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Advancing Educational Practices: Implementation and Impact Desain Grafis in Education

M. Yakub Iskandar[1], Voni Azira[2], Ridho Aprilia Nugraha[3], Icha Jasneli[4], Rega Rahmanda[5], Andri Eka Putra[3]
[1]STKIP Pesisir Selatan, Indonesia
[2]Dumplupinar Universiti, Turkey
[3]Universitas Negeri Padang, Indonesia
[4]Holy Quran and Islamic Science University Yemen, Yemen
[5]Islamic University of Madinah, Saudi Arabia
myakubblokb@gmail.com *

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Abstract

Tutorial videos have an important role in supporting the learning process in class. Teachers predominantly use whiteboard media so that students need help understanding the material presented because the learning process is still teacher-centered. The need for appropriate learning media such as video tutorials makes the learning process student-centered. The research aims to develop valid and practical video tutorial learning media. The research method is R&D (Research and Development) by Borg and Gall this model stage was modified into five steps, namely initial product development planning, product validation, limited trials, and final product. The material validity results were 4.53 in the "very valid" category. The validity of media 1 and 2 obtained values of 4.83 and 4.60 in the "very valid" category. The results of the practicality test showed that 15 students obtained a score of 4.79 in the "very practical" category.

INTRODUCTION

The implementation of the teaching and learning process cannot be separated from the learning process factors which are a systematic process (Fuadah & Sanusi, 2017; Nugraha, 2018; Rindayati et al., 2022). The process carried out by educators and students in one place involves interrelated elements to achieve goals and is one of the determining factors for the success of a learning process (Hatim, 2018; Lazuardi, 2017; Suryapermana, 2017). Problems related to student education in the learning process usually involve inadequate qualifications and expected competencies, the use of methods, media selection, and the lack of varied techniques in implementation (Iskandar et al., 2023; Syafril et al., 2021).

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Broadly speaking, media are people, materials, or events that create conditions, that cause students to be able to acquire knowledge, skills, or attitudes (Jauhari, 2018; Suparlan, 2020). So according to this definition, teachers, peers, books, texts, the school environment, and outside of school, for a student are media.The use of appropriate media can convey information and the message conveyed by the sender of the message can be received clearly by the recipient of the message. Education will not be separated from technological developments which are utilized in developing learning media for children (Camelia, 2020; Chaeruman, 2022; Hendayani, 2019). Learning media can be used by teachers when teaching in class or when children learn on their own (Iskandar et al., 2022; Sumantri, 2019).

In the Big Indonesian Dictionary, the tutorial is first-class guidance by a teacher (tutor) for a student or a small group of students. Second, additional teaching through tutors. Learning video media is media that presents audio and visuals containing learning messages that contain concepts, principles, procedures, and application theories to help understand learning material (Ardiman et al., 2021; Gusmania & Wulandari, 2018). Furthermore, Pritandhari & Ratnawuri, (2015) explained that videos are available for almost all types of topics and types of students in all domains of cognitive, affective, motor skills, and interpersonal teaching. They can take learners almost anywhere expanding students' interests beyond the walls of the classroom. Video tutorials are one of the learning media that can be provided to students to understand learning material (Haryanti & Suwerda, 2022). According to Iskandar et al., (2023), various types of media can be used as tools to support the learning process, such as learning video media, audio media, animation media, illustration media, and conventional print media as support in understanding material taught by educators.

Based on the author's observations and interviews with graphic design subject teachers at vocational high school level. Graphic design subjects consist of several basic competencies, one of which is a form of visual communication that uses images to convey information or messages as effectively as possible. The main subject of this basic competency is about understanding the creation of image-based designs raster or bitmap, regarding the implementation of the learning process for Multimedia class students, problems were found that occurred in the learning process, including: First, the learning process is still teacher-centered in terms of delivering material. The teacher still relies heavily on the blackboard media so students find it difficult to understand the material presented by the teacher.

Second, there is a lack of student activity during the learning process and teachers rely on the lecture method so that students easily feel bored. Third, students play with gadgets during the learning process and do not pay attention to the material the teacher is conveying. Fourth, interactive media has not been implemented in graphic design subjects, so the learning atmosphere becomes uninteresting to participate in. Under such circumstances, learning becomes stiff, thus making students bored in following the learning process and causing students' concentration to only be gradual during one class hour, while two hours of graphic design lessons, with conditions like this the student's concentration will not last until the specified time.

Seeing the problems that occur at Vocational High School level students, the media needed must attract students' attention. Interesting media can foster students' motivation and enthusiasm for learning (Lukman, 2021). Furthermore, this tutorial activity is needed because the students being guided can carry out independent learning activities sourced from existing media. This shows that

video tutorial media can help students train themselves to carry out high-level thinking processes in finding solutions. Finally, it turns into regular learning because they focus on the problem, and their motivation increases. According to Yuniarti et al., (2023), students who have been taught using conventional media often feel bored with learning. According to Winarso, (2014) students who try hard to think directly improve their skills in higher-level thinking. For video tutorial learning media, the material in graphic design subjects is not boring and can attract students' attention. In the material about combining images, because in this material there is a way to combine images into one image design (banner, t-shirt, screen printing) which must be depicted in a video tutorial interestingly learning media, rather than using recorded sound as a media, the impression is stiff and unattractive for school students vocational secondary.

The benefit that can be taken from smartphones is by using them as a learning medium. The smartphones that are currently being developed a lot are smartphone-based Android. One of the media that can be used and developed as a learning medium is video tutorial learning media (Hendriyani et al., 2018; Mardiana et al., 2022; Marliani, 2021). The analysis related to the author's title that the research conducted has a basis in providing solutions related to problems in the research is as follows:

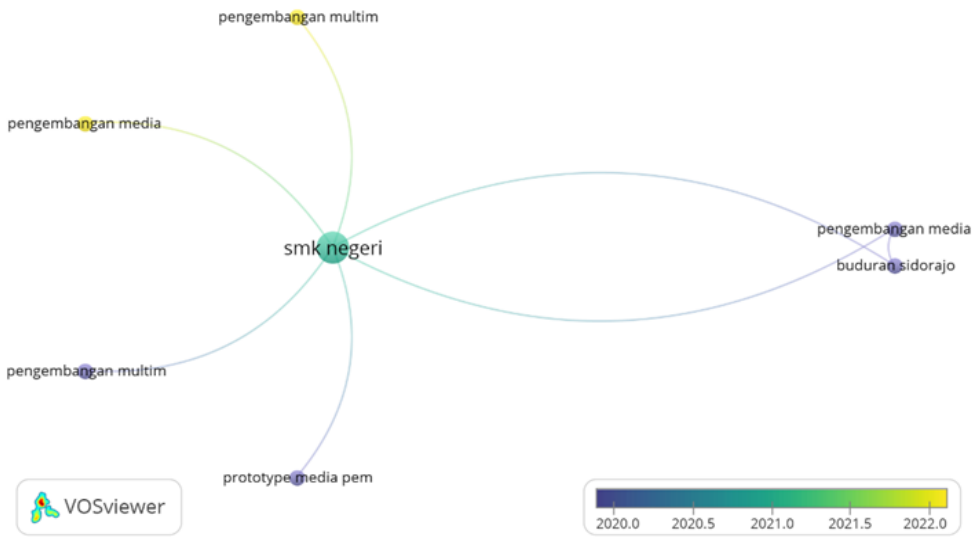

Fig 1. Data analysis VOSviewer based on novelty

Based on the results of 200 articles in various Sinta accredited journals for 2020-2023 obtained from Google Scholar using the application Publish or Perish and data analysis using applications VOSviewer then a title related to the results of the author's research is obtained keyword development, learning media, video tutorials, and graphic design. The data from figure 1 shows that media development has been carried out in Vocational High Schools, but the learning media that has been developed is mostly interactive media and learning media prototypes. The development of learning media is still little developed and is still being developed because it is seen from the color through analysis of VOSviewer It will still be yellow in 2022-2023, while a lot of research has been carried out on the dark color in 2020. Developing video tutorials as a learning medium for graphic design subjects is feasible because there are still very few researchers conducting this research.

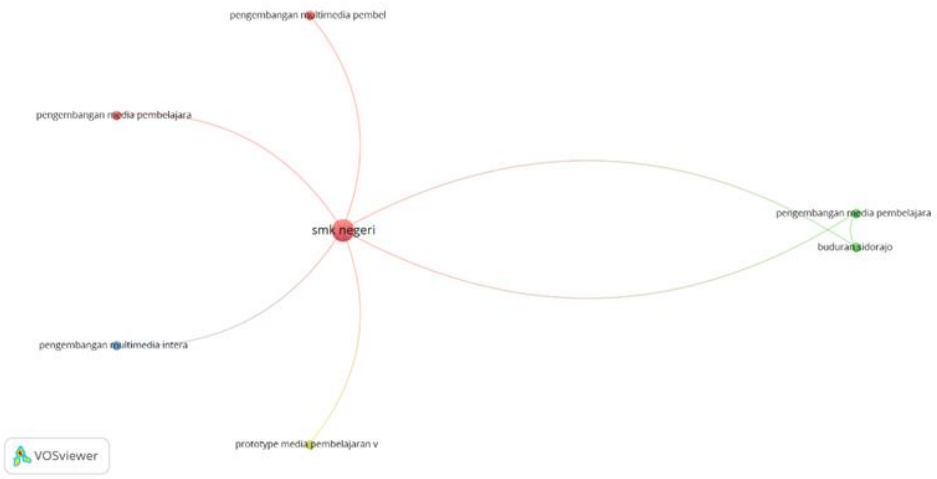

Fig 2. Data analysis VOSviewer based on cluster study

Figure 2 above shows the data analysis from the application VOSviewer It can be seen from the color that each color has a different cluster. Cluster 1 consists of 3 titles, namely the development of interactive learning media using the applied development model in graphic design subjects (Hananta & Wibawa, 2020; Tatahue et al., 2023; Wahyudi, 2020; Yurni et al., 2022). Cluster 2 consists of 2 titles, namely the development of interactive multimedia learning media based on Adobe Premiere Pro on basic competencies in managing public relations activities (Zaini & Nugraha, 2020) cluster 3 consists of 1 title, namely the development of website-based interactive multimedia on subjects adobe photoshop for class X, the multimedia skills program (Zaini & Nugraha, 2020) and cluster 4 consists of 1 title, protype video tutorial learning media on office technology subjects (Aji & Puspasari, 2020). These 4 clusters show that research related to the development of video tutorial learning media for graphic design subjects is feasible because little similar research has been carried out.

METHODS

This type of research is development research which is known as Research and Development (R&D) (Arvindo et al., 2024; Asril et al., 2023; Damri et al., 2023; Hanifah et al., 2024; Iskandar et al., 2023a; Nelawati & Saliman, 2021). According to Oktavia & Rismawati, (2022); Sugiyono, (2018), the development research method is a research method used to produce certain products and test the effectiveness of these products (Dwiranata et al., 2019). Borg and Gall also suggest limiting research to a small scale, in this research the researcher simplifies the steps according to the researcher's needs into 5 research steps, namely: Planning, initial product development, product validation (validation and revision), limited trials, the final product (Dwiranata et al., 2019; Hakim, 2020; Iskandar et al., 2022; Momang, 2021). The steps of the method according to Borg and Gall can be seen in the image below:

Fig 3. Steps for conducting research

RESULT AND DISCUSSION

The result of the development research is a video tutorial product for graphic design subjects at Vocational High Schools. The tutorial videos that are made will go through the stages of validity testing and practicality testing. The video tutorial product display can be seen in the image below:

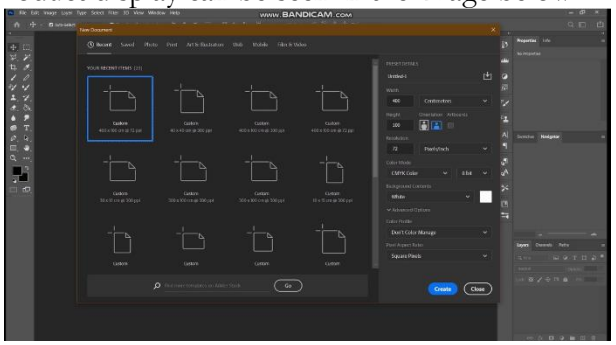

Fig 4. Initial Video Creation View

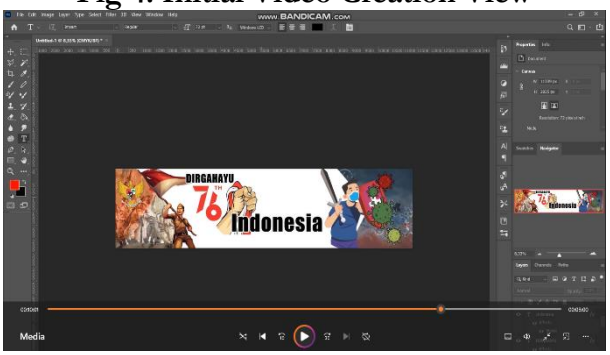

Fig 5. Video Opening Design

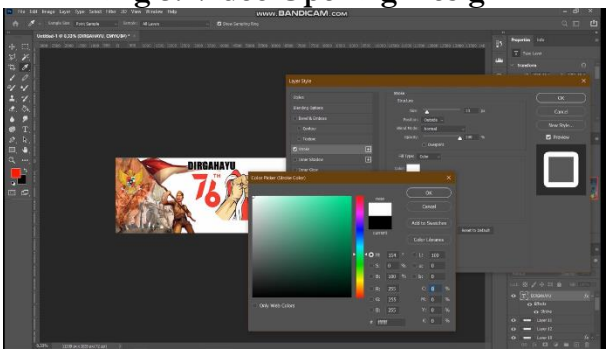

Fig 6. Video Making Process

Fig 7. Tutorial Video Display

Media validation results

Media validation was carried out by two learning media expert validators, namely lecturers from the Department of Curriculum and Educational Technology. The aspects assessed on the product are appearance, readability, ease of use, and testing. The results of the questionnaire by media validator 1 obtained an average value of 4.83 by the category "very valid". The results of the

media validation test assessment can be seen in the following table:

Table 1. Results of media validation test assessment by validator 1

No	Aspect	Average	Information
1.	Appearance	5	Very valid
2.	Legibility	5	Very valid
3.	Ease of use and testing	4,5	Very valid
	Amount	**4,83**	**Very valid**

Meanwhile, for the results of the questionnaire by media validator 2, an average score of 4.60 was obtained by the category "very valid".

Table 2. Results of media validation test assessment by validator 2

No	Aspect	Average	Information
1.	Appearance	4	Very valid
2.	Legibility	5	Very valid
3.	Ease of use and testing	5	Very valid
	Amount	**4,60**	**Very valid**

Material validation results

Next, material validation is carried out by Multimedia experts regarding product material, namely aspects of content and objectives, depth of material, and tests. The results of the questionnaire by the material validator obtained an average value of 4.53 by the category "very valid". The results of the material validation test assessment can be seen in the following table:

Table 3. Results of material validation test assessment

No	Aspect	Average	Information
1.	Benefit	4,75	Very valid
2.	Appearance	4,66	Very valid
3.	Presentation of Material	4,25	Very valid
	Amount	**4,25**	**Very valid**

Result Description of Practicality Test

The Practicality Test was carried out involving fifteen student respondents. The aspects assessed for the practicality test are aspects of ease of use, benefits, appearance, and presentation of material. Based on the results of practicality trials, an average result of 4.79 was obtained in the "very practical" category. The results of the practicality test assessment can be seen in the following table:

Table 4. Results of practicality test assessment

No	Aspect	Average	Information
1.	Benefit	4,8	Very Practical
2.	Appearance	4,74	Very Practical
3.	Presentation of Material	4,84	Very Practical
	Amount	**4,79**	**Very Practical**

The development of video tutorial learning media in graphic design subjects at the Vocational High School level in the Multimedia class was carried out by testing validity by media validators and material validators, as well as testing product practicality on students. The data collection instruments used were assessment sheets for media validators, material validators, and questionnaire sheets for students using a scale Likert 5 point response (scale 1-5). Based on the research carried out, the following information was obtained. The results of the validation scores by media validator 1 obtained an average score of 4.83 in the "very valid" category. Meanwhile, for the validation value results by media validator 2, an average value of 4.60 was obtained in the "very valid" category. Validity is a measure that shows the levels of validity or validity

of an instrument. Meanwhile, according to Sugiyono, (2014) validity is the degree of accuracy between the data that occurs on the research object and the power that can be reported by the researcher. So it can be concluded that validity is a measuring tool used to obtain data on whether this media is appropriate to use or not in the learning process seen from the level of validity. Based on the media validation results, it can be concluded that the video tutorial learning media product in graphic design subjects is "very valid" to use.

This is related to material validation carried out by one Multimedia expert validator who assessed the video tutorial material, namely aspects of content and objectives, and depth of material. The results of the material validation assessment obtained an average score of 4.79 in the "very valid" category. So it can be concluded that validity is a measuring tool used to obtain data on whether the material in this tutorial video product is appropriate to use or not in the learning process seen from the level of validity. It can be concluded that the material in the video tutorial product in the vocational high school multimedia graphic design subject is "very valid" to use.

Next, a practicality test was carried out involving 15 respondents, namely Multimedia class students. The aspects assessed in the product practicality test are aspects of ease of use, benefits, appearance, and presentation of the material. Based on the results of practicality trials, an average score of 4.79 was obtained in the "very practical" category. According to Muttaqin et al., (2020), practicality is a quality that shows the possibility that a product can be implemented from an assessment technique. In this case, it can be said that a product is categorized as practical if the product is easy to use by the target user. It can be concluded that interactive multimedia products in vocational high school multimedia graphic design subjects are "very practical" to use.

CONCLUSION

This development research has succeeded in creating a valid and practical video tutorial product so that it can be used in graphic design subjects. The product has gone through an assessment from media experts and material experts by the assessment indicators. The assessment results from all experts have stated that this product is valid and practical so it is suitable for use in supporting the learning process in the classroom. An effectiveness assessment needs to be carried out to see whether the product produced is effectively used in the learning process or not. The resulting products can be disseminated to various agencies so that they can help teachers and students in the learning process. The valid and practical products that have been produced provide suggestions for teachers or learning media developers to make more use of technology and create creative, innovative, and fun learning media in the learning process in the classroom and outside the classroom.

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