# Development of Genially-based history learning media to increase learning interest of senior high school students

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| ARTICLE INFO | ABSTRACT |
|---|---|
| | This research aims to (1) produce Genially-based history learning media, (2) determine the feasibility of Genially-based history learning media, and (3) determine the effectiveness of Genially-based history learning media on student learning interest. This research is a Research and Development (R&D) study that uses the 4D development model. The research subjects were 74 students of class X SMA Negeri 1 Indralaya and SMA Negeri 1 Indralaya Utara using a pre-experiment model of one group pretest-posttest design. Data collection instruments included expert, teacher, and student assessment questionnaires and a questionnaire of student interest in Genially-based history learning media. Data analysis used paired sample t-test analysis. The results of this study are (1) a product in the form of Genially-based history learning media about Hindu and Buddhist Kingdoms in Indonesia, which contains elements of text, audio, images, video, animation, and games; (2) the average score obtained from material experts on Genially-based history learning media is 4.53 (very good), and the average score from media experts is 4.43 (very good). The average score of the history teacher is 4.57 (very good). Meanwhile, the results of the limited trial obtained an average score of 4.23 (very good), and the broad trial obtained a score of 4.41 (very good) so that the Genially-based history learning media is feasible to use; (3) the product developed by researchers is effective for increasing student interest in learning known from the results of the paired sample t-test which proves that the value of Asymp. Sig. (2-tailed) value of this study is 0.000, which is smaller than 0.05. This research contributes to improving the quality of education and student learning outcomes. |

## INTRODUCTION

The progress of the current digital era is marked by the rampant use of technology in various aspects of human life, including education (Kartini & Anggraeni Dewi, 2021; Kholifah, 2022; Kusnandi, 2019; Suryadi & Mushlih, 2019). Technology can support the learning process (Rachmadtullah et al., 2022). technology can make it easier for teachers to make learning devices, especially learning media. As stated by Suplianto (2022), using learning media can make it easier for students to learn subject matter at school, including historical events, and increase student interest in learning. The richness of material in history subjects requires media that suits the needs and characteristics of students so that students can learn history more enjoyably and take the positive values contained in it (Fitri & Yefterson, 2021).

Based on observations in class X of SMA Negeri 1 Indralaya and SMA Negeri 1 Indralaya Utara Ogan Ilir Regency, when the history learning process was underway, it was seen that there were still students chatting and sleepy. Students also look less enthusiastic, and only a few people are willing to answer questions from the teacher and conclude the material that has been learned. As for the questionnaire results, more than 50% of students consider history learning less interesting and have yet to increase their interest. One of the materials considered less interesting and poorly understood by grade X students of SMA Negeri 1 Indralaya and SMA Negeri 1 Indralaya Utara is material about Hindu-Buddhist kingdoms in Indonesia. This condition needs to be considered considering the importance of studying history. As stated by de Saint-Laurent and Obradović (2019), history can be used as a source of information on past events that can be used as learning in the present and the future, including Hindu-Buddhist kingdom material.

The material of Hindu-Buddhist kingdoms in Indonesia is considered less attractive by students of SMA Negeri 1 Indralaya and SMA Negeri 1 Indralaya Utara because this material is quite dense and considered less impactful to life today. Students also prefer learning that uses media, especially interactive, contemporary, and diverse media, so that learning is more fun and not monotonous. However, the availability of available learning media is still limited. Researchers also interviewed history teachers because, as Hilir (2021) stated, teachers have a strategic role in developing an idea to implement the learning process. Based on the results of interviews, teachers tend not to maximize the use of media in history learning. Teachers usually only use media in general in the form of maps, PowerPoint, and videos downloaded from YouTube. This is due to the limited capacity of teacher laptop devices, making it difficult to download new applications to create more diverse media.

Based on various data that have been obtained through questionnaires addressed to students, interviews with history teachers, and direct observations in grade X of SMA Negeri 1 Indralaya and SMA Negeri 1 Indralaya Utara shows a tendency that there is still a low interest in learning by students in history subjects and the urgency to develop a learning media to meet the needs and characteristics of students. However, the limitations possessed by teachers should also be noted. To overcome this, researchers try to take the middle way by developing historical learning media using online-based applications, namely Genially. This is because Genially can produce a learning media that is more interactive, contemporary, and interesting, and teachers do not need to download new applications on their laptop devices because they are website-based (Lin & Jou, 2012; Sanchez & Plumettaz-Sieber, 2019; Suartini et al., 2022; Togas et al., 2021; Yin et al., 2009).

Genially is a platform that can be used to create accessible, practical, and flexible online-based media. This application was released in 2015 in Cordoba, Spain, and can create about 25 types of business, media, or teaching projects. In addition, Genially received the Global Edtech Startup Award (GESA) for the technology and education category at the London BETT Show. The Genially platform has several advantages, including presenting exciting learning materials, including text, images, video, audio, animation, and interactive games. In addition, it can be used on all computer devices, laptops, and smartphones because the devices owned by students are diverse. This is also very advantageous because it does not require teachers to download a new application. The Genially platform also provides ambassadors in various countries, including Indonesia.

Ambassador Genially is tasked with providing education to its users, especially new users Genially. Ambassador Genially provides information related to using Genially and video tutorials on its use. One of the popular Genially Ambassador sites is Mr. Eric Kunto Aribowo's Genially Learning Portal. This can help teachers to understand Genially faster and create better Genially learning media. Teachers can be creative in making media as well as being able to develop the creative side of the teacher concerned. Moreover, it has a reusable feature that allows teachers to collaborate with other teachers, students, or other Genially users to create engaging, current, and interactive learning media jointly.

Media Genially has never been used and developed at SMA Negeri 1 Indralaya or SMA Negeri 1 Indralaya Utara. The development of this learning media is expected to help teachers and grade X students of SMA Negeri 1 Indralaya and SMA Negeri 1 Indralaya Utara in the learning process and increase students' interest in learning history subjects. This paper is written to develop Genially-based history learning media and measure their effectiveness on student learning interests.

**METHOD**

This research is Research and Development. Research and development are scientific ways to research, design, produce, and test the validity of products (Sugiyono, 2018). This research is used in developing and validating educational products, processes, products, and designs (Setyosari, 2016). This research began with research through literature studies and direct observation. Furthermore, development uses a development model. The development model used is the 4-D model (four-D models). The 4-D model proposed by Thiagarajan consists of four stages of development: define, design, develop, and disseminate (Fadillah, 2017).

This research was conducted in two schools, namely SMAN 1 and SMAN 1 North Indralaya. Both schools have implemented the Merdeka Curriculum, accredited A, and are equipped with facilities supporting IT-based learning. The sample of this study amounted to 74 students consisting of 36 students of grade X1 SMAN 1 Indralaya and 38 students of grade X2 SMAN 1 North Indralaya using a pre-experimental model of one group pretest-posttest design. Data collection instruments include questionnaires assessing Genially-based historical learning media for media experts, material experts, teachers, and students and questionnaires of student learning interests. Data analysis using paired sample t-tests was previously preceded by validity, reliability, normality, and homogeneity tests.
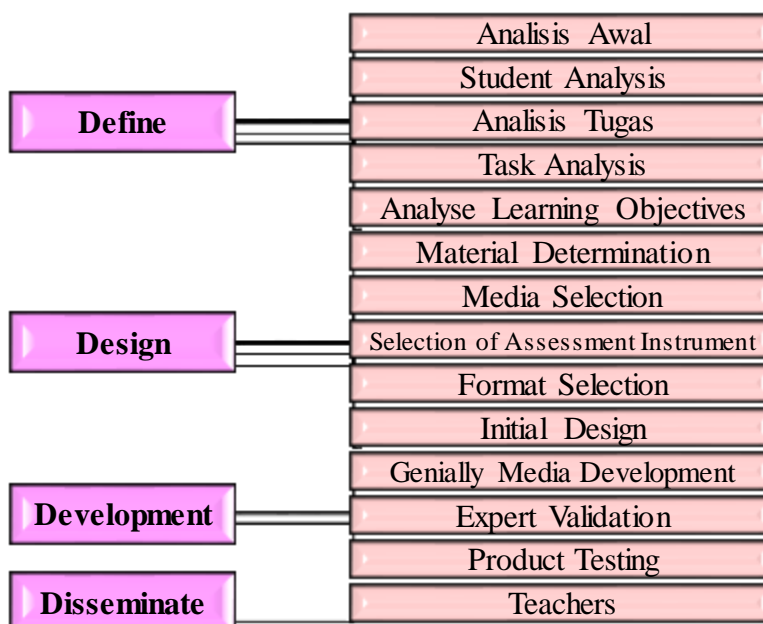


Figure 1. Development Procedure

**RESULTS AND DISCUSSION**

**Genially-Based History Learning Media**

The research and development process of genetics-based history learning media will be conducted from August 2022 to March 2023. The development model used is the 4D model, which consists of define, design, development, and dissemination stages. Learning media development is done using Genially, accessed online, and is free. Learning media is made with various features contained in Genially such as by inserting text, images, videos, animations, and audio. In addition, making interactive games is also done using the features in Genially because, according to Clark and Mayer (2016), learning by using games is better than conventional learning. This aims to make it easier for students to understand and create a more enjoyable learning process. In addition, some additional applications are also used, such as YouTube and Hyzine Flipbook. Genially-based media can be operated on smartphones, tablets, computers, and laptops.

### Initial Section

Figure 2 shows the initial part of the developed genetics-based history learning media. This display is titled "Hindu and Buddhist Kingdoms in Indonesia" and has a background illustration of Buddhist statues. It is equipped with illustrations of the Prambanan Temple and Borobudur Temple on the lower left and right sides, as well as the Universitas Negeri Yogyakarta logo and the Tut Wuri Handayani logo at the top, and accompanied by the Gending Sriwijaya song instrument. In addition, there is also a home menu, instructions for using the media, and learning objectives accompanied by audio explanations.



Figure 2. Product Start Display

### Contents Section

In the content section of the developed genetics-based history learning media, there is a list of material and content pages. Audio explanations also accompany this section. The materials in this media consist of eight materials. Each material consists of three phases, starting from the establishment, development, and end of the kingdom. This section also has audio, images, and videos supporting the material displayed. The display of the product content section can be seen in Figure 3 and Figure 4.



Figure 3. Display of the Product Contents Section 1

Figure 4. Display of the Product Contents Section 2

### Final Section

There are summary, evaluation, reference, and profile pages on the final page of the developed genetics-based history learning media. The summary page contains the key points of the material, and the Tanah Airku song instrument accompanies this page. The evaluation page contains questions related to the material on the Genially-based learning media. The questions are packaged as interactive games made using the features in Genially. The reference page consists of a list of books and journals used to create the material in the media. The profile page contains brief data from the researcher. The appearance of the final product page can be seen in Figure 5.
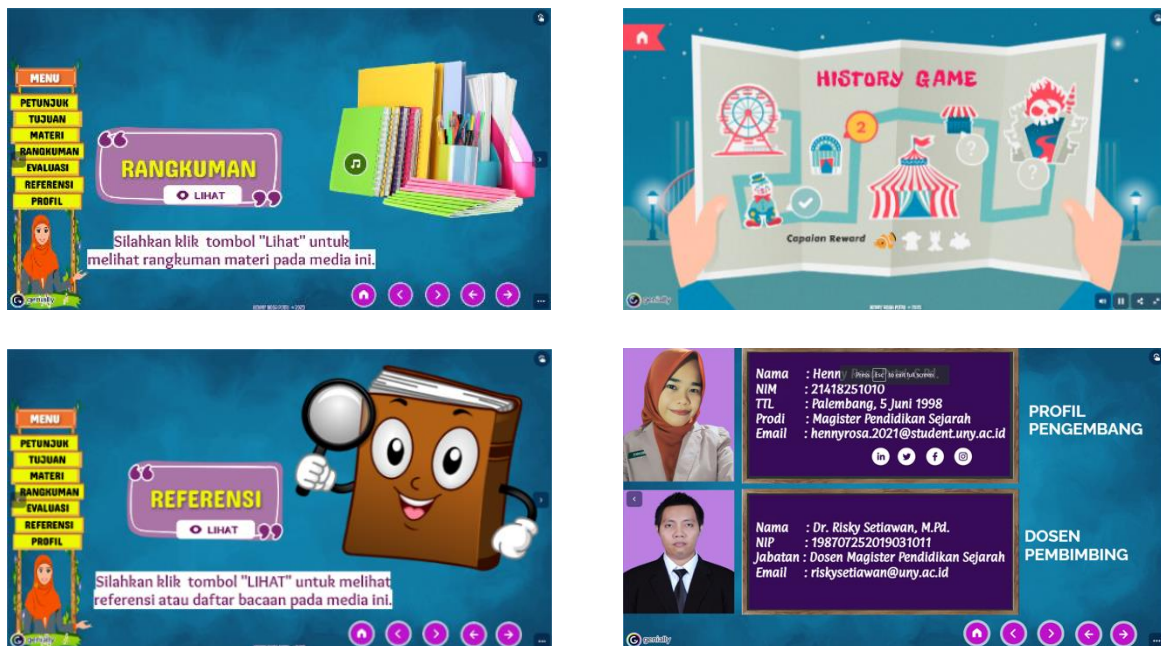


Figure 5. Last Page Display of Developed Products

### Feasibility of Genially-Based History Learning Media

Testing the feasibility of products developed in genetics-based history learning media is conducted through an assessment stage involving material experts, media experts, and history teachers as practitioners. Two material experts conducted the material assessment. Material experts' assessments, comments, and suggestions are considered in product revision. At the material expert validation stage, the results showed that the two experts' average assessment of the material content's quality indicators received an average score of 4.50 and was included in the very good criteria. The indicator of the completeness of the content of the material received an average score of 4.63, and language and typography received an average score of 4.38, so both were included in the very good criteria, and the indicator involving students received an average score of 4.63. The learning interest indicator received an average score of 4.50, so both were included in the excellent criteria.

Suggestions and comments given by material expert I include: (1) it is necessary to add the genealogy of the ruler, (2) the map must accompany the location, (3) each paragraph must have a source, and (4) questions must enter the realm of C3, C4, and C5, (5) correct typing errors. The suggestions and comments from material expert II include: (1) the word birth should use the word established, and (2) the space in the bibliography should be two spaces, preferably one space.
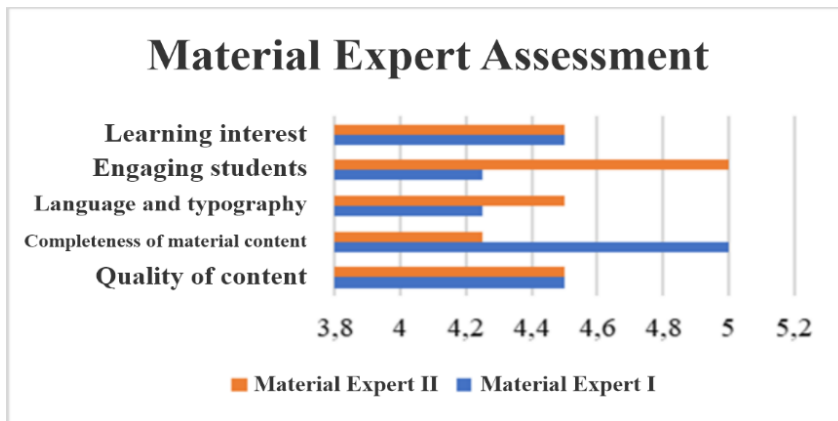


Figure 6. Material Expert Assessment

Testing the feasibility of products developed in genetics-based history learning media is conducted through an assessment stage involving material experts, media experts, and history teachers as practitioners. Two material experts conducted the material assessment. Material experts' assessments, comments, and suggestions are considered in product revision. At the material expert validation stage, the results showed that the two experts' average assessment of the material content's quality indicators received an average score of 4.50 and was included in the very good criteria. The indicator of the completeness of the content of the material received an average score of 4.63, and language and typography received an average score of 4.38, so both were included in the very good criteria, and the indicator involving students received an average score of 4.63. The learning interest indicator received an average score of 4.50, so both were included in the excellent criteria.

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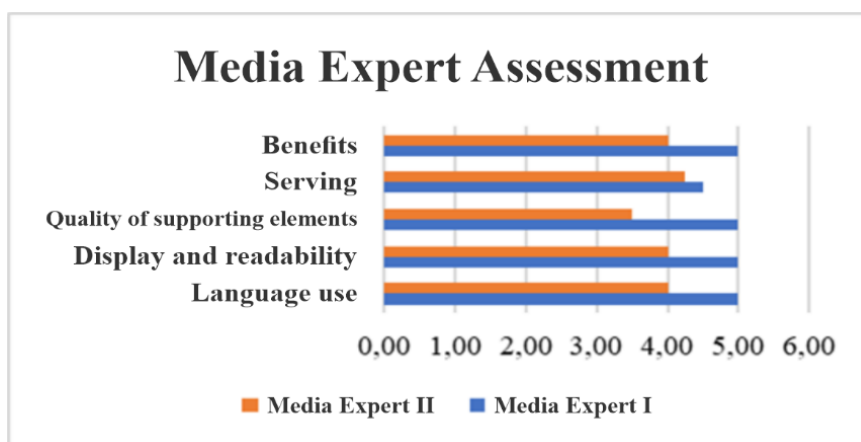


Figure 7. Media Expert Assessment

Suggestions and comments from media experts I include: (1) the summary cannot be opened yet, (2) PDF books should be layout, (3) add a supervisor profile, (4) customized font type, and (5) customized image color. Omentar and advice from media experts II include: (1) In the active and effective sentence instructions section (the word should be omitted; (2) In the material, there is no video. It should be added to the learning media, and (3) Flipbook/ebook is already interesting but needs a barcode/video link, or use the zine flipbook application on Canva integrated with YouTube. The results of comments and suggestions given by media experts for the improvement of Genially-based historical learning media products that were developed; improvements were made to the media.

The improvements made include several things, namely as follows: (1) improving the summary so that it can be opened, (2) doing layouts on PDF books, (3) adding supervisor profiles, (4) adjusting font types, (5) adjusting colors in images, (6) changing sentences in the instructions section so that they become active and effective sentences, (7) adding to learning media, and (8) using the Heyzine flipbook application on Canva which integrates with YouTube. Based on the assessment results by media experts, the product in the form of a genially-based history learning medium was declared "very good," so it was feasible to be tested as a historical learning medium.

Furthermore, an assessment was conducted by two history teachers. Teachers' responses to the Genially-based history learning media developed were based on the quality of the material, presentation, language use, supporting elements' quality, appearance, material content's completeness, and benefits. Researchers asked for help from two history subject teachers to assess the quality presented in the developed learning media. The quality of the material received an average score of 4.67 or included in the very good criteria. At the same time, the presentation got an average score of 5.00 and was included in the very good criteria. The use of language received an average score of 4.50, and the quality of supporting elements received an average score of 4.34, with a very good category. The display received an average score of 4.17 with a good category. The completeness of the material content received an average of 4.50, while the benefits received an average of 4.84 with a very good category.

Comments and suggestions from teachers include: (1) Add a Genially button on the start page of each kingdom, and (2) The link on the map should go directly to the map image to avoid confusing students. Based on the results of suggestions and input provided by teachers for improvement and revision of the Genially-based history learning media developed, improvements were made to the product. The improvements made include (1) adding a genealogy button on the home page of each kingdom and (2) making a link on the map directly to the map image. Based on the teacher's assessment, the Genially-based history learning media developed in this study has fulfilled the criteria, so it is feasible to be trialed as a history learning media.
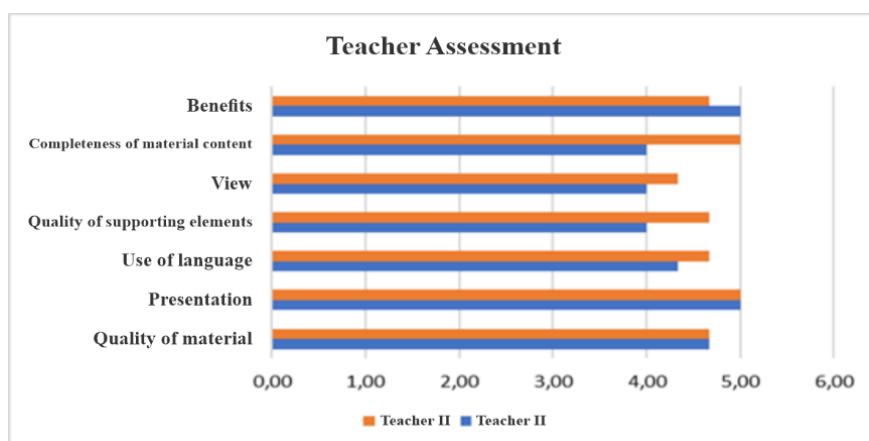


Figure 8. Teacher Assessment

The limited trial was conducted on 30 students. Students were given the product to provide input and suggestions on the product that had been developed. Students' responses to Genially-based

history learning media are based on the quality of media and materials, including readability, presentation, language use, quality of supporting elements, benefits, quality of material content, completeness of material content, and interest in learning. Comments and suggestions given by students include 1) a glossary should be added to the material list page, and (2) the summary should also be given accompanying music. In the limited trial of 30 students, students got an average score of 4.23, and the product at this stage was included in the excellent criteria. In comparison, in the broad trial of 74 students, they got an average score of 4.41 or included in the excellent criteria, and there were no suggestions. Based on the two assessments from the limited trial and the broad trial, it can be concluded that the product developed by the researcher is suitable for use.
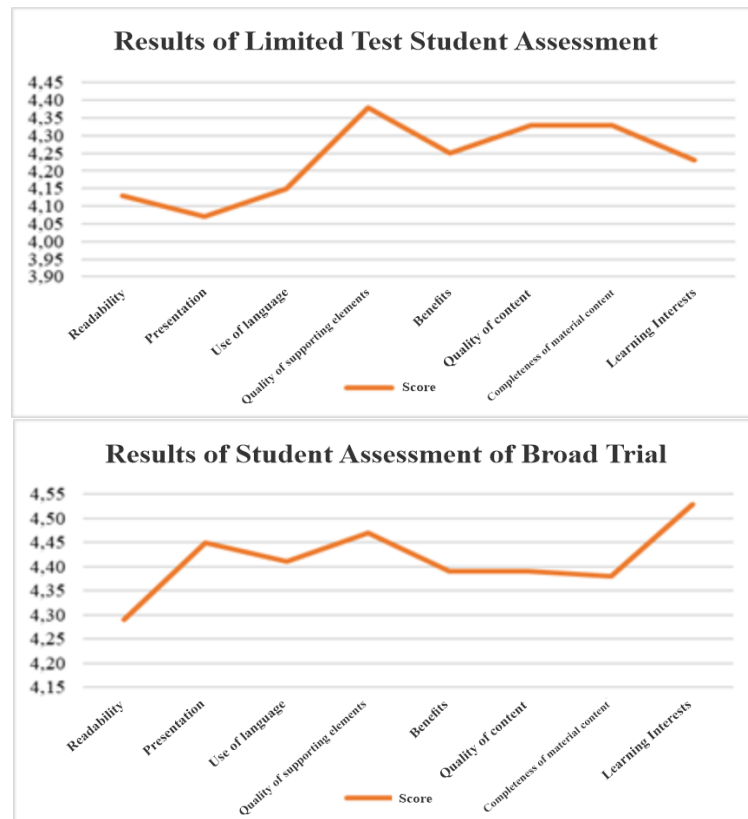


Figure 9. Student Assessment

## The Effectiveness of Genially-Based History Learning Media

Researchers tested the effectiveness of Genially-based history learning media products on students' interest in learning history. This test involved students of class X1 SMA Negeri 1 Indralaya and X2 SMA Negeri 1 Indralaya Utara using a questionnaire containing 20 statements. Expert Judgement has previously validated the student interest questionnaire and stated that the questionnaire is valid and suitable for use. In addition, before the questionnaire was used in the field trial, the researcher also tested the validity and reliability of the questionnaire to students. The questionnaire was used as a data collection instrument to see the product's effectiveness on students' interest in learning.

Based on data analysis using the help of the SPSS 26 application, it is known that the average student interest score before the experiment was 52.80. After the experiment, it is known that the average student interest score increased to 81.93, while the paired sample t-test results also prove that the Asymp. This study's Sig (2-tailed) value is 0.000, which is smaller than 0.05. This means that Ho is rejected, and Ha is accepted. This shows that using Genially-based history learning media effectively increases high school students' interest in learning.

**Kolmogorov-Smirnov[a]**

| | Statistic | df | Sig. |
|---|---|---|---|
| Sebelum | .079 | 74 | .200* |
| Setelah | .072 | 74 | .200* |

**Test of Homogeneity of Variances**

| | | Levene Statistic | df1 | df2 | Sig. |
|---|---|---|---|---|---|
| Variabel | Based on Mean | 3.299 | 1 | 146 | .071 |
| | Based on Median | 3.288 | 1 | 146 | .072 |
| | Based on Median and with adjusted df | 3.288 | 1 | 145.919 | .072 |
| | Based on trimmed mean | 3.292 | 1 | 146 | .072 |

**Paired Samples Test**

| | | Paired Differences | | | | | t | df | Sig. (2-tailed) |
|---|---|---|---|---|---|---|---|---|---|
| | | Mean | Std. Deviation | Std. Error Mean | 95% Confidence Interval of the Difference | | | | |
| | | | | | Lower | Upper | | | |
| Pair 1 | Sebelum - Setelah | -29.13514 | 11.43693 | 1.32952 | -31.78486 | -26.48541 | -21.914 | 73 | .000 |

Figure 10. Results of the Student Learning Interest Effectiveness Test

The results of the research are in line with several previous studies, although there are differences in terms of content, subject, and method. Cabrera-Solano's (2022) research explains that Genially can increase student interest and creativity. The results showed that 75% of students stated that Genially could improve concentration, and 81.4% stated that Genially was easy to use and interactive. This also aligns with Jiménez et al. (2020) research, who concluded that Genially makes learning very interesting.

The use of Genially that can increase learning interest is inseparable from its interactive characteristics (Asmawati, 2020; Cabrera-Solano, 2022; Hidalgo & Enciso, 2023; Montesdeoca-Silva & Enciso, 2023). Research conducted by Díaz-Sainz et al. (2021) states that Genially is online software designed to create interactive content, whether in the form of presentations, infographics, interactive images, quizzes, or maps that can be shared via email, social media, blogs, moodle, and others. Media products such as those developed by researchers, including computer-based media, can help the history learning process, especially to increase students' interest in learning. This is in line with research conducted by Priskila et al. (2018), which explains the effectiveness of test results through a t-test, which shows that the use of computer-based media can increase interest in learning history.

Based on the research results conducted by researchers and previous researchers, the urgency of using learning media in the current era is shown. This is supported by research conducted by Akrim (2018), which explains that in the digital era, teachers must use modern learning media to make the learning process more interesting and interactive so that it can increase student interest in learning.

Teachers must utilize modern learning media in the digital era to make the learning process more interesting and interactive, thus increasing students' interest in learning (Harahap et al., 2023; Puhka et al., 2023; Semina & Semin, 2023). Interactive media, such as comprehensive design and user instructions, can make the instructor's work easier and promote autonomous learning among students (Katona et al., 2023). Visual learning media can also increase student motivation and make learning more interesting (Riska et al., 2023). In addition, the development of technology has led to the emergence of various digital technologies that can be used in teaching to improve the efficiency of the educational process. In addition, technology can help teachers become more confident and effective in teaching, transforming classrooms into creative and innovative learning spaces.

## CONCLUSION

The resulting product is in the form of Genially-based historical learning media about Hindu and Buddhist Kingdoms in Indonesia, which contains elements of text, audio, video images, animation, and games. The finished product is then tested to determine its feasibility. Assessments from subject matter experts fit into the "excellent" criterion with an average score of 4.53. Media

experts fit into the "excellent" criteria with an average score of 4.43. Assessment of Genially-based history learning media by history teachers as practitioners went into the "excellent" criterion with an average score of 4.57. The product went into the "excellent" criteria on limited trials with an average score of 4.23. In the extensive trial, the rating obtained for the product was 4.41 and entered the "very good" criteria.

The products developed effectively increase the interest in learning the history of X students of SMA Negeri 1 Indralaya and SMA Negeri 1 Indralaya Utara before and after the learning media is used in class. This can be seen from the achievement of students' interest in learning history, which was 52.80 to 81.93 after using Genially-based learning media. This is then reinforced by a paired sample t-test proving the Asymp's value. This study's sig (2-tailed) was 0.000, which is less than 0.05, indicating a significant increase in interest in learning.

This research can be a reference for teachers to take advantage of innovations in Genially-based learning media. For students, the product developed by researchers can be one of the media optimized for independent learning, especially on Hindu and Buddhist kingdom material in Indonesia. Students who are usually close to the world of gadgets can use their gadgets to learn history anywhere, anytime, and have more fun through genially-based history learning media. However, students still need to explore other learning resources. For other researchers, the research and development results on Genially-based learning media products need further study, such as measuring their effectiveness in improving student history learning outcomes.

## ACKNOWLEDGMENTS

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