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# The Feasibility of Video Tutorial Learning Media for Batik in Arts and Culture Subjects in Vocational High Schools (SMK)

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**Abstract**
Learning batik in the Arts and Culture subject in Vocational High Schools (SMK) still faces the problem of low student understanding, which is caused by limited media and methods of delivering material orally so that the learning practice process is less effective. This study aims to test the feasibility of learning media in the form of a batik tutorial video for arts and culture subjects. This study uses a research and development method with a 4-D model that includes the stages of defining, designing, developing, and disseminating. The subjects of this study consisted of three media experts and three material experts who served as validators. The data collection technique for this study used a feasibility assessment sheet, while data analysis was carried out using a quantitative descriptive approach through calculating the average score. The validation results by media experts showed an average score of 3.62 which is included in the "feasible" category, while the validation results by material experts showed an average chord of 3.50 which also indicates the "feasible" category. Thus, the learning media for batik tutorial videos created is declared suitable for use in the arts and culture learning process in vocational schools.

**Keywords**: batik tutorial video, learning media, arts and culture, vocational high schools, media suitability

## INTRODUCTION

Vocational High Schools (SMK) are formal educational institutions with a strategic responsibility to prepare the next generation of human resources (HR) to enter the workforce and social life (Anita, Wahyudi, & Susanto, 2020). Vocational high school education emphasizes not only academic competency mastery but also vocational skills. understanding, preparation, and professionalism. Vocational high schools' vocational programs are tailored to industry needs, allowing students to choose their chosen field of expertise and preparing them for the transition from school to work (Crockett & Hardman, 2010b; Bouck & Park, 2019). This aligns with Bekken's (2022) view that vocational education serves as a space for negotiating practical knowledge that not only provides technical skills but also strengthens students' identity and empowerment in facing the future.

In this context, the vocational high school curriculum is designed not only to meet the demands of the industrial world, but also to provide space for additional skills relevant to local culture, one of which is batik. Hand-drawn batik learning is taught in stages, starting from drawing motifs, tracing motifs, using canting, dyeing, and the penglorot stage. This activity not only trains technical skills but also serves as a means of preserving batik culture, which has been recognized by UNESCO as a world cultural heritage. According to the Yogyakarta Special Region Cultural Office (2017), batik learning in schools is an effective strategy for introducing and instilling cultural values from an early age, so that students are not only ready for work but also play a role in preserving the nation's traditional heritage.

Chandroo, Strnadová, & Cumming (2020) emphasize that educational planning that is truly

oriented towards students' needs can positively impact their future participation. Therefore, the integration of batik learning in vocational schools is not only relevant to the needs of the Arts and Culture curriculum but also aligns with the goal of vocational education to equip students with the competencies, creativity, and cultural identity that can support employment and entrepreneurial opportunities.

The Arts and Culture subject was chosen as the focus of the research because student learning outcomes in batik material showed relatively lower achievements compared to other subjects, thus requiring more effective and contextual learning innovations. Based on the results of observations conducted at SMK Negeri 1 Ngawen Gunungkidul, the average daily test score of 167 students from five classes of grade X was 73.8, still below the school's Minimum Completion Criteria (KKM) which was set at 75. One of the causes was that the material was often delivered verbally without the support of learning media; sometimes teachers only used PowerPoint slides or projected modules. In batik practice, many students did not fully understand the stages so that the practice time was ineffective because a lot of time was used for questions and answers. The results of the questionnaire filled out by 167 students showed that 132 students had difficulty understanding the material and encountered obstacles when practicing batik.

Learning media is essential for improving the effectiveness of classroom learning. Learning media plays a significant role in increasing student participation and interest in the material, as it helps convey the teacher's message, making the learning process more easily understood (Pardimin & Widodo, 2017). According to Cecep & Dudung (2020), the use of media in education not only conveys messages but also creates a pleasant learning environment. The presence of media not only facilitates understanding of the material but also helps stimulate motivation, foster self-confidence, and focus students' attention on the learning process (Arsyad, 2017; Sanaky, 2013; Anitah, 2017; Wati in Ahmad Fadholi, 2019).

One relevant media alternative is video tutorials. Video tutorials fall into the audio-visual category, allowing students to observe, imitate, and practice the steps involved in creating a work (Elvida & Ardisal, 2018).

Research shows that video tutorials can motivate students and facilitate understanding, especially in practical learning when compared to just reading books or listening to verbal explanations from teachers (Ardian, Wahida, & Kurniadi, 2020).

Previous research also concluded that the development of video tutorials is suitable for improving learning outcomes in both theory and practice (Huda et al., 2015).

Based on the description, there appears to be a gap between the current state of batik learning, which is still dominated by oral explanations, and students' need for interactive, practical, and easy-to-follow media. Video tutorials are a solution that can bridge this gap by providing systematic visual guidance. Therefore, the author conducted a study entitled: "The Feasibility of Video Tutorial Learning Media for Batik in Arts and Culture Subjects in Vocational High Schools (SMK)."

## METHOD

### Research design

research design used in this study is the 4-D model ( *Four-D Model* ) introduced by Thiagarajan, Semmel, & Semmel (1974). This model was chosen because it is structured, systematic, and widely used in the development of learning tools. The development procedure used in this study, the researchers used four research and development steps: defining ( *Define* ), designing ( *Design* ), developing ( *Develop* ), and disseminating ( *Disseminate* ).

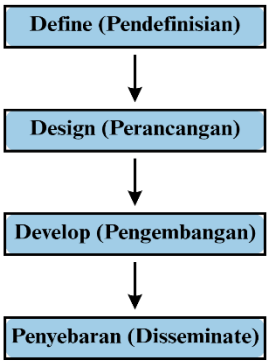

Figure 1. 4-D Model

**Research Subject**

This study involved expert subjects as media validators, consisting of a minimum of three media experts and material experts. The involvement of experts aimed to assess the feasibility of the learning media in terms of content/material, presentation, and suitability to the characteristics of arts and culture learning in vocational schools. Input from the experts was used as the basis for revising and refining the media before it was implemented in the trial phase with students.

**Data collection technique**

The data collection technique in this study used an assessment sheet as the primary technique to focus the research process. The assessment sheet was used to obtain data on the feasibility of the batik video tutorial learning media created.

**Data Analysis Techniques**

The data analysis technique in this study uses a quantitative descriptive approach through the calculation of the average (mean), which aims to describe and interpret the results of the assessment of the feasibility of the batik video tutorial media based on numerical data from the assessment sheet filled out by material experts and media experts. Data from the assessment sheet were analyzed by calculating the average score on each assessment indicator, then interpreted according to the established media feasibility criteria. By using this approach, researchers can systematically and objectively assess the extent to which the batik video tutorial media created is suitable for use in learning. The data analysis steps carried out in this study are as follows.

**Converting qualitative data into quantitative data**

Table 1. Scoring Guidelines (Sukmadinata, 2015: 232)

| No | Qualitative Data | Score |
|---|---|---|
| 1 | Very Worthy | 4 |
| 2 | Worthy | 3 |
| 3 | Quite Decent | 2 |
| 4 | Less than worthy | 1 |

**Calculating the average score**

The existing quantitative data is then calculated for an average score using the following formula.

$$\overline{X} = \frac{\sum x}{N}$$

Information:

$\overline{X}$ = average score

$\sum x$ = total score

N = number of respondents

**Converting average scores into qualitative data**

Table 2. Conversion of Quantitative Data to Qualitative Scale Four (Widoyoko, 2010: 38)

| Formula | Average Score | Category |
|---|---|---|
| X > Xi +1.8 x SBi | X > 4.2 | Very Worthy |
| Xi + 0.6 x SBi < X ≤ Xi + 1.8 x SBi | 3.4 < X ≤ 4.2 | Worthy |
| Xi – 0.6 x SBi < X ≤ Xi + 0.6 x SBi | 2.6 < X ≤ 3.4 | Quite Decent |
| Xi – 0.8 x SBi < X ≤ Xi + 0.6 x SBi | 1.8 < X ≤ 2.6 | Less than worthy |

Information:
*X* = Actual score (score achieved)
*Xi* = Ideal average
*Sbi* = Standard deviation of ideal score

Based on the qualitative to quantitative data conversion table with a four-scale scale above, it can be concluded that the batik video tutorial media is categorized as feasible if it obtains a score of "quite feasible", "feasible", or "very feasible". Conversely, the media is categorized as unfeasible if the score obtained falls into the "less feasible" category. Thus, in this research and development, the batik video tutorial media developed is considered feasible for use in learning if the assessment results by material experts, media experts, teachers, and students show a minimum score of the good category in all assessment aspects. In more detail, the media can be declared very feasible if the average score is more than 4.2, feasible if it is in the range of 3.4 < X ≤ 4.2, quite feasible if it is in the range of 2.6 < X ≤ 3.4, and less feasible if it only reaches a score of 1.8 < X ≤ 2.6. With these criteria, each result of the validation test and practicality test can be interpreted objectively to determine the final feasibility of the product.

## RESULTS AND DISCUSSION

### The Suitability of Batik Video Tutorials According to Media Experts

Based on the Assessment Sheet that has been filled out by the Media Expert Validator, it shows that the batik video tutorial learning media created by the researcher obtained the results as in Table 3.

Table 3. Quantitative Data of Media Expert Validation

| NO | EXPERT 1 | EXPERT 2 | EXPERT 3 |
|---|---|---|---|
| **1** | 4 | 4 | 3 |
| **2** | 4 | 4 | 3 |
| **3** | 4 | 4 | 3 |
| **4** | 4 | 4 | 3 |
| **5** | 3 | 3 | 3 |
| **6** | 4 | 4 | 4 |
| **7** | 4 | 4 | 4 |
| **8** | 4 | 4 | 4 |
| **9** | 4 | 3 | 4 |
| **10** | 3 | 4 | 4 |
| **11** | 3 | 4 | 3 |
| **12** | 4 | 4 | 3 |
| **13** | 3 | 3 | 3 |
| **14** | 4 | 4 | 3 |
| **15** | 4 | 4 | 3 |
| **TOTAL** | 56 | 57 | 50 |
| **EVEN"** | 3.73 | 3.8 | 3.33 |
| **AMOUNT** | | **10.86** | |

Total Score: 10.86
Number of Respondents: 3
Average Score = Number of Scores : Number of Respondents
= 10.86 : 3
= 3.62

Table 4. Conversion of Quantitative Data to Qualitative Scale Four (Widoyoko, 2010: 38)

| Formula | Average Score | Category |
|---|---|---|
| X > Xi +1.8 x SBi | X > 4.2 | Very Decent |
| Xi + 0,6 x SBi < X ≤ Xi + 1,8 x SBi | 3.4 < X ≤ 4.2 | Eligible |
| Xi – 0,6 x SBi < X ≤ Xi + 0,6 x SBi | 2.6 < X ≤ 3.4 | Decent Enough |
| Xi – 0,8 x SBi < X ≤ Xi + 0,6 x SBi | 1.8 < X ≤ 2.6 | Less Qualified |

Description :

*X* = Actual score (achieved score)

*Xi* = Ideal average

*Sbi* = Standard deviation of the ideal score

From the analysis above, the average score from the media expert assessment was 3.62. And judging from the qualitative to quantitative data conversion table above, the results of the batik tutorial video can be categorized as suitable for use as a learning medium.

**The Suitability of Batik Video Tutorials According to Material Experts**

Based on the Assessment Sheet that has been filled out by the material Expert Validator, it shows that the batik video tutorial learning media created by the researcher obtained the results as in Table 4.

Table 5. Quantitative Data from Media Expert Validation

| NO | EXPERT 1 | EXPERT 2 | EXPERT 3 |
|---|---|---|---|
| **1** | 3 | 4 | 3 |
| **2** | 3 | 4 | 4 |
| **3** | 3 | 4 | 3 |
| **4** | 3 | 4 | 3 |
| **5** | 3 | 4 | 3 |
| **6** | 4 | 4 | 4 |
| 7 | 4 | 4 | 3 |
| **8** | 4 | 4 | 3 |
| **9** | 3 | 4 | 3 |
| **10** | 3 | 4 | 3 |
| **TOTAL** | 33 | 40 | 32 |
| **FLAT"** | 3.3 | 4 | 3.2 |
| **AMOUNT** | | **10.5** | |

Total Score: 10.5

Number of Respondents: 3

Average Score = Total Score : Number of Respondents

= 10.5 : 3

= 3.5

Table 6. Conversion of Quantitative Data to Qualitative Scale Four (Widoyoko, 2010: 38)

| Formula | Average Score | Category |
|---|---|---|
| X > Xi +1.8 x SBi | X > 4.2 | Very Worthy |
| Xi + 0.6 x SBi < X ≤ Xi + 1.8 x SBi | 3.4 < X ≤ 4.2 | Eligible |
| Xi – 0,6 x SBi < X ≤ Xi + 0,6 x SBi | 2.6 < X ≤ 3.4 | Decent Enough |
| Xi – 0,8 x SBi < X ≤ Xi + 0,6 x SBi | 1.8 < X ≤ 2.6 | Less Qualified |

Description :

*X* = Actual score (achieved score)

*Xi* = Ideal average

*Sbi* = Standard deviation of the ideal score

Based on the analysis above, the average score from the material expert assessment was 3.5. Based on the qualitative-to- quantitative data conversion table above, the results of the batik tutorial video can be categorized as suitable for use as a learning medium.

## CONCLUSION

This study aims to test the feasibility of a batik video tutorial learning medium. The creation of this batik video tutorial learning medium was based on the problem of vocational high school students' lack of understanding in implementing batik practice at school.

From the results of the analysis of the assessment of the batik video tutorial learning media by media experts and material experts, it can be concluded that the batik video tutorial learning media is "suitable" for use in the classroom learning process and can help teachers in delivering material more easily.

Based on these findings, suggestions for teachers or future research include developing more interactive and engaging batik video tutorials. This will make the material easier to understand and make learning more effective and efficient.

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