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# PROJECT-BASED MODULE FOR STYLE AND LOOK COMPETENCY IN FASHION VOCATIONAL HIGH SCHOOL

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ABSTRACT

Basic Fashion Design is a crucial competency for fashion vocational high schools to prepare students for the industry by integrating 21st-century skills. However, students often struggle to generate original ideas due to limited learning resources and the lack of relevant learning approaches. This study aims to develop a project-based module for achieving learning outcomes in drawing *style and look*, and to enhance students' creativity in a fashion vocational high school. This research employed the Research and Development method using the Borg and Gall model, which consists of ten stages. Data were collected through interviews, questionnaires, and observation sheets, all of which were validated by experts with very high Aiken's V values. The results showed that the developed project-based module was categorized as "Very Good" based on expert, teacher, and student evaluations. The experimental class demonstrated grater improvement, with the mean score increasing from 1.974 (pre-test) to 3.09 (post-test), compared to the control class which increased from 2.017 to 2.50. The difference was statistically significant ($\alpha < 0.05$), indicating that the module was effective in enhancing students' creativity. Therefore, the project-based module showed validity and effectiveness in enhancing students' creativity in achieving the intended learning outcomes.

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## INTRODUCTION

The education process continues to evolve, requiring students to possess essential skills such as problem-solving, creativity, critical thinking, communication, collaboration, and digital skills in the 21st century. [1], [2]. These digital changes present new opportunities and challenges that drive innovation in education to produce competent human resources who are ready for work. [3]. The fashion field is one of the key sectors in Indonesia's creative economy, contributing to employment opportunities for around 27.4 million workers, especially for vocational high school graduates. This field continues to grow and requires human resources who technically skilled and also creative in developing fashion designs [4]. Therefore, the increasing demand for creative workers highlights the role of vocational high school should support the development of students' creativity through both conceptual knowledge and practical design skills.

Aligned with this need, the Independent Learning Curriculum emphasizes student-centered learning, allowing students to actively construct their own knowledge. [5]. Vocational high school has a major influence on the formation of students' character and competence in fashion education. [6]. In Basic Fashion Design learning, *style and look* as key element are developed to help students recognize different ways of dressing and generate visual inspiration appropriate to social and cultural contexts. Style reflects individual preferences, personality, and background, which have historical roots. [7], while look represents how individuals or groups express social, cultural, and even political identity [8], [9]. Both elements are essential in the design process, as they support the development of visual ideas and the communication of design concepts. However, the application of these elements requires students to engage in a creative process in order to interpret ideas from various references and translate them into designs. As a result, students often face difficulties in developing original ideas, thus requiring learning support that fosters independent exploration.

Although fashion vocational high school aims to teach practical and creative skills, learning in the digital age has created several challenges for students. Based on initial observations, many students struggle to understand material on drawing styles and appearance. Students tend to rely on overly complex visual references from the internet, making it difficult to create new designs. Spending more time copying these designs contributes to a backlog of assignments and poor learning outcomes. Preliminary observations conducted in two different fashion vocational high schools showed that only 57.14% and 68.57% of students achieved learning completeness. These findings indicate that students' creativity and understanding are still not optimal. Therefore, there is a need to develop a structured learning module that can support students in understanding *style and look* concepts while encouraging creativity through project-based learning. Therefore, appropriate teaching tools are needed to support students in understanding these concepts while also encouraging creativity and independent learning. [10].

The teaching tools needed ideally have characteristics that support self-instruction and structured learning, such as teaching modules. In addition to supporting teacher guidance, modules allow students to learn independently by overcoming space and time limitations. [11]. Through modules, learning outcomes can be translated into sequenced learning activities based on the learning trajectory and supported by diagnostic assessment to identify students' initial abilities. [12]. This structure encourages students to engage in meaningful learning experiences while actively exploring ideas and developing creativity during the learning process. Therefore, modules require an appropriate learning model that can integrate these characteristics into structured and meaningful learning activities.

Teaching modules can effectively support these learning needs when they are integrated with project-based learning. [13], [14]. Through project assignments, students work together to explore ideas, communicate with peers, and solve real problems while producing meaningful learning outcomes. [15], [16]. In this study, the stages of project-based learning are integrated with creativity dimensions to encourage students to explore the learning process through idea conceptualization, problem solving, and project implementation in drawing *style and look.* [15]. This approach in fashion vocational high schools provides students with the opportunity to develop ideas, experiment with design concepts, and refine their creative work through an iterative process. Through this structured series, students remain actively engaged, develop creative ideas, and follow a clear learning path to achieve the desired learning outcomes.

Creativity is an essential competency for facing 21st-century challenges in the digital era, where students are already familiar with technological acceleration. Various digital conveniences sometimes make students feel overstimulated and confused when creating new and fresh fashion illustrations. Therefore, the Independent Learning Curriculum emphasizes original ideas, express unique perspectives, and develop flexible thinking to solve problems through creativity [2], [17]. In fashion

vocational high school, creativity is essential because it forms the basis for producing original and aesthetic fashion designs that reflect students' ideas and interpretations of *style and look* [18], [19]. Therefore, the learning environment must support students in exploring ideas, taking creative risks, and developing original work independently and collaboratively [2]. Approaches such as project-based learning, as presented in the module, serve as effective strategies to foster creativity in a structured, contextual, and sustainable manner. However, previous research indicates that the challenges students often face in developing creativity in drawing *style and look* are influenced by limited learning resources, ineffective teaching methods, and limited access to project-based modules that support independent learning [11], [20]. The conceptual framework of this study integrates the stages of the project-based module with creativity dimensions in fashion learning, shown in Figure 1.

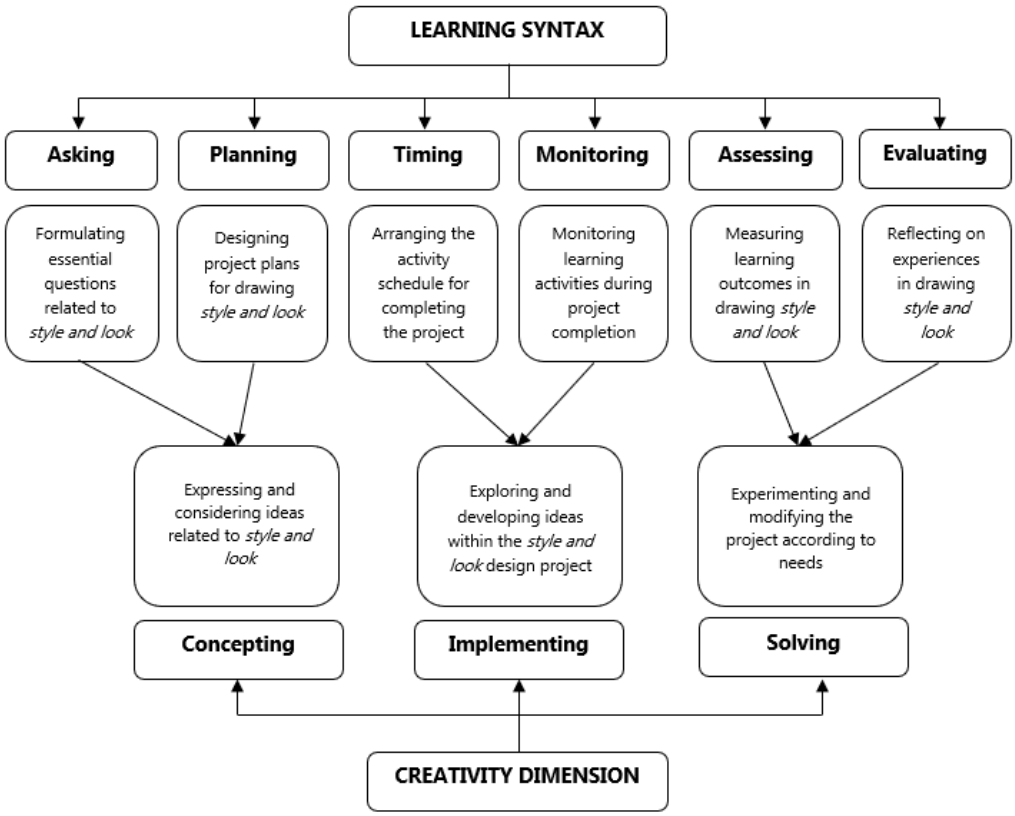


Figure 1. Project-Based Module –Creativity Learning Framework

Integration of modules with project activities on *style and look* elements encourages both theoretical understanding and creative exploration in Basic Fashion Design. Through this approach, students are expected to acquire the conceptual and practical skills necessary to respond to the ever-evolving dynamics of the fashion industry. [21]. Based on this background, this study aims to develop a project-based module to enhance students' creativity in drawing *style and look* in class X of Fashion Vocational High School. Unlike previous studies that apply project-based learning or instructional modules separately, this study integrates both and incorporates QR code-based access to YouTube videos to stimulate students to explore fashion references independently. The project-based module supports a meaningful educational process aligned with the creativity needs of fashion vocational high school students.

## METHOD

This study refers to the ten stages of Borg and Gall. [22] Research and Development model including needs analysis, planning, product development with expert validation, limited and larger trials, revision in the last three stages, and ending with dissemination. The research participants who were selected using purposive sampling were teachers and students of class X fashion major at SMK Muhammadiyah Gamping. The process began with a needs analysis conducted through literature review and field study to identify learning outcomes and students' characteristics. Then, a project-based module was designed based on learning outcomes, where the cover, materials, and assessment components were arranged to stimulate student learning during the planning stage. The draft was developed by considering students' preferred language and visual styles, then reviewed by four experts and revised according to their suggestions. The product upgrade was utilized before conducting limited trials involving four teachers and eight students, followed by a larger trial with six teachers and thirty-one students. A quasi-experimental design using pretest and posttest non-equivalent control groups was applied to examine students' creativity improvement after using the module. Revisions were continuously made during each stage based on trial results and classroom observations. The final product was disseminated through scientific publication and classroom implementation.

Data was collected through interviews, questionnaires, and observations with instruments that were analyzed descriptively. Student creativity was measured using observation sheets based on indicators such as fluency, originality, collaboration, elaboration, and implementation. The collected data were analyzed descriptively to evaluate the feasibility of the module. Content validity of the instruments was assessed using Aiken's V based on expert judgment, while reliability was evaluated using Cohen's Kappa for observation data to determine inter-rater agreement and Cronbach's Alpha for questionnaire data. The effectiveness of the module was analyzed using paired sample t-tests and independent sample t-tests through SPSS 21 after conducting prerequisite tests, including normality and homogeneity tests with a 5% significance level.

## RESULTS AND DISCUSSION

### Result

The results describe the development of a project-based module following the stages of the Borg and Gall model. Preliminary studies revealed that learning *style and look* require high creativity and technical skills in accordance with the SKKNI KEP.116/MEN/III/2007 in the field of fashion design. Although project-based learning has been implemented, it has not been optimally supported by teaching modules. This limitation affects students' ability to explore references based on trends, then translate these ideas into *style and look* drawing. The developed module includes several components aligned with the Independent Curriculum framework to address these needs. First, learning materials aligned with learning achievements and learning objective flow to stimulate creativity in concepting, implementing, and solving. [2], [17]. Second, the module applied project-based learning syntax in three stages (asking-planning, timing-monitoring, and assessing-evaluating) to guide students' activities. [15]. Last, the module structure included presentation of materials, visual displays, guidelines, exercises, and assessments to support the *style and look* of drawing skills [23].

The validation began with the evaluation of research instruments by two experts, covering the student creativity instrument and the learning implementation instrument. The results showed that both instruments obtained scores of 33 and 34 were categorized as very good. These findings reveal that both instruments are suitable for measuring students' creativity and monitoring the implementation of project-based learning activities. Next, the product was validated by two experts in terms of content and presentation aspects. The results showed a total score of 77.5, which was categorized as very good, showing that the module is appropriate for classroom implementation. These findings suggest that the

module has relevant content, clear presentation, and is capable of supporting project-based learning in *style and look* drawing. These results were further supported by the analysis of validity and reliability using Aiken's V and Cohen's Kappa, as shown in Table 1 below.

Table 1. Validity and Reliability of the Instrument and Product

| No | Evaluation Object | Validity (V-Aiken) | Reliability (Kappa) | Explanation |
|---|---|---|---|---|
| 1 | Creativity & Implementation Instruments | 0,917 (High) | 0,262 (Moderate) | Valid with moderate agreement |
| 2 | Module Product | 0,96 (High) | 0,483 (Adequate) | Valid with fairly high agreement |

The project-based module, validated by experts, focused on using language according to the KBBI (Indonesian Dictionary) and citing *style and look* images from appropriate sources. After the revision stage based on this validation, a pretest was conducted in the control and experimental classes, with both average scores of 2.017 and 1.974. The study then proceeded to the limited scale trial, and the evaluation results are shown in Table 2.

Table 2. Limited Scale Trial Result

| Resp | Average Score | | | Total Score | Criteria |
|---|---|---|---|---|---|
| | Material | Syntax | Language & Presentation | | |
| Teacher | 41,50 | 14,75 | 22,00 | 78,25 | Very Good |
| Students | 35,63 | 14,50 | 21,63 | 71,75 | Very Good |

The limited scale trial involved four teachers and eight students of class X Fashion Vocational High School. The results showed mean scores of 78.25 from teachers and 71.75 from students, both categorized as very good. These results reveal that the project-based module was considered feasible to proceed to the larger scale trial. Several revisions were made, including linguistic improvements and visual enhancements to improve readability and student engagement.

Table 3. Large Scale Trial Result

| Resp | Average Score | | | Total Score | Criteria |
|---|---|---|---|---|---|
| | Material | Syntax | Language & Presentation | | |
| Teacher | 41,83 | 14,83 | 22, 67 | 79,33 | Very Good |
| Students | 36,94 | 14,69 | 21,88 | 73,50 | Very Good |

A larger trial involved six teachers and sixteen students of class X Fashion Vocational High School. The results showed mean scores of 79.33 from teachers and 73.50 from students, both categorized as very good and showing that the module was suitable for dissemination. The difference in scores suggests varying perceptions of effectiveness between teachers and students. Minor revisions were conducted, such as adding color to the learning flow diagram to support teacher comprehension.

The initial equilibrium test using the independent sample t-test showed a significance value of 0.730 ($p > 0.05$), showing no significant difference in initial creativity between the experimental and control classes. The prerequisite tests also confirmed that the data were normally distributed (Kolmogorov–Smirnov, $p > 0.05$) and homogeneous (Levene's test, $p = 0.857$), allowing further hypothesis testing.

Table 4. Results of Creativity Improvement and Differences

| Analysis | Comparison | Mean Difference | t | p | Interpretation |
|---|---|---|---|---|---|
| Paired Sample t-test | Pre – Post Experimental | -13.375 | 24.949 | <0.001 | Significant improvement |
| Independent Sample t-test | Post Experimental – Control | 7.063 | 5.555 | <0.001 | Significant difference |

The paired sample t-test showed a significant increase in student creativity in the experimental class after the implementation of the project-based module ($p < 0.001$). Furthermore, the independent sample t-test revealed a significant difference between the experimental and control classes in the post-test results ($p < 0.001$). In addition to statistical significance, the mean difference values signify a substantial improvement in creativity in the experimental group, suggesting a meaningful practical impact of the module. This implies that the project-based module not only produces statistically significant results but also contributes to a noticeable enhancement in students' ability to generate and develop fashion design ideas.

Discussion

The main difficulty in improving creativity among fashion vocational high school students is the limited availability of project-based modules for drawing *style and look* competency. The developed module was intended to facilitate learning achievement according to assessment references by providing freedom of exploration through project activities. [24]. The project-based learning syntax also supported students in concepting, implementing, and solving design-related problems through reflective and creative activities. One of the most frequently explored project-based learning activities involved identifying fashion styles through trend exploration reflected in visual designs. These activities encouraged students to explore ideas, solve design problems, and express creativity through fashion illustrations. [5]. The novelty of the module also lies in its visual collage-based learning resources combined with historical descriptions and practical exercises, allowing students to broaden their perspectives from various fashion references. [29]. In addition, QR code access was integrated to enrich visual references and source citations through curated digital content. The effectiveness test showed that students produced more creative *style and look* illustrations compared with conventional classroom methods. Positive responses from teachers and students also reflected that the module was practical and engaging for project-based learning activities in Basic Fashion Design classes.

The module introduces QR code access that directly connects students to runway videos via YouTube from high-end fashion brands representing various styles and looks. This feature enabled students to improve visual literacy and observe fashion trends through real-life runway presentations [25]. By scanning QR codes, students could explore fashion styles, identify design elements, and understand fashion trends through curated runway references instead of randomly searching digital content. Through these visual references, students also learned to recognize forms of human psychology reflected in clothing preferences, such as gender expression, emotional expression, and social movements. This curated access helped students understand style characteristics and target consumer preferences from broader global perspectives. The integration of text explanations with runway visualization supported multidisciplinary learning in Fashion Education [26]. As a result, students are able to utilize digital creativity wisely from the aspects of aesthetics, fashion interpretation, and market-oriented thinking.

Improved visual examples enable students to better observe design details and translate them into their own fashion drawings. In this study, creativity is reflected in students' ability to explore various fashion *styles and look*, gather visual inspiration from trends, and translate these ideas into design drawings. In the context of fashion vocational education, this creative process supports the development

of visual ideation, style exploration, and the ability to interpret fashion trends into design outcomes. This process occurs through visual exploration, experimentation with style elements, and the manual translation of ideas into design representations. [19]. Through this learning structure, students are supported in understanding the design process, distinguishing between *style and look*, exploring sources of inspiration, and developing fashion designs based on these concepts.

Project-based learning encourages students to explore ideas, experiment with design concepts, and produce original fashion designs, thereby strengthening creativity and engagement, as reported in previous studies. [30], [31]. Therefore, learning materials should integrate procedural guidance with creative tasks, enabling students to simultaneously develop technical skills and original design ideas. [32]. Previous studies have reported similar results, suggesting that well-structured language and effective visual design play an important role in enhancing the usability of educational materials. These findings are consistent with previous research showing that project-based learning environments can foster creativity and innovation in fashion vocational high school. The improvement in students' creativity after using the project-based module can be interpreted through constructivist and humanistic learning perspectives. From a constructivist perspective, creativity develops when students actively construct knowledge through exploration, problem solving, and creating meaningful products. [27]. At the same time, the learning process reflects humanistic principles, allowing students to explore ideas based on their personal interests and creative perspectives. [28].

The positive responses from both teachers and students in the limited and larger scale trials signify that the developed module has reached an appropriate level of practicality for classroom implementation. As a structured learning resource, the module provides project steps and learning materials that guide classroom activities while still allowing space for student exploration. [24]. In a vocational training environment, clear instructions and easy-to-read visual materials are essential, as students rely heavily on procedural guidance when performing practical tasks. Therefore, improving the wording and visual presentation, including the use of clearer graphics and more structured layouts, enhances the accessibility of the module. These components enable the module to function not only as a learning tool for students but also as a practical guide for teachers in organizing project-based learning activities. The small differences in evaluation scores between teachers and students may reflect their different perspectives, with teachers emphasizing instructional clarity and curriculum relevance, while students focus more on ease of use during learning activities.

Despite the positive results obtained, several limitations in this study need to be acknowledged. Treatment in the experimental class was conducted in two sessions on the same day due to time constraints, which could affect the optimal effectiveness of the intervention. In addition, observations of creativity were only conducted in the final treatment session, and the control class was taught using the teacher's usual methods, without structured intervention from research staff. These conditions may affect the results of the comparison between the experimental and control groups. It is recommended that future research use a fully experimental design with stronger control conditions and monitoring of student creativity over a longer period of time. Further development of this module could also include additional digital support to support a more adaptive and technology-based learning environment.

## CONCLUSION

The development of a project-based module for drawing *style and look* for class X students in Fashion Vocational High School shows its potential effectiveness in enhancing student creativity. The module was developed using the Borg and Gall research and development model to support learning in drawing *style and look*. It includes learning materials, project-based learning steps and creativity aspects that help students explore fashion concepts and develop their design ideas. The results of expert

validation and field trials related to the module confirmed that the content, learning procedures, and presentation aspects had met the eligibility criteria. Furthermore, the effectiveness test showed a significant improvement in student creativity, as reflected in the differences between the experimental and control classes after the implementation of the module.

These results reveal that combining project-based learning with learning modules contributes to the purposeful understanding of students in the fashion vocational high school. Through project-based activities, students are encouraged to explore ideas, experiment with design concepts, and translate their knowledge into visual design outcomes. Learning experiences like this can elaborate of both students' design skills and creative ideas as key skills in fashion vocational high school.

The developed module can therefore be used as an alternative instructional resource to support the implementation of project-based learning in Basic Fashion Design courses. Teachers can utilize and adapt the module to suit different learning outcomes and classroom situations. Future research is recommended to expand the development of similar modules for other fashion design competencies, such as digital illustration or trend forecasting, as well as to implement them in more varied learning environments. In addition, longer instructional periods and more flexible learning schedules are suggested to better support students' exploration of fashion styles, development of design ideas, and completion of project-based tasks.

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