through this application students can motivate themselves in presenting their imagination and accelerate their achievement in writing skills on the platform (Lastari & Arjulayana, 2022). So, it is understandable why finding ideas in writing is also important to explain visually in this textbook, because expressing the ideas through experience, observation, and imagination can give comprehensive understanding to the reader (Hortin, 1983). Through visual aids in

describing experiences also can motivate learners to boost their reading habit (Barani et al., 2010; Jewitt, 2008).

Utilizing assemblr.edu platform for learning is also quite hard for 5% respondents. They argue to state the agree statements on this, due to their capability in utilizing the application and demotivation on internet access or quota. The perception of each student is different, they are more interested in learning by using the direct reading method or methods with other platforms. It seems the use of application in students' creative writing still has obstacles. Hence, the simple way to use this also needs to be conducted with slowly and clear instruction for unmotivated students in utilizing digital(Hoe, 2020; Nuraini et al., 2024).

In addition, teacher's interview also in line with the student's result that almost 80% of student's can enhance their creative writing through assembler Edu with the special feature it called augmented reality. otherwise, several literature studies show that AR systems can support and enhance various pedagogical approaches. Samala et al., (2023)Some pedagogics learning ways can be supported by AR, such as: 1) Constructivist learning by using AR by encouraging students to engage at a deeper level with the tasks, concepts and resources learned using layers of information, students can make deep and lasting connections in their knowledge base. 2) Localized learning authentic and contextual learning is possible to embed educational experiences in a real-world environment and by bringing the real world into the classroom. 3) Game-based learning. Other advantages of AR media can be used to facilitate immersive game-based learning by creating digital narratives, placing students in roles, providing authentic resources, and embedding contextually relevant information. 4) Inquiry-based learning – by offering a means to collect data electronically for future analysis and providing virtual models situated in a real-world context that are easy to manipulate AR supports inquiry by providing information that is contextually relevant to the topic being investigated (Rosyidah et al., 2023). The use of AR technology-based media will create a fun, interactive atmosphere, and will provide challenges and motivation for students (Hakim, 2018). Even so, behind the many advantages of using AR media there is a threat of students' dependence on technology and external risks (Banks et al., 2019).

4.2. Utilization of assemblr EDU as a creative application

The use of assemblr EDU in stimulating creativity for creative writing has shown great changes. This can be seen from the participation of students in submitting assignments and responding to conversations via the application which has been made a special class by the lecturer. It can be said that the use of the right application can motivate students to be more creative and think ahead according to their targets in learning also. As one of the apps that has multimodal features, students find learning creative writing more fun, so that in the learning process students are more active in using their affective and psychomotor (Chairudin et al., 2023; Ningtyas, 2022).

Of the 38 samples, 100% of them were able to express their creative ideas through writing both in the form of moving images, writing texts complemented by static images and telling stories in the form of graded images in accordance with the theory of scaffolding learning for English as a foreign language. Here is one of the results that can be seen below;
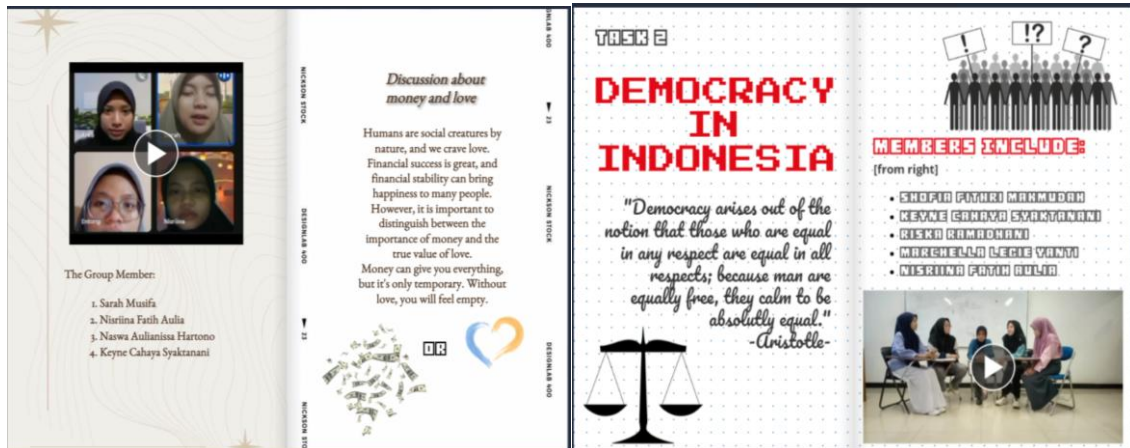

Figure 4. Students creative writing through assemblr EDU Application

In addition, during the learning process, through the application of assemblr EDU, 21st century learning that is known as 4C can be easily applied. Collaboration, students can work together with other friends and discuss related tasks given through the application. Critical Thinking, students become more critical in analyzing the information they get and pour it in the form of text, images, and other moving videos through the application. Creativity, can be applied well when students are able to create comprehensive stories by including text and images through the application, and Communication is also mastered by students when they are required to describe what they tell through the application in the form of oral communication and written communication (Gu et al., 2014). This application is available online and offered for free use.
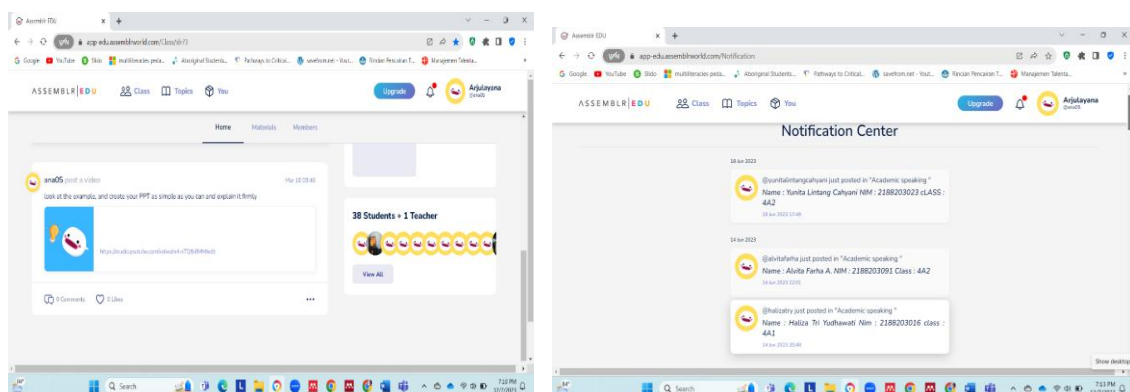

Figure 5. The overview of assemblr EDU as the creative application

5. Conclusion

Drawing on prior research articles and journals exploring the assemblr EDU application as a learning tool, this platform emerges as a valuable solution for developing educational media that enhance the quality of the learning process, improve outcomes, and boost student motivation. Assemblr EDU is particularly effective as a medium for various subjects, enabling users to create three-dimensional content visualized in a realistic manner. This functionality simplifies the delivery of complex concepts for teachers while making them more accessible and comprehensible for students. The integration of Augmented Reality (AR) technology in developing learning media further enriches this process by fostering interactivity. AR's ability to present real-world scenarios in 2D and 3D formats allows students to engage directly with the material, enhancing their understanding and retention. Consequently, the use of assemblr EDU as a learning medium stimulates students, leading to improved academic performance in specific subjects. Eventually, employing creative writing techniques through assemblr EDU significantly enhances students' writing skills, including their ability to craft content, structure material, and design layouts. Moreover, it markedly boosts student creativity. Evidence suggests that students taught with the assemblr EDU application exhibit superior writing abilities and heightened creativity compared to those who are not. Thus, creative writing techniques facilitated by this tool prove highly effective in advancing students' writing proficiency.

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