

Research Article

Improving Students' Creativity Through Modern Puppet Project Learning Model in Senior High School

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Abstract: This study aims to improve students' creativity through the application of project-based learning models (PjBL) with modern puppet media in fine arts subjects at the Senior High School (SMA) level. The background of this study is based on the low creativity of students due to the conventional approach to fine arts learning and the lack of integration of media and technology in learning. The study was conducted as Classroom Action Research (CAR) with a descriptive qualitative approach implemented in class XI of SMA Negeri 46 Jakarta. Data collection techniques were carried out through observation, interviews, documentation, learning outcome tests, and questionnaires. The results of the study showed that the application of project-based learning models with modern puppet media significantly increased teacher and student activity in the learning process, improved learning outcomes, and received positive responses from students. Modern puppets have proven to be an effective medium in stimulating imagination, strengthening local cultural values, and building student character. This study recommends the use of creatively modified traditional media as an educational tool in developing student creativity in the era of the independent curriculum. The results of the study showed that the application of project-based learning models with modern puppet media significantly increase teacher and student activities in the learning process, improve learning outcomes, and receive positive responses from students. Modern puppets have proven to be an effective medium in stimulating imagination, strengthening local cultural values, and building student character. This study recommends the use of creatively modified

Keywords: *Creativity; project based learning; modern puppetry; fine arts learning; high school*

1. Introduction

Fine art learning has an important role in developing students' creativity, imagination, and self-expression. However, in practice, art learning in schools is still often focused on achieving technical end results and copying existing examples. Many teachers still use conventional learning approaches that tend to limit students' exploration space, both in terms of themes, techniques, and media. As a result, students only follow instructions without being given the opportunity to explore original ideas and express personal experiences or views through their artwork. In addition, fine art learning provides students with the ability to understand and gain satisfaction in responding to works of art, both their own rich creations or works of art created by others. One form of fine art learning is drawing. The existence of drawing activities in fine arts learning, children have the freedom to develop their creativity. Along with the times, science is also growing. In addition, in the current globalization era, competition is also becoming increasingly fierce. So that each individual is required to prepare mentally in order to face future challenges. Therefore, creativity should be developed early, especially at high school age. Efforts to develop creativity at high school age are important, one of which is through drawing activities. The use of new media and technology in fine arts learning is still minimal, even though it can open up great opportunities in stimulating student creativity in this digital era. The lack of integration between fine arts and the context of daily

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life, local culture, and social issues also makes fine arts less relevant to students. In addition, some students feel less confident in creating art for fear of being wrong or not meeting the teacher's expectations. It is important to formulate art learning strategies that encourage freedom of expression, exploration of various techniques and media, and collaboration. This effort is expected to create a more enjoyable and meaningful learning atmosphere and be able to increase student creativity as a whole. According to Edward de Bono [1], creativity will not grow if students are only directed to follow existing patterns or methods. Therefore, teachers need to create situations that allow students to think laterally and find new ways of completing fine art tasks. According to James J. Gallagher (1985), the definition of creativity is a mental process carried out by individuals in the form of new ideas or products, or combining between the two which will eventually be attached to themselves. The main factors that limit creativity education in higher education institutions are analyzed from the point of view of the macro environment of society and the internal education system. These factors are the negative influence of traditional culture, the one-way direction of social mobility, and the superficial theory of creativity education. imperfect education operation mechanism, low creativity of teaching staff, and insufficient education investment. Then, which includes upholding the awareness of creativity education among which facilitating various channels for the flow of trained personnel and building a creativity education theory with characteristics. improving the operation mechanism of creativity education. building a contingent of teachers with creativity, perfecting the education investment system, and utilizing funds with the best efficiency. Enhancing creativity in students is an important goal of education. Art education, as one part of the curriculum, can play an important role in developing students' creativity and imagination. Art teaches students to understand shapes, colors, and textures, and teaches students to think critically and see the world from different perspectives. Art can also help students develop social and emotional skills. Through art, students can learn to work together, share ideas, and give and receive positive feedback. They can also develop critical thinking skills, face challenges, and find creative and innovative solutions. Art learning can be developed through various techniques and media, such as painting, drawing, making 3D art, dance, music and theater. Schools can assist students in developing their creativity by offering diverse and engaging art lessons. Students can also be given opportunities to engage in art activities outside of class hours, such as art festivals, art exhibitions, or art competitions. By using illustration drawing materials, students are assigned to create puppet characters according to the group theme. The puppets are then used in performances during art lessons at school. Because learning fine arts by using puppets is an effective approach to develop students' creativity while preserving local culture. Wayang also has the cultivation of character values. By integrating wayang in art learning, students not only learn about art techniques and aesthetics, but also understand the cultural and moral values contained therein. This approach is in line with the holistic goal of education, developing students' cognitive, affective and psychomotor aspects.

The existence of modern puppets has finally become a dynamic in itself that illustrates the positioning of these puppets, within the scope of imaging traditional cultural products within the framework of community life. The emergence of modern puppets as a transformation of traditional puppets into contemporary puppets shows several interesting things. First, puppets, which were originally a medium for religious ceremonies and disseminating religious teachings, which provide an overview or guidelines for how people behave, behave and live life in this world in accordance with traditional values that emphasize balance, have turned into a medium that describes how humans today, especially in the dynamics of society, behave, behave and behave. All of this is embodied in the concept of myth which is an element in wayang, where myth is interpreted as a story that provides certain guidelines and directions to a group of people [2]. The emergence of modern wayang is a reflection or criticism of the development of modern society today, especially in the cultural dimension, where humans can learn about the nature, form, development of something and how to build something. As Immanuel Kant said, the distinctive feature of culture lies in the ability of humans to teach themselves. Departing from this understanding, the development of culture must always be evaluated so that he realizes that something is often wrong and thus by falling and getting up he can progress [2]. Based on the explanation of puppet media, the puppet media used in this study is the development of traditional puppets whose shape can be modified according to needs. These puppets use cardboard or cardboard materials that are pasted or depicted from story characters. Images of characters in the story are pasted or drawn on cardboard or cardboard and then formed according to the image of the character in the

story and given a stalk or bamboo handle to move it. The puppet media used in this study is a human-shaped puppet media, and the basic symbol of the state as a story character. The advantages of puppet media in learning are: being able to improve listening skills, efficient in time, place, cost, and preparation, can develop students' imagination and activities in a happy atmosphere, the use of appropriate puppets directly hits the target and can develop an idea, media that is easy to make, cheap, and practical, unique and interesting shapes, and easy to use, hone teacher creativity.

The project-based learning model is one of the models that matches the characteristics of the independent learning curriculum. The learning model is chosen based on the components of the learning model, namely: syntax; social system; reaction principles; support system; and instructional and accompanying impacts (Wayan Rati et al., 2017). The application of learning models for students needs to be well planned and devalued. This is because so that the models that have been applied can be done even better in applying the same model to different materials at the next meeting (E. A. Verrysaputro & Fitriana, 2022). However, it is rare to evaluate the implementation of learning models. So, there is an absolute need for a written report containing an evaluation of the learning models applied in the process of teaching and learning activities. One of the learning models that is in accordance with the characteristics of the independent curriculum is the project-based learning model. The project-based learning model is a learning model that utilizes a project or activity carried out by students as a medium [3]. In accordance with the Ministry of Education and Culture's website (2013) which states that the activities of students who learn by applying project-based learning models will carry out material exploration activities, assessments, interpretation of material, data synthesis, and extracting useful information to produce various forms of learning outcomes. In other words, the application of this learning model can make students more active in carrying out activities in their lives related to the subject matter. This project-based learning model can be applied to all subjects including fine arts and cultural learning in illustration drawing materials. Through the application of this model, students have the freedom or independence to choose their own ways to solve problems, products produced, and how to get the products produced (Lestari, 2019). The steps that can be taken by students include formulating a question, making plans, compiling an activity schedule, supervising the project process, assessing the results of the product, and conducting an evaluation (Maryati, 2018) In applying project-based learning models, teachers need to plan well so that the puppet material that students are learning is easy to understand. In addition to planning, evaluation is also an important process in implementing project-based learning models. However, the process is often forgotten by teachers. In his writing, Nurgiyantoro (Kurniawati, 2018.) states that evaluation is an activity of collecting information in order to assess a tool, model, or human work whose results are used as parameters for further activities. The application of the PjBL model has been proven to be used to increase student creativity (Wulandari et al., 2019).

Theoretically, the benefits of using learning media in learning activities include: Learning media can increase students' motivation and interest in learning. (Sumantri, 2015: 303), Learning media can, capture an object or certain events, manipulate certain circumstances, events, or objects, present abstract subject matter to be concrete so that it is easily understood by students, and increase students' passion and motivation to learn (Wina Sanjaya, 2016: 170), and Learning media can make learning materials clearer in meaning so that they can be better understood by students, teaching methods will be more varied, not solely verbal communication. In order for a medium to be effectively used in learning, teachers should pay attention to the principles of using learning media (Nana Sudjana and Rivai, 2013: 4), namely accuracy with teaching objectives, support for the content of learning materials, meaning learning materials, ease of obtaining media, teacher skills in using media, available time to use media, according to the level of thinking of students. Puppet media is one of the world's cultural heritages from Indonesia which was recognized by UNESCO in 2008. Ruli Nasrullah (2014: 21) says that puppets are the original Indonesian educational media. In ancient times, the function of wayang was as a means of proselytizing and as an educational tool (Alit Widiastuti, 1985: 7). Wayang is often defined as shadows or vagueness that move according to the play that is brought to life by a puppeteer (Sri Mulyono, 1979: 3). Wayang is sometimes defined as an imitation of people, animate objects, and other objects made of carved animal skin, wood, paper, and grass used to portray characters in traditional drama performances played by puppeteers. According to its type, wayang can be classified into seven groups (S. Haryanto, 1988: 4), namely: wayang beber, wayang purwa, wayang madya, 4) wayang gedog,

wayang menak, wayang babad, modern wayang, and wayang topeng. Based on the explanation of the puppet media above, the puppet media used in this study is the development of modern puppets whose shape can be modified according to needs. This puppet uses cardboard or cardboard material that is plastered or drawn with story characters. Images of characters in the story are pasted or drawn on cardboard or cardboard and then formed according to the image of the character in the story and given a bamboo stalk or handle to move it. The puppet media used in this study is a human-shaped puppet media, and the basic symbol of the state as a story character. The advantages of puppet media in learning are: being able to improve listening skills, efficient in time, place, cost, and preparation, can develop students' imagination and activities in a happy atmosphere, the use of appropriate puppets directly hits the target and can develop an idea, media that is easy to make, cheap, and practical, unique and interesting shapes, and easy to use, hone teacher creativity.

2. Proposed Method

According to Sugiyono (2013: 2) that the research method is basically a scientific way to get data with specific purposes and uses. Based on this, there are four keywords that need to be considered, namely scientific methods, data, goals and uses. According to Darmadi (2013: 153) explains that the research method is a scientific way to get data with specific purposes. The scientific method means that research activities are based on scientific characteristics, namely rational, empirical and systematic. Based on the explanation above, it can be concluded that the research method is a scientific way to obtain data with a specific purpose. This form of research is a class action research subject conducted in class XI SMA Negeri 46 Jakarta, Classroom Action Research is an observation of learning activities in the form of an action, which is deliberately raised and occurs in a class together (Arikunto Suharsimi, et al, 2014: 3).

Descriptive qualitative methods are used for guidelines in conducting research. The data in this study were collected by researchers by means of interviews, observation and documentation. The nature of Classroom Action Research is Participatory Collaborative which means that researchers work with peers to assist in observing and collecting data in this study.

2.1. Problem Formulation

Departing from the description above, problems related to cultural arts learning, especially in project-based learning of fine arts by using modern puppets as a learning tool in illustrative drawing material for students in high school need to be formulated in the form of questions as follows.

1. What is designed in fine arts learning at school in modern puppet shows at school?
2. How is the application of project-based fine arts in building student characteristics in high school?

2.2. Research subject

In this study, the research subjects were students of class XI-7 of SMA Negeri 46 Jakarta, totaling 36 students, consisting of 20 girls and 16 boys. To smoothly conduct research, procedures or steps are needed that are in accordance with the problem under study. By taking 10 students as research subjects. Namely 5 male students and 5 female students. The reason for taking this research subject is based on the results of preliminary observations in learning Fine Arts in this class students still have difficulty in memorizing names and briefly telling the role of characters in telling folk stories in Indonesia in Fine Arts lessons.

1. The school's openness to receiving additional suggestions.
2. The learning provided is still conventional and teacher centered.
3. Grade XI-7 students need to be trained to be more active and critical in the Fine Arts learning process to support the implementation of character education at school.

2.3. Research Procedure

According to Arikunto, et al (2009: 74) the steps for implementing PTK are:

- 1) Planning
- 2) Implementation
- 3) Observation
- 4) Reflection at the end of each cycle.

The activities carried out in each cycle are as follows:

2.3.1. Planning Stage

Analyzing the syllabus, determining themes and subthemes, basic competencies. Indicators, theme networks and basic competency mapping of learning to be carried out, designing learning strategies, namely making lesson plans, preparing learning media that are in accordance with the material to be delivered..., prepare the necessary equipment in the implementation of thematic learning using puppet media, and make a modified observation sheet (IPKG 1) to see the planning of learning implementation, Observation sheet (IPKG II) modified Figures, developing visual video effects behind the scenes, using digital music with modern technology along with sound effects and lighting with a variety of simple lighting media, to see the implementation of learning, and student question sheets in the form of written tests with a description test form.

2.3.2. Implementation Stage

The activities carried out in this stage are implementing the planned scenario according to what has been prepared on the lesson plan both in the first cycle and the next cycle. researchers will carry out learning activities based on the Learning Implementation Plan (RPP) that has been prepared on Fine Arts learning to improve the learning outcomes of students in class XI-7 as for what must be done in cycle I are: (a) conditioning the class, (b) taking attendance, (c) motivating students and providing apperception in the form of questions and answers, (d) conveying learning objectives in accordance with the lesson plan, (e) delivering material using puppet media, (f) giving assignments and guiding students, (g) summarizing the material and carrying out evaluations in the form of tests, and giving awards to the best students.

2.3.3. Observation.

At this stage the things that were observed were as follows: a. Teacher activities when using puppet media in learning fine arts in class XI. b. Student learning activities during the learning process by using puppet media in learning social studies in class XI-7 students.

2.3.4. Reflection

At this stage the researcher conducts evaluation activities on learning by using puppet media in learning fine arts in class XI-7 students, including analysis of the results of researcher observations on aspects that have been observed whether they are in accordance with the achievement indicators or not, analyzing student test results in Cycle I, and evaluating actions. Thus, researchers can analyze the strengths and weaknesses in Cycle I. The results obtained and the problems that arose in the implementation of the action were used as a basis for re-planning the next cycle. If the research success indicators in Cycle I have not been achieved, then the researcher will continue to Cycle II which includes re-planning, re-action, and re-observation activities so that the problem can be resolved.

2.4. Data and Data Collection Techniques

2.4.1. Research Data

The data in this study are tailored to the needs in answering the problem formulation, namely:

1. Data on teacher and student activities when using puppet media. The way to get data on teacher and student activities is by observing teacher and student activities using observation sheets.

2. Improvement of student learning outcomes. Data on the improvement of student learning outcomes in Fine Arts learning is obtained from test scores on the material of telling the characters and characters in folklore.

3. Data on student responses in learning Fine Arts using puppet media is obtained from a questionnaire sheet given to students at the end of the research method.

2.4.2. Data Collection Technique

Data collection is a systematic and standardized procedure for obtaining the data needed in research (Nazir, 2003: 174). Based on the objectives and types of research formulated, the data collection techniques used in this study are tests, observations and questionnaires.

2.4.3. Research Instruments

1. Teacher and student activity observation sheets were used to determine the activities of teachers and students when participating in Fine Arts learning activities in class XI-7 by using puppet media.

2. Test sheet using questions given by the teacher to students at the end of the learning cycle which is used to determine student learning outcomes on the material that has been delivered in Fine Arts learning.
3. Student response sheet to Fine Arts learning applied to class XI-7 students in the form of a questionnaire and filled in by students after all learning activities using puppet media ended.
4. The interview sheet is used to find out the obstacles that exist and provide solutions in order to make improvements.

Table 1. Assessment Instrument

No.	Aspect observed	Percentage (0%) in Cycle I	Percentage (0%) in Cycle II	Percentage (0%) in Cycle III
1.	Media size Large Enough Less			
2.	Media display Clear Clear enough			
3.	Media attractiveness Interesting Attractive enough Less Attractive			
4.	Readability of media Readable Readability enough Less Legible			
5.	Clarity of message content Clear Clear Enough			

2.4.3. Data Analysis Technique

Data analysis is a process directed at answering the formulation of research problems. The data obtained in this study will be processed and analyzed based on its type as follows:

1. To analyze the data from the observation of student and teacher activities in learning with puppet media, researchers used the formula:

$$P = F \times 100\% \div N$$

Description:

P = Percentage of student or teacher activity

F = The number of teacher or student activities

N = Total number of activities.

After that it will be stated with qualitative criteria, namely:

80% - 100% = Very Good (A)

66% - 79% = Good (B)

56% - 65% = Fair (C)

40% - 55% = Deficient (D)

0% - 39% = Very less (E)

Indarti (2008: 76)

2. To analyze the data from the learning test results, researchers analyzed the data quantitatively using the formula:

Class average

$$M = \frac{\sum x}{N}$$

Description:

M = Class average

$\sum x$ = Total score obtained from the sum of the scores of each student

N = Number of all students According to Djamarah (2005: 302)

3. Student response questionnaire data Student response questionnaire data on the use of puppet media in social studies learning was analyzed using the formula:

$$P = \frac{x}{n} \times 100\%$$

Where:

P = Percentage of student response = Number of voters the same answer

B = The number of students (respondents) According to Trianto (2009: 243) After that it will be stated with qualitative criteria, namely the criteria:

80% - 100% = Very Good (A)

66% - 79% = Good (B)

56% - 65% = Fair (C)

40% - 55% = Less (D)

0% - 39% = Very less (E)

According to Arikunto (2009: 245)

4. Results and Discussion

This study proves that the use of modern puppet media in Project-Based Learning (PjBL) art education can improve the quality of the learning process and outcomes. Teachers' activities become more active and structured, with well-planned lessons through customized lesson plans. Teachers also become more creative in facilitating project-based learning, while students show increased enthusiasm, active participation, and focus in the creation and performance of modern puppets. Student learning outcomes have improved significantly, as evidenced by the achievement of learning completeness, which initially stood at 59.56% (pre-intervention) and increased to 83.56% in Cycle III, exceeding the established minimum competency standard (KKM).

Modern wayang puppetry not only enhances students' creativity through the exploration of ideas and personal expression in creating wayang characters but also reinforces local cultural values. Students not only become familiar with traditional art but also internalize character values through the characters in the stories. Learning with this medium enables teachers to move beyond relying solely on lectures, instead engaging students emotionally and cognitively, making the material easier to understand and remember, particularly when memorizing historical figures.

Additionally, this study shows that modern wayang media supports character education by incorporating moral values, heroism, and national spirit. The PjBL approach in the Merdeka curriculum is also well-facilitated, where students learn independently and collaboratively with the freedom to choose themes and roles in art projects. Wayang media made from simple materials such as cardboard/cardboard boxes proved to be efficient, attractive, and easy to modify, thereby increasing student engagement. Student responses to this learning method were very positive, with the majority rating wayang media as a fun, motivating, and easy-to-understand tool. Thus, this study confirms that modern wayang media is effective in enhancing learning activities, learning outcomes, and character development among students.

5. Conclusions

Conclusion Based on the results of the discussion that has been stated, it can be concluded that (1) Teacher activity during the learning process using puppet media increases can improve learning outcomes. (2) Student activity during the learning process using puppet media increased, this can be seen in the number of students who pay attention to the teacher's explanation, as well as answering questions asked by the teacher who answered enthusiastically. (3) Learning outcomes after learning by using puppet media increased, this was indicated by the increasing number of students who reached the predetermined minimum completeness criteria. (4) The students' response to the use of puppet media is very good, this can be seen from the students' answers through questions about puppet media.

Author Contributions: A short paragraph specifying their individual contributions must be provided for research articles with several authors (**mandatory for more than 1 author**). The following statements should be used “Conceptualization: X.X. and Y.Y.; Methodology: X.X.; Software: X.X.; Validation: X.X., Y.Y. and Z.Z.; Formal analysis: X.X.; Investigation: X.X.; Resources: X.X.; Data curation: X.X.; Writing—original draft preparation: X.X.; Writing—review and editing: X.X.; Visualization: X.X.; Supervision: X.X.; Project administration: X.X.; Funding acquisition: Y.Y.”

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Data Availability Statement: We encourage all authors of articles published in FAITH journals to share their research data. This section provides details regarding where data supporting reported results can be found, including links to publicly archived datasets analyzed or generated during the study. Where no new data were created or data unavailable due to privacy or ethical restrictions, a statement is still required.

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