

DEVELOPMENT OF BATIK TULIS MODULE FOR ELEMENTARY SCHOOL TEACHER CANDIDATES

Fery Setyaningrum^{a,1*}, Heni Siswantari^{a,2}, Ganing Rimas Hayu Kerti^{a,3}

^a Pendidikan Guru Sekolah Dasar, Universitas Ahmad Dahlan Yogyakarta, Indonesia

¹ fery.setyaningrum@pgsd.uad.ac.id *; ² heni.siswantari@pgsd.uad.ac.id; ³ ganing1700005113@webmail.uad.ac.id

*korespondensi penulis

Article info

Received : 2021-10-17

Revision : 2021-12-20

Published : 2021-12-27

Keywords:

Development,
Module,
Batik tulis,

ABSTRACT

This research is motivated by the difficulties of students in preparing and making written batik. So, the authors developed a complete module of written batik material for students, especially the PGSD department. This study aims to determine the steps for developing a written batik module for PGSD students and to determine the quality test by experts on the written batik module for PGSD students. The type of research that will be used is research development or Research and Development with the Borg and Gall model in Sugiyono. The types of data that will be used are quantitative data and qualitative data. The data collection technique will be carried out by the process of assessing product design by experts such as learning experts, material experts, linguists, and media experts. In addition, the authors will collect other data from the unstructured interview process as a needs analysis for UAD PGSD students, especially those who take similarity courses at UAD in the 2019/2020 academic year. The result of this research is that the development step is carried out in 5 stages according to Borh and Gall because of the limited time of the research by testing the quality of the experts' assessment of the written batik module for PGSD students, the total value of 275, 09 and the average number is 91.7. These results indicate that the written batik module for PGSD students that has been developed meets the "Very Appropriate" category.

INTRODUCTION

Culture is very closely related to Indonesia. There are so many diverse cultures that exist in Indonesia, especially Java and Yogyakarta (Sintawati et al., 2020). One of them is art. In government regulation no. 38 of 2018, for learning Arts, Culture, and Crafts (SBdP), it is written in the Core Competencies (KI) that: 1) Accept and practice the teachings of their religion; 2) Have honest, disciplined, responsible, polite, caring, and confident behavior in interacting with family, friends, and teachers; 3) Understanding factual knowledge by observing (hearing, seeing, reading) and asking questions based on curiosity about himself, God's creatures and their activities, and objects they encounter at home and Madrasas; 4) Presenting factual knowledge in clear and logical language, in aesthetic works, in movements that reflect healthy children, and in actions that reflect the behavior of children with faith and noble character. The above laws and regulations are then linked to observations made by the author in September-December 2019 on students in Semester II of the 2018/2019 Academic Year, which shows that students are charged with many materials and tasks to hone creativity and motor activities (Angendari & Mayuni, 2018). Based on these data, it is known that there are still many students who have not mastered the competencies made by the supporting lecturers (Asih et al., 2021). The number of tasks given is several, and there are more than five tasks based on fine arts & skills. One skill-based material is making batik in groups. In terms of mastery of materials and techniques in carrying out assignments and lectures, it was still found that students lacked initiative, lacked interest, lacked enthusiasm, and lacked concentration. Some students also conveyed the difficulties in making batik, because students' basic understanding is still limited and requires a teaching material such as a module to be studied by students, so that they have preparation before practicing

batik (Isnanini et al., 2019). According to Abdul (2013: 176), the module is written with the aim that students can learn independently without or with teacher guidance. So that the learning concept of PGSD students will initially see the module by learning the basic concepts of batik first, getting to know batik motifs, materials and tools, and the stages of making batik. The selection of the module as the medium is because the module consists of material and exercises in the form of evaluation questions which are very useful for students (Kusumawati et al., 2021). This is emphasized by the understanding that the module is one of the supports for students in learning activities, whether used independently or with the assistance of a facilitator, according to Briggs Arief (2010: 6), (Huliselan, 2020) dan (Pangastuti & Huda, 2021). The same thing was conveyed by a lecturer in the Arts, Culture and Skills subject, namely Probosiwi, M.Sn., who said that students' creativity in creating works of art was still experiencing difficulties. The lecture material that will be practiced is making batik in the second semester of the 2019/2020 academic year, so researchers are interested in developing a written batik module for PGSD students (Fisnani et al., 2020).

RESEARCH METHOD

The development model used is Research and Development. This research is one of the desired research methods to produce certain products and test the effectiveness of the resulting products (Sugiyono, 2019: 297). This study aims to develop learning media. The learning media developed is a written batik module for PGSD students (Putri & Aznam, 2019). The learning media developed are related to fine arts courses, namely Cultural Arts and Skills and Fine Arts and Skills Education. The art materials developed include the history of batik, types of techniques in batik, batik motifs, understanding of written batik, written batik tools and materials, and steps for making batik, as well as an evaluation of each material (Rachmadyanti et al., 2020). The development procedure steps in this study were adapted from the Borg and Gall development model (Sugiyono, 2019: 34-37), which suggested ten steps in the R&D method developed by the Teacher Education Program staff at Far West Laboratory for Educational Research and Development in implementing strategies and development, which are; (1) Research and information collecting; (2) Planning; (3) Develop preliminary form of the product; (4) Preliminary field testing; (5) Main product testing; (6) Main field testing; (7) Operational product revision; (8) Operational field testing; (9) Final product revision; (10) Dissemination and Implementation. See Figure I.

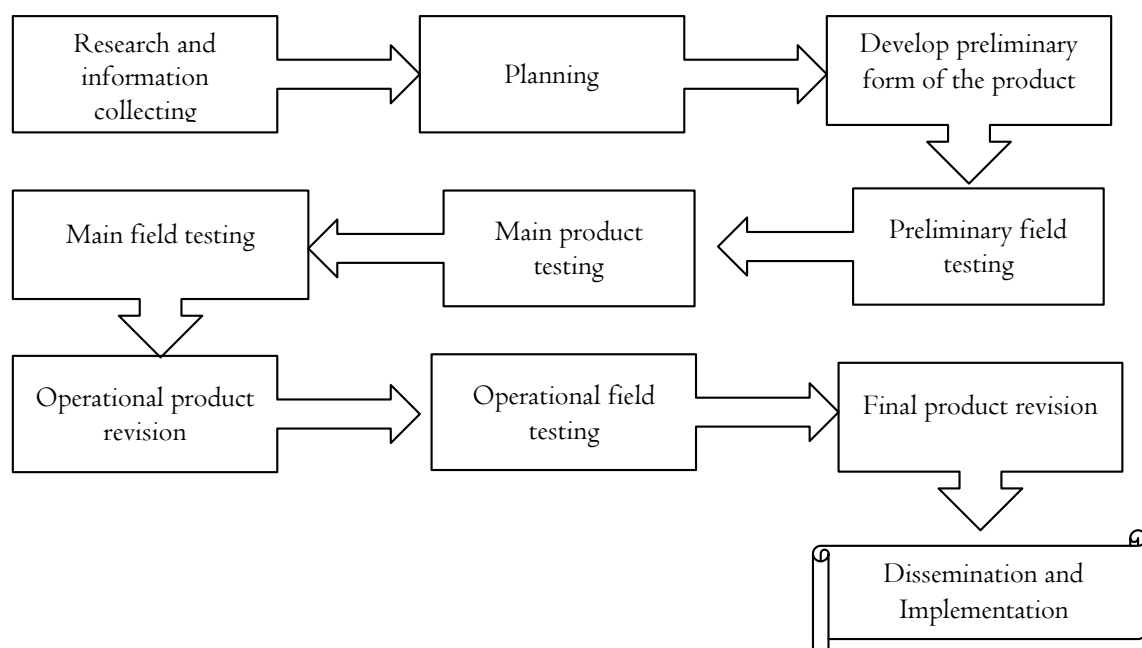


Figure I. The steps of the Research and Development Model according to Borg and Gall

Based on the stages above, the researcher simplifies it into 5 stages by considering the time that the researcher has which is impossible to complete the 10 stages completely. According to Arikunto (2013: 285), in analyzing data from a graded 4 questionnaire, the alternatives are determined which are; (1) prodigious, frequently, concur, and others show the highest gradation; (2) Plenties, frequently, disagree, and others, indicating lower ratings than those with the word “highly” added. Therefore, the condition is given a value of 3; (3) few, rarely, disagree, etc., because they are under agree and so on, are given a value of 2; (4) The least and low, rarely, controvert, which are in the lowest gradation, is given a value of 1. In this study, the research scale used in more detail is as follows; (1) Category of *strongly agree*, include: very easy to understand, very interesting, very appropriate, and very useful are given a score of 4; (2) Category of agree, include: easy to understand, clear, interesting, appropriate, and useful are given a score of 3; (3) Category of fit in includes: quite understood, quite clear, quite interesting, quite appropriate, quite useful are given a score of 2; (4) Category of disagree include: not easy to understand, unclear, unattractive, inappropriate, and not useful given a score of 1. The data that has been obtained is then calculated by the formula (Arikunto, 2011: 236) as follows.

$$N = \frac{\sum \text{Skor}}{\sum \text{Skor Maksimal}} \times 100\% \tag{1}$$

N is value, while \sum Skor is the total score obtained, and \sum Skor Maksimal is the maximum score. The score results will be converted based on Widoyoko's (2018: 109) the assessment criteria can be seen in Table I.

Tabel I . Assessment Criteria

Percentage Value	Classification	Explanation
>80	<i>marvelous</i>	Very Feasible
>60-80	<i>good</i>	Feasible
>40-60	<i>fair</i>	Feasible enough
>20-40	<i>less</i>	Less Feasible
≤ 20	<i>minus</i>	Not Feasible

RESULTS AND DISCUSSION

This development research resulted in a media in the form of a written batik module for PGSD students, see Figure 2 (a) is the Batik Module Front and Back Cover, Figure 2 (b) Title page and publisher page of Batik Module. The process of developing the module has gone through various stages of research using the Brog and Gall development model by Sugiyono (2019) which initially consisted of 10 stages.

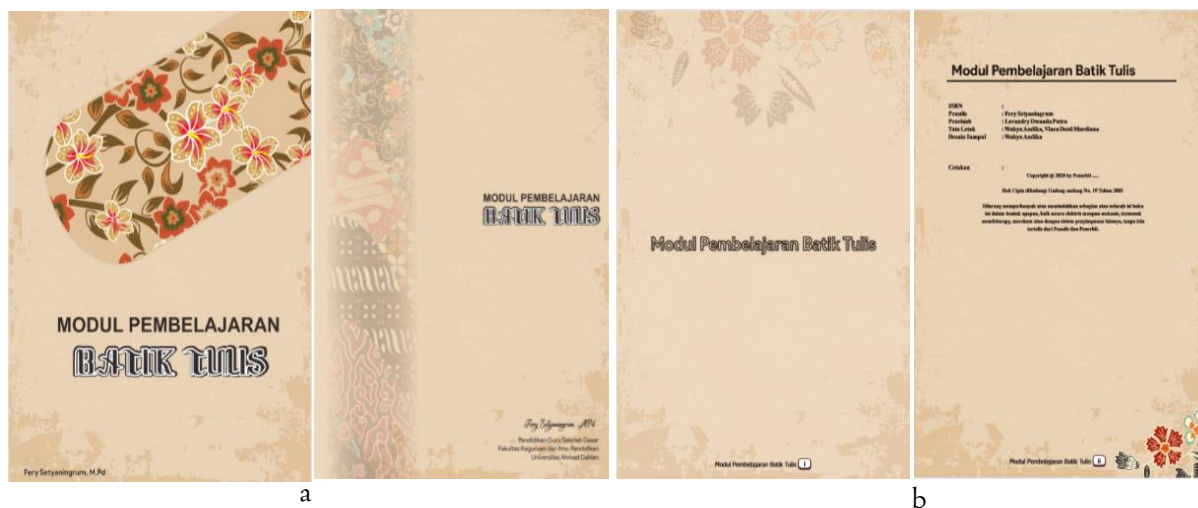


Figure 2 (a) Batik Module Front and Back Cover , (b) Title page and publisher page of Batik Module

However, the researchers limited the research to 5 stages because the Covid-19 pandemic situation caused schools to be closed for an indefinite period of time. This research stage includes the potential and problem stages, collecting information, product design, design validation, design revision, and product revision in order to produce modules that are suitable for use by lecturers and students. The development of the written batik module for PGSD students is carried out in stages from looking for potentials and problems that exist in schools when learning in class and outside, collecting information by analyzing the curriculum, observing and interviewing, designing products according to the characteristics of students, then compiling materials. in accordance with KI, KD, indicators, and learning outcomes. Then the media assessment is carried out by media validation experts and learning materials after obtaining approval from the instrument validator. Suggestions and comments from several experts are then used as expert input on the quality of the learning module. The results of the expert's assessment of the written batik module for PGSD students obtained a total score of 275.09 and an average number of 91.7. These results indicate that the Written Batik Module for PGSD Students that was developed has met the "Very Feasible" category. Based on the results of the assessments that have been described, it can be seen that SBK learning requires the use of modules because it can be used as an independent learning medium, so students can take advantage of the module even without the presence of a teacher/teacher in the classroom (Yulia Aryati, dkk, 2015) and (Ciptandi, 2019). Agustin (2019) said that good learning is one that has good and quality teaching materials and is supported by adequate facilities and infrastructure. Therefore, module teaching materials are indeed developed with good and quality written batik art material for PGSD students and of course with adequate facilities in study programs (Hikmah & Hakim, 2019) and (Winnarto et al., 2021). The development of the written batik module as a teaching material is intended so that students can develop creativity in the practice of learning fine arts (Fiyanto, 2018). Thus, the Written Batik Module for PGSD Students that has been developed is very feasible for use in lectures. Furthermore, the 5 steps of the development procedure in this study, which adapts the Borg and Gall development model in Sugiyono, are described as follows:

1. Potential and Problems

The first stage in this research is observation, information gathering and problems which include observation and needs analysis. Researchers found that teaching and learning activities are still dominated by teachers, participants are less active in learning, and lack fine arts modules, especially on written batik material. Modules as teaching materials in lectures do not yet exist, so lecturers still use ordinary PowerPoint to teach theory and practice to students, which are sourced from books and journals. Students are charged with many materials and assignments to hone their creativity and motor activities. From these data, it is known that there are still many students who have not mastered the competencies proclaimed by the supporting lecturers.

2. Data Collection

At this stage, information is extracted about the expected learning of students and appropriate solutions to the problems in learning. Lecturers and students need information about learning materials and practices in order to recognize and understand the material. The use of learning modules can be a solution to problems. This written batik module invites students to learn the material and practice of making batik art. The developed module is a written batik module. In this module, students and lecturers can process learning in groups or individually, and students have an active role in the learning process. With the written batik module, students will more easily understand the material and practice making batik works of art, especially written batik, starting from its history, tools and materials, to the manufacturing process. Then, students can work on questions to measure understanding of the material. Based on these problems, the researchers developed a written batik module as a learning module that could be used by teachers, namely lecturers and students. The module also contains learning outcomes in arts, culture, and skills lectures.

3. Product Design

Product design begins with looking for materials related to written batik, from historical sources of batik, types of batik, batik motifs, understanding of written batik, tools and materials in written batik, to the steps of making written batik. After the material was collected, the researcher made an evaluation question. After that, the researcher made a product design concept for the learning module which included the module cover page, identity or publisher page, foreword, table of contents, introduction, concept map, lecture learning achievements, content material, evaluation questions, bibliography, and identity of the compiler, cover behind. The development design for this written batik module uses the Corel Draw application. An example of the module display design being developed is shown in Figure 3 (a) Evaluation of Batik Module, (b) Bibliography and biographical data of the author of the Batik Module.

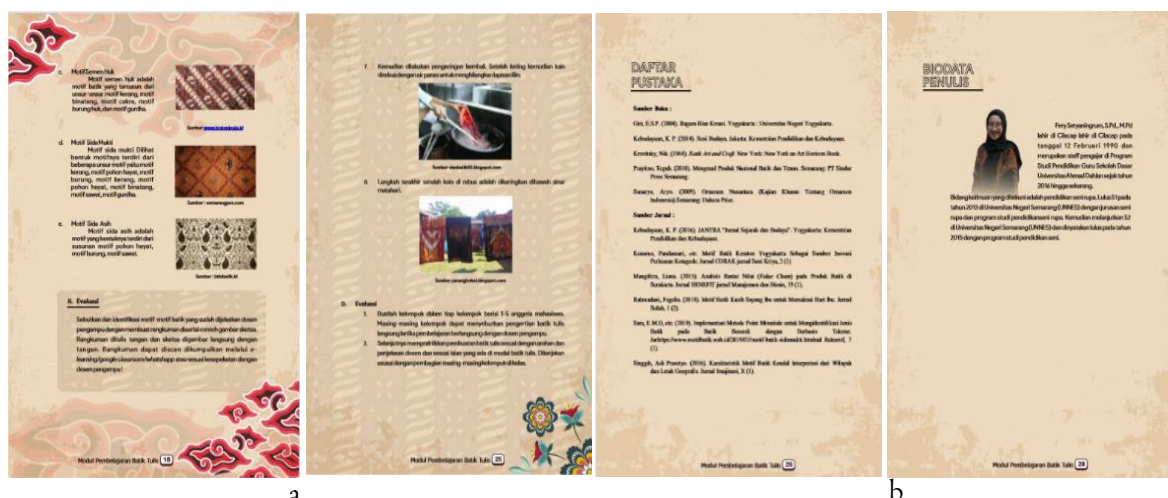


Figure 3. (a) Evaluation of Batik Module, (b) Bibliography and biographical data of the author of the Batik Module

4. Design Validation

Design validation is done by validating the validation expert. The validation experts in this study were media experts by Lovandri Dwanda Putra, M.Pd., materials experts by Probosiwi, M.Sn., learning experts by Sagaf Faozata Adzkie, S.Sn, M.Pd. This validation stage aims to determine the expert's assessment of the media developed by the researcher. Before validating to the expert, the researcher validates the instrument to the instrument validation expert to be approved. Then the experts validate the written batik module through an assessment instrument that has been approved by the instrument validator. The assessment instrument is presented in the form of qualitative data containing questions developed according to experts. The assessment from media experts obtained a score of 52 with a value of 92.85 so that it received an assessment in the very feasible category. Media experts concluded that the visual arts learning module was feasible to use. The assessment from learning experts obtained a score of 51 with a value of 91.07 so that it received an assessment with a very feasible category. Learning experts conclude that the visual arts learning module is very feasible to use. The assessment from the material expert obtained a score of 62 with a value of 91, 17 so that it received an assessment in a very feasible category. The material expert concluded that the visual arts learning module was feasible to use.

5. Design Revision

At the design improvement stage, namely the design revision stage, which aims to correct deficiencies in the visual arts learning module on paste techniques based on input and suggestions from validation media experts, material experts, learning experts. The researcher conducted a revision analysis in accordance with input from experts who had conducted a trial assessment of the fine art learning

module with patching techniques. At this stage there are still some inputs and suggestions by experts because there are still several components that need to be added and improved. In this batik tulis module for PGSD students, material and learning experts do not provide revisions because they are considered very suitable for the learning process in class. In Figure 3 (a) is the Introduction and concept map of the Batik Module, Figure 4 (b) Learning achievements and material content for the Batik Module.

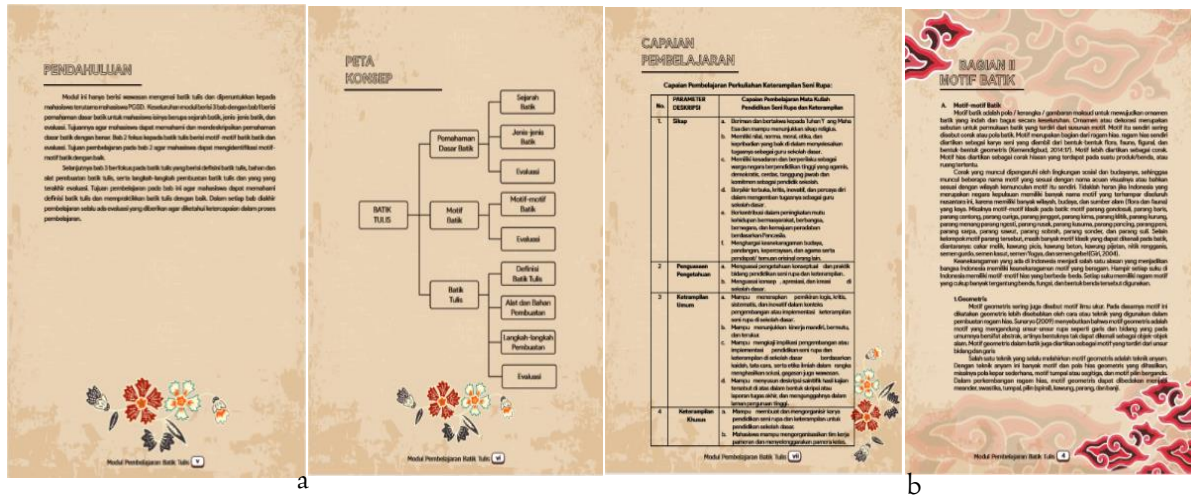


Figure 4. (a) Introduction and concept map of Batik Module, (b) Learning achievements and material content for the Batik Module

6. Product Revision

Based on the results of the assessment of the validation experts on written batik, there are several parts of the module that need to be revised based on the suggestions and comments that have been given. The improvement of this written batik module after revision is as follows; Revision by the Media Expert. Based on the validation of media experts, there are inputs for the written batik module in the cover section and the author's biodata which is still not neat and not aesthetically pleasing in its arrangement, Figure 5 (a) is the Front cover of the module before revision, (b) Front cover of the module after revision.

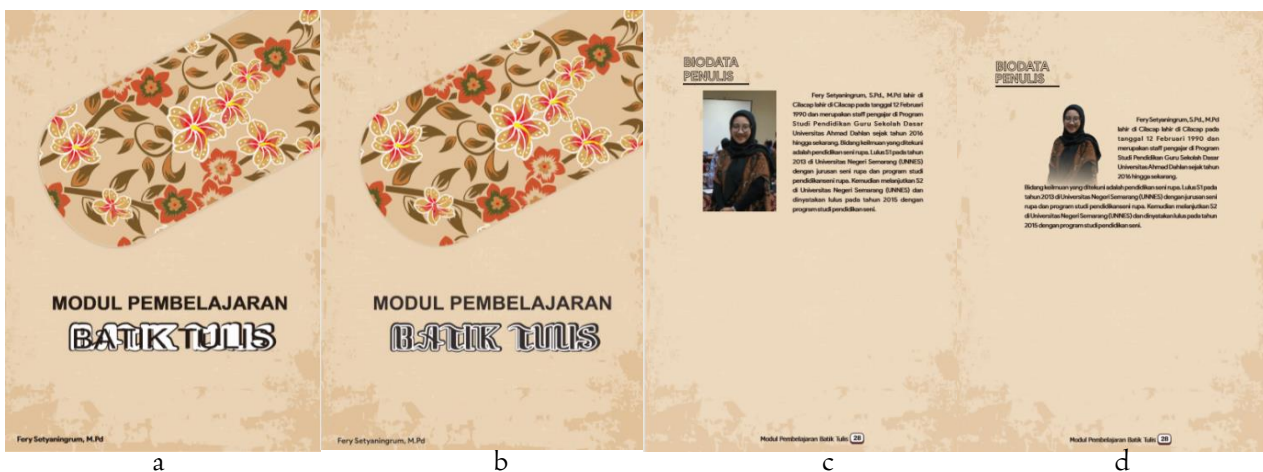


Figure 5. (a) Front cover of the module before revision, (b) Front cover of the module after revision, (c) Author bio before revision, (d) Author bio after revision

Data Analysis

Data analysis was carried out after conducting trials. Analysis of the data used in this study is the result of the assessment test of three expert validators, namely media experts, material experts, and learning experts on the written batik module for PGSD students.

1. Qualitative Data Analysis

The analysis used to process the data in the form of criticism, suggestions, conclusions or responses from media experts, material experts, learning experts, linguists and responses from teachers; (1) Data Analysis by the Media Expert; the validation of the media expert, namely Lovandri Dwanda Putra, M.Pd, in addition to the assessment of the media expert with a scoring system, the validation expert also provided criticism, suggestions, and feedback for the development of the paste technique art learning module. The response was in the form of improvements related to the photo in the author's bio to make it more aesthetic, for the cover as well as the font, some were damaged so they had to be tidied up; (2) Data Analysis by Material Expert; material expert validation, namely Probosiwi, M.Sn, in addition to the assessment of material experts with a scoring system, expert validation also provides criticism, suggestions, and responses for the development of the paste technique fine art learning module. The material expert's response was given a Feasible category without revision; (3) Data Analysis by Learning Experts; the validation of learning experts, namely Sagaf Faozata Adzkia, S.Sn, M.Pd, in addition to the assessment of learning experts in the form of scores, expert validation also provides criticism, suggestions, and responses for the development of the paste technique fine art learning module. The response aims to revise the module that will be developed to be better. For learning validation experts provide a Feasible category without giving revisions. Based on the qualitative data, the patchwork art learning module received an "Very Feasible" rating. The inputs and comments given by the experts indicate that the written batik learning module for PGSD students is "Very Feasible", but the material needs to be explained again. The input given by the experts is then used as evaluation material so that this written batik module becomes better.

2. Quantitative Data Analysis

Quantitative data analysis is data processing in the form of scores from product validation expert assessments. The presentation of the results of the quantitative analysis is shown in Table 2, namely the Data Analysis Product Validation Test Table.

Table 2. Data of Product Quality Validation Test Results

Validation Expert	Value
Media Expert	92, 85
Material Expert	91, 17
Learning Expert	91, 07
Total	275, 09
Average	91, 7
Category	Very Feasible

Based on the Table 2, the results of the assessment that have been carried out by media expert validation, material experts, learning experts get an average score of 91.7 so that the written batik module for PGSD students is said to be in the "very feasible" category. The conclusion from the results of the overall expert validation assessment is that the learning module is very suitable to be used in the SBK and PSRK learning process.

CONCLUSION

In conclusion, the steps for developing the written batik module for PGSD students are limited to the implementation of stage 5 through the Borg and Gall stages. In the quality test by media expert

validation, material expert, learning expert got a total score of 275.09 and an average value of 91.7 so that the written batik module for PGSD students was categorized as "very feasible". The conclusion from the results of the overall expert validation assessment is that the learning module is very suitable to be used in the SBK and PSRK learning process.

REFERENSI

- Abdul, M. (2013). *Perencanaan Pembelajaran (Mengembangkan Standar Kompetensi Guru)*. Remaja Rosdakarya.
- Agustin, T. (2019). Pengembangan Bahan Ajar Seni Budaya (Seni Rupa) Kelas VII Di Smp Negeri 4 Surabaya. *Journal Education and Development*, 7(3), 312–317.
- Angendari, M. D., & Mayuni, P. A. (2018). *Pengembangan Buku Ajar Mata Kuliah Desain dan Dekorasi Tekstil*. 19, 77–84.
- Arief, S. (2010). *Media Pendidikan*. PT Rajagrafindo Persada.
- Arikunto, S. (2011). *Prosedur Penelitian: Suatu Pendekatan Praktik Edisi Revisi VII*. Rineka Cipta.
- Arikunto, S. (2013). *Dasar-Dasar Evaluasi Pendidikan*. Bumi Aksara.
- Asih, D. P., Syamwil, R., & Qudus, N. (2021). *Journal of Vocational Career Education Online Learning Model To Improve Student 's Practical Skills In Batik Course*. 6(1), 28–36.
- Ciptandi, F. (2019). *Traditional Batik Tuban Innovation Through Motive Development Uses jBatik Software*. 207(REKA), 88–91. <https://doi.org/10.2991/reka-18.2018.19>
- Fisnani, Y., Utanto, Y., & Ahmadi, F. (2020). The Development of E-Module for Batik Local Content in Pekalongan Elementary School. *Innovative Journal of Curriculum and Educational Technology*, 9(1), 40–47.
- Fiyanto, A. (2018). *Pemanfaatan Seni Kolase Sebagai Produk Kreatif Untuk Pengembangan Karya Proyek Studi Mahasiswa Jurusan Seni Rupa FBS UNNES*. 10(2).
- HULISELAN, L. R. (2020). *Perancangan Modul Tutorial Pembuatan Motif Batik Secara Digital Untuk Siswa Kelas Xi Jurusan Kriya Tekstil Smk Negeri 7 Ambon Laksmi Rosana Huliselan*.
- Isnani, D. W., Trapsiladi, P., Widyatmoko, Z., Laela, E., Rohana, I., Salma, Masiswo, Setiawan, J., Atika, V., Satria, Y., Haerudin, A., Briegel, G., Mandegani, Arta, T. K., Ekarini, N., Sulistyaningsih, T., & Syabana, D. K. (2019). Designing batik and artificial batik differentiator applications using tensorflow. *Proceeding Indonesian Textile Conference*, 1, 1–7.
- Kusumawati, N., Rahmadyanti, E., & Sianita, M. M. (2021). Batik became two sides of blade for the sustainable development in Indonesia. In *Green Chemistry and Water Remediation: Research and Applications*. Elsevier Inc. <https://doi.org/10.1016/b978-0-12-817742-6.00003-7>
- Pangastuti, F., & Huda, A. (2021). *Buku Panduan Keterampilan Batik Tulis Sederhana untuk Anak Tunagrahita pada Mata Pelajaran Kemandirian Tingkat SMA*. 7(November), 84–90.
- Putri, A. S., & Aznam, N. (2019). The Effect of The Science Web Module Integrated on Batik's Local Potential Towards Students' Critical Thinking and Problem Solving (Thinking Skill). *Journal of Science Learning*, 2(3), 92–96. <https://doi.org/10.17509/jsl.v2i3.16843>
- Rachmadyanti, P., Rahmawati, V., & Adhe, K. R. (2020). *How to Integrate Batik Kenanga as a Learning Resource for Integrated Learning at Elementary School*. 491(Ijcah), 128–136. <https://doi.org/10.2991/assehr.k.201201.022>
- Rika Amelia Hikmah, & Ramalis Hakim. (2019). Pengembangan Modul Seni Budaya Berbasis Pendidikan Karakter Untuk Siswa Kelas X Di Smk. *Gorga Jurnal Seni Rupa*, 08(November).
- Sintawati, Sari, I. D., & May, A. (2020). Perancangan Sistem Informasi Penjualan Perlengkapan Tidur Berbasis Web Studi Kasus Toko Batik Galinah Jakarta. *Folio*, Vol 1 No 1, 1–9.
- Sugiyono. (2019). *Metode Penelitian dan Pengembangan (Research and Development R&D)*. Alfabeta.
- Winnarto, M. N., Yulianti, I., & Rahmawati, A. (2021). Penerapan Framework Codeigniter Pada Pengembangan Website E-Commerce Batik Tulis HR Ambar. *Swabumi*, 9(1), 1–8. <https://doi.org/10.31294/swabumi.v9i1.9813>
- Yulia Aryati, Agusti Efi, Y. (2015). Modul Pembelajaran Batik Kelas IX Smk Negeri 8 Padang. *Journal of Home Economics and Tourism*, 7, 3.