Student Creativity in Poster Making Using Project Based Learning on HIV and AIDS Concepts

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Abstract
This research analyzes students' creativity in making posters using the Project-Based Learning (PjBL) Model. This research uses a case study method. A case study is an empirical investigation that investigates a phenomenon in the context of real life. There are four aspects of creativity. First, creativity is defined as a force within the individual. Second, creativity is managing information and using skills and imagination to do or create something. Third, creativity produces something new or a work of art. Fourth, creativity is a product that is produced, for example, ideas, written works, or products. In this case, creativity shows students' ability to develop ideas about HIV and AIDS in poster form and complete posters on time. Poster-making is an assignment that will foster student creativity. In making posters, students will determine essential things about the material included in the poster. Therefore, using the Project-Based Learning (PjBL) model in the assignment to make posters in class X Science at one of the senior high schools in Serang City can initiate student creativity.

Introduction

In the contemporary education era, increasing student creativity is the primary basis for forming a generation that can innovate and adapt. Education is no longer limited to merely transferring information but becomes a stage for exploration, discovery, and self-expression (Abdurahman et al., 2022). In this framework, student creativity is considered an essential element for facing the complexity of global challenges. Education focusing on developing creativity requires students to develop intellectual skills and guides them in developing creative thinking patterns, stimulating imagination, and strengthening their ability to adapt to change (Umar, 2019). Therefore, educators need to be able to identify, implement, and facilitate learning approaches that can stimulate student creativity (Sari & Angreni, 2018).

The transformation of learning from traditional patterns to innovative models reflects fundamental changes in educational approaches. Amid technological advances and easy access to information, curriculum development is crucial to ensure the relevance of learning to the demands of the times (Zulhandayani, 2023). The Project-Based Learning (PjBL) model emerged as an option that provides a dynamic solution to these challenges (Hamidah & Citra, 2021). Project-based learning (PjBL) involves students working on hands-on projects to build knowledge, address real-world issues, and produce tangible outcomes. It fosters collaboration, critical thinking, and interdisciplinary knowledge integration and emphasizes active learning, student autonomy, and the development of academic and practical skills

(Guo et al., 2020). As an approach that emphasizes active learning, PjBL creates an environment where students not only gain conceptual knowledge but also apply it in real-world situations so that it is hoped that it can prepare them to face the complexity of challenges in the future (Adiilah & Haryanti, 2023). Therefore, PjBL is an important educational revolution milestone (Murniarti, 2021).

The Project-Based Learning (PjBL) model adopts learning ideas from projects, providing a practical dimension to the educational process. By emphasizing learning through real-world projects, PjBL provides students with opportunities to explore curriculum content in a relevant and meaningful context (Adiilah & Haryanti, 2023). The close relationship between PjBL and the development of students' creative skills becomes apparent because students are not only asked to understand concepts but also to apply them creatively in completing challenging projects (Setiawan et al., 2021). This approach aims to convey knowledge and involves students in creative thinking, problem-solving, and collaboration (Farihatun, 2019). Furthermore, implementing PjBL is a learning method and a strategy to increase student motivation and participation. Using real-world projects, PjBL creates engaging contexts, sparks curiosity, and gives meaning to learning, creating an environment where students are naturally engaged and motivated to achieve their learning goals (Nababan et al., 2023). As a holistic approach, PjBL can change how students acquire knowledge and build the foundation for thinking creatively and adapting to the future (Azzahra et al., 2023).

This research aims to identify how PjBL can be the primary driver in the learning process that stimulates students' imagination and innovation. In addition, this research has an important contribution to developing creative learning and education models. By understanding more deeply how PjBL can influence student creativity, this research can provide valuable insights for improving learning approaches that encourage creativity. This research framework will provide a comprehensive theoretical basis, providing an understanding of the complexity of the interaction between PjBL and the development of student creativity. In doing so, this research will contribute to the educational literature and help form practical guidelines for educators seeking to enhance student creativity through innovative learning models.

Methods

This research is a case study. Poster-making in this study is an assignment that will foster student creativity. In making posters, students will determine important things about the material included in the poster. The expected target in making this poster is that students can explore creative ideas so that the poster looks attractive. This poster-making assignment involved X grade students in one of the high schools in Serang City, as many as five classes; XA, XB, XC, XD, and XE, totaling 199 students. Students' posters are assessed using a rubric with assessment criteria including content/text, design, image, and message delivery. The assessment criteria and indicators of poster-making assessment are presented in Table 1.

Table 1. Assessment of Practicality

Assessment Criteria	Indicator	Score
Text content	Text content is short, information-dense, and clearly legible (all three criteria met)	4
	Two of the good content/text criteria are met, while one of the criteria is not met	3
	Only one of the good content/text criteria is met, while two criteria are not met	2
	The text is too long, poor in information, not clearly readable (all criteria not met)	1
Design	Attractive colors, proportional size of the constituent elements, the message to be conveyed becomes the center of attention (all three criteria are met)	4
	Two of the good design criteria are met, while one of the criteria is not met	3
	Only one of the good design criteria is met, while two criteria are not met	2
	Color, size of constituent elements, center of attention do not show good design (all criteria are not met)	1
Image	Images are attractive, meaningful as a messenger and original (all three criteria met)	4
	Two of the good drawing criteria are met, while one of the criteria is not met	3
	Only one of the good drawing criteria is met, while two criteria are not met	2
	Images are not attractive, not meaningful as messengers, and not original (all good design criteria are not met)	1
Message delivery	The message is very easy for the reader to grasp	4
	The message is easy enough for the reader to grasp	3
	The message is difficult for the reader to grasp	2
	The message cannot be captured by the reader	1

Results and Discussion

a. Project-Based Learning (PjBL) Learning Model

Project-based learning is a learning method where students actively create projects. This learning model focuses on developing problem-solving skills through project work, allowing students to choose topics, research, and complete projects (Sari & Angreni, 2018). This learning model has six components: determining basic questions, designing the project, preparing a schedule, monitoring project progress, presenting results, and evaluating (Wulandari et al., 2019). In determining the basic questions, students are given stimulation so that they can come up with questions when learning about HIV/AIDS. Then, when designing the project, students were directed to work on posters manually with each student's creativity. Then, when working on the poster, there is a schedule for making posters for one day and working at home. The teacher directs more clearly in making posters. Furthermore, when presenting posters, students are asked to present with their group in front of the class. After presenting in front of the class, the teacher evaluates the results of the students' posters.

Project-based learning (PjBL) is a learning approach that summarizes various learning concepts. This approach is supported by comprehensive theories, engaging students in cooperative and ongoing inquiry activities. PjBL refers to a constructivist philosophy, where knowledge is considered the result of students' cognitive construction through activities involving scientific skills and attitudes so that students can construct their meaningful knowledge through direct experience (Wulandari et al., 2019).

The project-based learning method (PjBL) introduces innovation in teaching approaches by emphasizing the role of the teacher as a facilitator. Teachers provide facilities when students ask about theory and encourage students to actively learn (Trianto, 2014). Students must be independent in managing learning by dividing the workload and integrating various assignments made by each student (Santoso, 2017).

The project-based learning model uses projects as a medium, where the project tasks can increase self-confidence and develop creative thinking skills. This learning model also involves collaboration, communication, problem-solving, and independent learning (Astuti, 2015; Sumarni et al., 2016). In addition, the Project-based learning model also increases students' positive activity and improves cognitive learning outcomes by exposing students to new information (Setiawan et al., 2023).
Implementing learning using the PjBL model may only be effective if students have the drive to achieve (Sani, 2014). Achievement motivation reflects the desire to achieve success, which is reflected in persistence and effort when facing obstacles. In other words, high achievement motivation among students can be seen from the students' willingness to try harder for success in the learning process (Fitri et al., 2018).

b. Creativity as an element of 21st-century skills

Creativity is an essential aspect of human development, including in educational institutions. Educational institutions are also the right place to nurture creative talents and students' ability to think creatively. Creativity is also a process of providing various ideas in dealing with a problem; apart from that, it is also a process of playing with ideas, which is fun and a challenge for creative students. Creativity is a thinking process where students try to obtain new answers and methods or ways of solving problems. Every individual has creativity, so it needs to be increased by providing opportunities to be involved in activities that can increase creativity (Lestari & Zakiah, 2019).
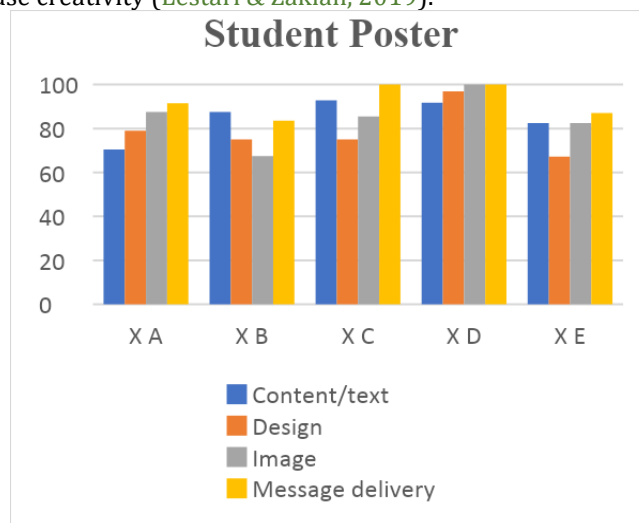

Figure 1. Student Poster Score

Making students creative is the goal of teaching. Creativity is also part of positive character or values, which are parameters of personality and values. Therefore. Growth is the content of education that needs to be realized from learning. Apart from that, creative children also usually have a strong self-imagination. The development of creativity in the world of education (creative learning, creative schools, creative teachers, creative school leaders, and creative students, as well as an environment that is conducive to the growth of creativity) is essential considering that our world of education is still faced with fundamental problems, for example, equal distribution of the quality of learning outcomes, quality of learning, access to quality education for all citizens of the nation, teacher competency, and educational resources and geographical conditions (Fachruddin, 2019).

c. Project Based Learning Model Through Student Creativity

Based on research results in each class, the average aspects of the psychomotor assessment are different. There are four aspects of assessment, including content/text, design, image, and message delivery aspects, because the creativity of each student is different. As in the poster image below, the elements on each poster are different even though they have the same theme. Then, from the scores obtained in the table above, students are good at making posters made by students, and all students can create posters according to the aspects that have been determined. Even though there are deficiencies in several aspects of psychomotor assessment, students are also enthusiastic and creative in choosing themes and poster designs to be made in groups.

There are differences between the five classes. Meanwhile, in the XB class, the content/text aspect had an average of 3.5, the design aspect had an average of 3, the image aspect had an average of 2.7, and the message delivery aspect had an average of 3.34.
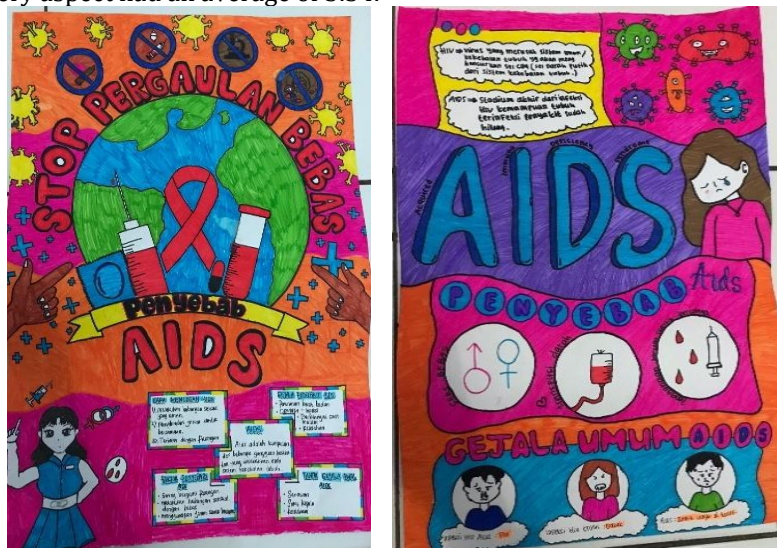

Figure 2. Sample of Students' Poster

Then, in class /text with an average of 3.3, design aspect with an average of 2.69, image aspect with an average of 3.3, and message delivery aspect with an average of 3.48. Based on the assessment results for each class, there are visible differences in each aspect. Apart from that, psychomotor is also a domain that focuses on physical abilities and muscle strength related to physical activities. The psychomotor domain also relates to the skills and ability to act obtained after students learn. Then, in psychomotor learning, further results are obtained from students' cognitive and affective learning outcomes (Sitepu, 2022).

Posters made by students were assessed using the psychomotor assessment rubric contained in Table 1, and different average scores were obtained for each class. The average poster score in each class was 80, some even more than 90. The highest average result in making posters reached 91, showing students' ability to develop ideas and complete posters on time. Poster-making is done in groups, allowing students to interact, ask questions, and exchange ideas, which can facilitate increasing students' ability to think creatively (Julfitri et al., 2020).

Based on the student creativity category, students who get a score of 80 are included in the good category, while >80 are included in the very good category. Student learning achievements, including cognitive and psychomotor abilities, can be improved through PjBL. PjBL makes it easier for students to understand and solve daily problems, create projects, and increase student activity. This student activity will have an impact on increased achievement. Understanding concepts and thinking creatively will give rise to critical thinking and produce products to solve various existing problems (Cofré et al., 2019).

Juandi (2017) believes implementing the PjBL model positively impacts student creativity. In the learning context, using the PjBL model facilitates students' understanding of material and concepts, providing opportunities to express ideas and thoughts in building knowledge. In terms of creativity during the learning process, students show high enthusiasm in completing previously planned projects. Students also actively collaborate with their groups, conveying ideas to each other to improve the quality of the projects they are working on.

Conclusions and Recommendations

Using the Project-Based Learning (PjBL) model in the assignment to make posters in class X Science at one of the senior high schools in Serang City can initiate student creativity. Student creativity is assessed using a psychomotor assessment; based on the assessment results for each class, there are visible differences in each aspect. The average poster score obtained from each class is 80, some even more than 90. The average score shows students can develop ideas and concepts and complete posters on time.

Increasing student creativity can be measured using PjBL models such as poster making. Student creativity really needs to be improved so that students always have ideas for innovation. Therefore, this research can be used as a basis for further research to improve student creativity using appropriate learning models.

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