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DEVELOPMENT OF VIDEO TUTORIALS AS A MEDIA FOR LEARNING GRAPHIC DESIGN IN VOCATIONAL HIGH SCHOOLS

Ridho Aprilia Nugraha[1*], M. Yakub Iskandar[2]
[1*] Universitas Negeri Padang, Indonesia
[2] STKIP Pesisir Selatan, Indonesia

Email: ridhonugraha@gmail.com

ABSTRACT

Education will not be separated from technological developments which are utilized in developing learning media for children. Tutorial videos have an important role in supporting the learning process in class. Teachers predominantly use whiteboard media so that students find it difficult to understand the material presented because the learning process is still teacher cantered. The need for appropriate learning media such as video tutorials makes the learning process student cantered. 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 5 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 received a value of 4.83 and 4.60 in the "Very Valid" category. The results of the practicality test by 15 students obtained a score of 4.79 in the "Very Practical" category. Video tutorials can be used by students and teachers during the learning process in class.

Keywords: Development, Learning Media, Video Tutorials, Graphic Design

***Corresponding Author:**
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INTRODUCTION

The implementation of the teaching and learning process cannot be separated from the learning process factors which are a systematic process, namely the process carried out by educators and students in one place involving interrelated elements to achieve goals and become one of the determining factors for the success of a learning process. 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.

According to (Arsyad, 2009:3) media in general are people, materials, or events that create conditions, which cause students to be able to acquire knowledge, skills, or

attitudes." 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. Iskandar et al., (2022) Learning media can be used by teachers when teaching in class or when children learn on their own.

In the Big Indonesian Dictionary (2001: 1230), tutorial is (1) Class guidance by a teacher (tutor) for a student or a small group of students, (2) Additional teaching through a tutor. Riyana (2007: 2) explains that learning video media is media that presents audio and visuals containing good learning messages containing concepts, principles, procedures, application theories to help understand learning material. Next is Smaldino et al., (2011) explains that videos are available for almost all types of topics and for types of students in all domains of cognitive, affective, motor skills, 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 in understanding learning material. According to Iskandar et al., (2023) Various types of media that 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 the material taught by educators.

Based on the author's observations and interviews with the graphic design subject teacher in class X Multimedia at the Kerinci 1 State Vocational School. The Graphic Design subject consists 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 designs based on raster or bitmap images, about implementing the learning process for class students. X Multimedia found problems that occurred in the learning process, including: (1) the learning process is still teacher-centered in terms of delivering material. The teacher still relies heavily on blackboard media so that students find it difficult to understand the material presented by the teacher. (2) lack of student activity during the learning process and teachers relies on the lecture method so that students easily get bored (3) students play with gadgets during the learning process and do not pay attention to the material the teacher is conveying (4) interactive media has not been implemented in graphic design subjects, then the learning atmosphere becomes uninteresting to participate in. In such circumstances, learning becomes stiff, thus making students bored in following the learning process and causing students' concentration to only be gradual during one hour of class, while graphic design lessons are two hours of learning, In conditions like this, student concentration will not last until the specified time.

Seeing the problems that occur with students at the Kerinci 1 State Vocational School, the media needed must attract the students' attention. Interesting media can foster students' motivation and enthusiasm for learning (Harahap et al., 2022). Furthermore, this tutorial activity is really 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. Eventually it turns into regular studying because they focus on the problem and their motivation increases. According to (Ramawati,2016), students who have been taught using conventional media often feel bored with learning. According to Oktavianto (2017), 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, etc.) which must be It is depicted in video tutorial learning media in an interesting way, rather than using recorded sound media, it gives the impression of being stiff and unattractive for vocational high school students. 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 media is video tutorial learning media. The analysis related to the author's title that the research conducted has a basis in provic

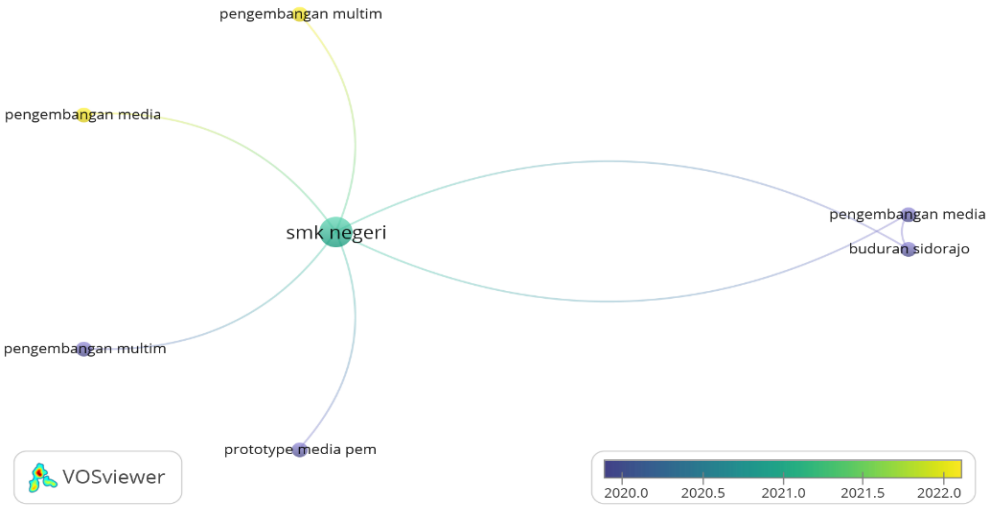

Figure 1. Data analysis *VOSviewer* based on novelty

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.

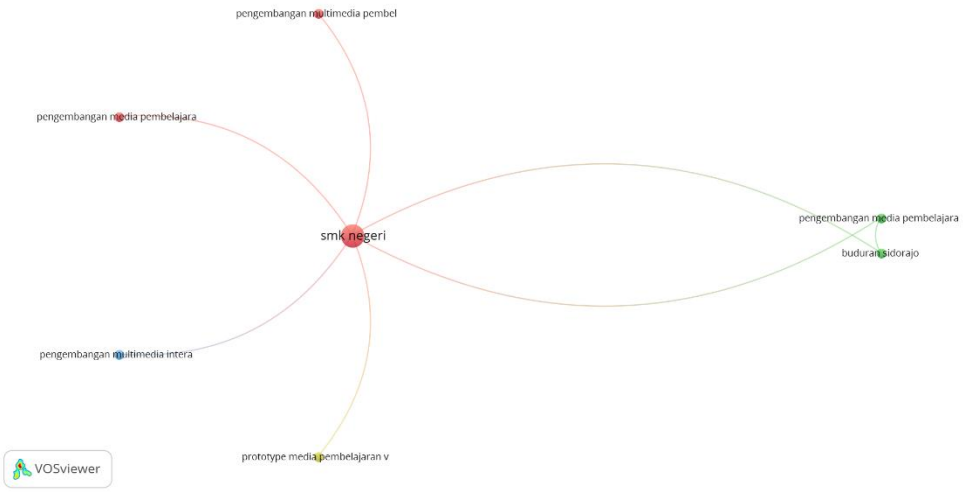

Figure 2. Data analysis VOSviewer based on Cluster study

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 for class (Yurni et al., 2022; Zhelmico Hananta Agustiar, 2020) and state vocational schools (Tatahue et al., 2023). Cluster 2 consists of 2 titles, namely the Sidoarjo roundabout (Dwiyanti & Zaini, 2023; Febrianto, n.d.; Zaini & Nugraha, 2020) and the development of interactive multimedia learning media based on Adobe Premiere Pro on the basic competency of managing public relations activities for class XI office administration (Zaini & Nugraha , 2020). Cluster 3 consists of 1 title, namely website-based interactive multimedia development in subjects' adobe photoshop for class X, the multimedia skills program (Zaini & Nugraha, 2020) and Cluster 4 consists of 1 title, namely 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.

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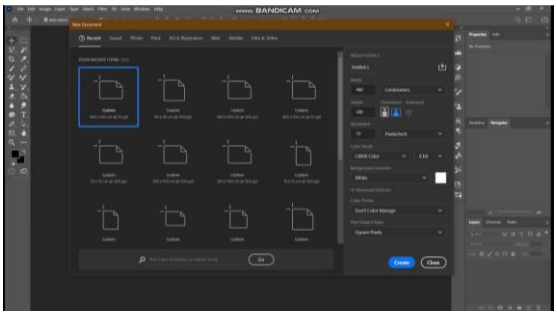
technology subjects (Aji & Puspasari, 2020). These 4 clusters show that research related to the development of video tutorial learning media for graphic design subjects is feasible because little similar research has been carried out.

METHODS

This type of research is development research which is known as Research and Development (R&D). According to (Sugiyono, 2009: 297), research and development methods are research methods used to produce certain products and test the effectiveness of these products. Borg and Gall also suggest limiting research to a small scale, including 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. The steps of the method according to Borg and Gall can be seen in the image below:

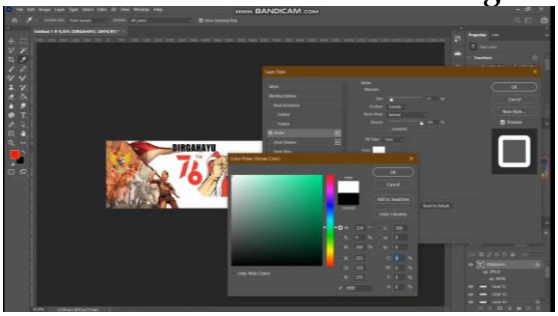
RESULT AND DISCUSSION

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



Initial View of Video Making

Video Opening Design



Video Making Process

Video Tutorial Display

Figure 3. Process of making video tutorials

Description of validity data
Media validation

Media validation was carried out by two media validators with Mrs. Novrianti., S.Pd., M.Pd (validator 1) and Mrs. Dr. Ulfia Rahmi., M. Pd. (validator 2) lecturer in the Department of Curriculum and Educational Technology, Faculty of Education, Padang State University. 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 category **"very valid"**. The results of the media validation test assessment can be seen in the following table:

No	Aspect	Rate-rate	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 category **"very valid".**

No	Aspect	Rate-rate	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

Material validation was carried out by Mr. Romes Alizard., S.Pd, Multimedia teacher at Kerinci 1 State Vocational School. The aspects assessed in the product material are the 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 category **"very valid"**. The results of the material validation test assessment can be seen in the following table:

No	Aspect	Rate-rate	Information
1.	Content and Purpose	4,75	Very Valid
2.	Depth of Material	4,66	Very Valid
3.	Hands	4,25	Very Valid
	Amount	**4,25**	**Very Valid**

Description of practicality tests

The Practicality Test was carried out involving 15 respondents, namely class X Multimedia students at State Vocational High School 1 Kerinci. The aspects assessed for the practicality test are aspects of ease of use, benefits, appearance, presentation of

material. Based on the results of practicality trials, an average result of 4.79 was obtained by category **"Very Practical"**. The results of the practicality test assessment can be seen in the following table:

No	Aspect	Rate-rate	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**

Discussion

The development of video tutorial learning media in graphic design subjects in class 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.

Validity test

Media validation was carried out by 2 media validators, namely Mrs. Novrianti., S.Pd., M.Pd (validator 1) and Mrs. Dr. Ulfia Rahmi., M.Pd. (validator 2) lecturer in the Department of Curriculum and Educational Technology, Faculty of Education, Padang State University. The aspects assessed in this video tutorial media are the appearance aspect, readability aspect, ease of use aspect and so on. The results of the validation value by media validator 1 obtained an average value of 4.83 by category **"very valid"**. Meanwhile, for the validation value results by media validator 2, an average value of 4.60 was obtained by category **"very valid".** According to Arikunto (2010: 211) Validity is a measure that shows the levels of validity or authenticity of an instrument. Meanwhile, according to (Sugiyono, 2009: 363), 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.

Material validation was carried out by one material validator, namely Mr. Romes Alizard, a teacher at the Multimedia Department at the Kerinci 1 State Vocational High School. The aspects assessed in the video tutorial material are the content and objectives, depth of the material. The results of the material validation assessment obtained an average score of 4.79 by category **"very valid"**. According to Zainal Arifin (2012: 35) validity is the degree of accuracy of an instrument (measuring instrument), meaning whether the instrument used is truly appropriate for measuring what is to be measured). Meanwhile, according to Sugiyono (2009: 363), 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 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 used in the video tutorial product for the Multimedia Graphic Design subject at Vocational High Schools is "**Very valid**".

Practicality Test

The Practicality Test was carried out involving 15 respondents, namely class X Multimedia students at State Vocational High School 1 Kerinci. 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 value of 4.79 was obtained by category **"very practical"**. According to Purwanto (2009: 137) 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 the Vocational High School Multimedia Graphic Design subject 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 in accordance with 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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