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Article

Validity of GEGANA with the Assistance of Canva and YouTube to Improve Understanding and Learning Quality

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ABSTRACT

The need for interactive digital learning media is needed, especially on the material of motion, force, and pressure. GEGANA is a SAC (Smart Apps Creator) based learning media designed with the help of Canva and YouTube platforms. The purpose of this study was to determine the validity of GEGANA. The method used is descriptive qualitative . The method begins with a needs analysis using literature studies and interviews. The results of the needs analysis were used as the basis for developing GEGANA. The validity data was collected through a questionnaire given to respondents to evaluate the quality of the media based on five aspects, namely language, material, media, technology and design. The validity results were calculated using percentages and analyzed descriptively. The results showed 100% language aspect with excellent category, 93.75% material with excellent category, 81.25% media with excellent category, and 75% technology and design aspects with good category. The validity results show that the highest percentage is the language, material, and media aspects and the lowest is the technology and design aspects. Thus GEGANA is proven valid to be continued to the next stage with revisions as suggested. GEGANA's future development will focus on technology and design aspects.

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INTRODUCTION

The need for interactive and effective digital learning media is increasing, especially in learning the concepts of motion, style, and pressure. Learning media is a tool that supports the teaching and learning process. Anything that can be used to stimulate students' emotions, attention, abilities or skills through communicative activities and can stimulate the teaching and learning process can be called a means of learning. In the development of education, educational media is used as a learning resource that can provide real understanding to students. The type of media that is widely used in learning activities is multimedia. Various multimedia

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studies need to be studied in order to contribute greatly to the achievement of learning goals and the latest technology needs to be adapted. The need for the increasingly rapid development of science and technology in the field of education must encourage users and developers to think and act logically to minimize the problems that arise, so on that basis there is a need for innovative solutions. (Puspitasari et al., 2022)

Students often have difficulty understanding these abstract concepts if they are only conveyed through conventional learning methods. Technology-based learning media is a potential solution to overcome this problem, by utilizing interesting and easily accessible visualizations. Learning media based on android applications have several advantages. According to Hakim, these advantages include being practical when carried, connected to the network when needed, and accessible anywhere as long as there is access to adequate wifi or data cables. In addition, this learning medium is also flexible in accessing learning resources and encouraging closer communication, involvement, and activeness of students. Affordable prices are also its main advantage (Hakim, 2018). The ease of creating educational applications has also garnered support from various parties. Learning messages can be stored in the long-term memory of individuals who are learning because android-based learning media can be designed with a maximum visual approach. (Khasanah & Rusman, 2021)

GEGANA is a SAC (*Smart Apps Creator*)-based learning media designed with the help of Canva and YouTube platforms. The education platform through information technology is expected to improve the quality of education, become more efficient and effective, and ultimately improve teaching and learning outcomes. The existence of an educational platform that utilizes information technology will give rise to a new paradigm in the field of education, this new paradigm connects machines with humans. People with intellectual disabilities must be able to use machines as teaching aids, which is called learning disabilities. The paradigm shift is the innovation of educational media in educational media that utilizes information technology. (Suprapto, 2012)

This media was developed to improve students' understanding of motion materials, styles, and pressures with a more visual and interactive approach. The use of digital media such as GEGANA is expected to improve the quality of learning by providing a more effective learning experience. In the use of information and communication technology for learning media, there are goals and benefits that must be considered. According to Shodiq Anshor (2018), the use of information and communication technology in learning has several main functions which include: (1) Information technology has a function as a tool which means that technology can be used to help the learning process of students and educators. For example, in creating administrative programs, creating graphs, and creating databases, information technology has a function as a science, which means that information technology can be used to obtain all kinds of information and become part of the discipline that students must master. For example, in the 2006 curriculum there are information technology subjects; Information technology has a function in learning as a learning resource and learning medium to help the learning process of students and educators. (Widianto, 2021)

This study aims to test the validity of GEGANA learning media in improving student understanding and learning quality. The question asked in this study is: How valid is SAG-based GEGANA learning media with the help of Canva and YouTube in improving student understanding.

METHODS

The development of GEGANA learning media is based on the need to improve students' understanding of motion materials, styles and pressures through SAC (Smart Apps Creator)-based media designed with the help of the Canva and YouTube platforms that are interactive and in accordance with technological developments. This research uses a qualitative

descriptive method that is carried out from potential and problem steps to validation. (Putri et al., 2023) GEGANA is designed to meet feasibility standards in terms of language, materials, media, technology, and design that are relevant to the needs of modern education. The research began by conducting a needs analysis through literature studies and interviews to identify needs related to the development of GEGANA learning media. The results of this needs analysis then became the basis for developing GEGANA's initial products, which were focused on five important aspects, namely language, materials, media, technology, and design. Furthermore, the products that have been developed are validated by experts through a questionnaire on Friday, October 11, 2024 by assessing these five aspects. The validators involved include material experts, design experts, and learning media experts. Data collection was carried out using a questionnaire given to the validators, where each aspect was scored in the range of 1 to 4, with 1 meaning "strongly inappropriate" and 4 meaning "very appropriate". (Susilo et al., 2023)

The data obtained from the validation results were then analyzed descriptively by calculating percentages using the formula in (1): (Fadilah et al., 2023)

$$Percentage = \frac{Number\ of\ scores\ obtained}{Maximum\ number\ of\ scores} x\ 100\% \quad (1)$$

Then, the results of the percentage can be entered into categories based on table 1:

Table 1. Value categories on product aspects

No	Score	Category
1	100%-80%	Excellent
2	79%-60%	Good
3	59%-40%	Pretty good
4	39%-0%	Bad

Source: Fadilah et al (2023)

In addition to the percentage results, data collection was also obtained from suggestions given by validators. The collected data will be analyzed to provide an overview of the feasibility and effectiveness of GEGANA media in improving student understanding. Finally, the data will make a conclusion that states that GEGANA is worth testing without or with revisions according to the validator's suggestions, or even not worth testing.

RESULTS AND DISCUSSION

Based on the research that has been carried out, the results of data processing obtained from validators can be shown in table 2:

Table 2. Validity results

Aspects	Score	Category
Material	93,75%	Excellent
Language	100%	Excellent
Technology	75%	Good
Design	75%	Good
Media	81,25%	Excellent

From the results of the research submitted, the language aspect showed a perfect score, namely 100% with a very good category, a material aspect of 93.75% with a very good category, a media aspect of 81.25% with a very good category, and a technology and design aspect of 75% with a good category. Thus, in terms of language, materials, and media have the highest validity with excellent assessments. On the other hand, the technology and design aspects get

a lower score, which is included in the good category. This indicates that while both aspects are still considered feasible, there are areas that can be improved.

Furthermore, validators provide suggestions and input regarding the shortcomings in the GEGANA application. Suggestions from validators include improvements to the technology and design aspects of the application. In terms of technology, it is recommended that the Gegana application be more responsive and easy to use by various groups, including students with limited access to technology. Regular testing of the technology is also important to ensure its functionality runs optimally. In terms of design, validators suggest variations of visual elements so that the appearance is less monotonous and more dynamic, as well as maintaining the consistency of the background theme to make it more attractive. In addition, it is hoped that the application can take advantage of the design features in Canva to produce a fresh and suitable look for the target students, with a selection of colors, fonts, and icons that support intuitive and functional learning. Also, in writing material can be slightly reduced.

The language aspect of GEGANA which achieved a perfect score of 100% with the category of excellent reflects the quality of using easy-to-understand language, which significantly improves students' understanding of the material. With the use of simple and clear language, students can focus more on the core of the material and the concepts being taught without being distracted by difficulties in understanding complicated words or sentences. (Rizkiani & Rifdah, 2022) Language compatibility with the student's cognitive level is also an important factor in this assessment, where the material is delivered in a language that is adjusted to the student's level of thinking. (Purnanto & Mustadi, 2018) A logical and orderly delivery structure allows students to follow the material well from one stage to another. As a result, students with different language proficiency backgrounds can follow learning more easily, and their understanding improves due to the effective learning process. (Nurfadhillah et al., 2021) The development of direct comprehension tests in the future for students also ensures that the language used is not only easy to understand, but also supports learning objectives optimally.

The material aspect of GEGANA received a high score of 93.75% with the category of excellent, indicating that the material presented has a strong conformity with the latest curriculum, allowing students to learn in accordance with applicable academic standards and meet their learning needs. The impact on improved understanding and quality of learning is seen in the ease of achieving the established competencies, as the structured material helps students achieve the expected learning targets (Haspen et al., 2021) The inclusion of up-to-date information in the material also ensures that students gain new insights, not only from a theoretical perspective, but also from the development of cutting-edge technology and knowledge, which broadens their understanding. Visual and interactive elements, such as diagrams, images, animations, and *Smart Apps Creator* (SAC) apps, adding to the attractiveness of the material so that students can process information more easily and are interested in engaging in the active learning process without feeling bored or burdened by the amount of text. (Octaviani, 2021)

The media aspect in GEGANA has a very good category with a score of 81.25%, showing superiority in the use of interactive and easily accessible learning media, so as to be able to improve students' understanding and learning quality. The use of platforms like Canva and YouTube allows for more dynamic presentation of material; Canva supports creative visual design, (Tri Wulandari & Adam Mudinillah, 2022) while YouTube provides interactive and anytime accessible learning videos, (Fitria Dwi Widiastuti & Diena San Fauziya, 2024) and in the use of SAC is also equipped with games and live evaluations. (Romadhoni et al., 2023) This combination of media provides variety and attraction that motivates students to be more involved in the learning process. In addition, the focus on usability or ease of use ensures that students can access and use media independently without technical barriers. This easily accessible and designed medium with student comfort in mind allows for a more effective

learning experience, where students from various technological backgrounds can access the material smoothly and without constraints. (Titin et al., 2023)

The technology aspect of GEGANA has a low category with a score of 75% due to the integration of SAC technology that is not optimal. This can be caused by several factors, such as a lack of responsiveness and ease of use for users from various walks of life, especially students with limited access to technology. In addition, periodic testing of the technology system may not be carried out consistently, so the functionality of the SAC is not fully optimal. If this aspect of technology is improved, the impact will be an increase in the efficiency of using the platform by students, especially in terms of accessibility and a better user experience. To overcome this, technology integration must be improved with more regular testing and adjustments to make it more user-friendly and accessible to all users, including those with technology limitations. Therefore, it is necessary to make efforts to optimize the positive benefits of technology and minimize its negative impact.(Sarnoto et al., 2023)

The design aspect of GEGANA has a low category with a score of 75% due to the lack of variety of visual elements used. Monotonous and static designs can make the user experience feel less attractive and undynamic. In general, the benefits of media in the learning and learning process are to facilitate interaction between teachers and students so that learning activities will be more effective and efficient. In particular, there are some more detailed benefits of media (Wulandari et al., 2023). Canva provides its features or uses for education, explaining that Canva is a tool for creativity and collaboration for all classes. This can also be affected by the selection of colors, fonts, and icons that do not suit the target user, such as students, thus making the display less intuitive and functional. (Monoarfa 2021) Additionally, a lack of uniformity or consistent use of themes on backgrounds and other graphic elements can also lead to difficulties in navigation as well as degrade the visual appeal of the platform. If this aspect of design is low, the impact is that users, especially students, will feel bored and less motivated to use the platform effectively. On the other hand, if the media design is of higher quality, with interesting and dynamic visual variations, it will increase user engagement, make the learning process more enjoyable, and strengthen the absorption of the material presented. To address this issue, further exploration is needed in using creative design tools, such as Canva, to create fresh and attractive looks, as well as integrate visual elements that are more interactive and relevant to the user's needs. On the contrary, if this aspect of design is high, the impact will be very positive. According to Zaki, good design is able to provide a powerful interactive experience that is able to motivate and develop user skills. (Zaki et al., 2020)

CONCLUSION

The conclusion about the validity of GEGANA, which is the *Smart Apps Creator* (SAC) application supported by Canva and YouTube on motion, style, and pressure materials, shows that this application is effective in improving students' understanding and learning quality. The results of the evaluation show that GEGANA is worthy of testing with several revisions according to the suggestions given. Overall, GEGANA is proven to be valid to proceed to the next stage. Further development of this research will be focused on technology and design aspects, with the aim of improving and increasing the effectiveness of GEGANA's digital learning media. This is expected to provide a more interactive and enjoyable learning experience for students, thereby encouraging the achievement of better learning outcomes.

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