The Use of Website-Based PBL Model to Improve the Interest and Motivation in Learning Class X Students

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Abstract: Understanding the material to be delivered and having the right teaching strategy will create a good teaching and learning process by using an interesting learning model so as to increase students' interest in learning in taking lessons and completing assignments given by the teacher (Gulo, 2022). Based on this statement, the use of E-LKPD, flipbook, *liveworksheet, wordwall*, Canva aims to increase students' interest and motivation in learning. The data collection technique aims to get complete, concrete and real data for the intended class, then I found some unique things that can be further investigated related to interest and motivation to learn. The technique used to obtain the data is to use a test instrument in the form of a post test on Biology material. This data analysis technique uses simple quantitative research with the help of *Microsoft Excel*. This data processing is done by calculating the average of the overall post test scores. The indicator of success in this study is if the activities of students in each cycle experience an increase and learning outcomes reach the Minimum Criteria of Mastery Learning(KKM), which is ≥ 77 (Arisandi. 2022). in cycle 1 there were only 9 students whose posttest scores showed a completeness score, which exceeded the Minimum Criteria of Mastery Learning(KKM) score. In cycle II there were 14 students whose grades exceeded the Minimum Criteria of Mastery Learning(KKM) score, and in cycle III there were 19 students whose grades exceeded the Minimum Criteria of Mastery Learning(KKM) score.

Keywords: Deskriptif kuantitatif, questionnaire, flipbook, liveworksheet, wordwall.

INTRODUCTION

In the learning process, educators play a critical role in creating an environment that fosters student development and potential. This includes facilitating open dialogue and encouraging students to ask questions about their self-development (Schunk & Ertmer, 2019). To do this effectively, educators must also be willing to accommodate the diverse questions and curiosity of their students in a transparent, tolerant, and humble manner (Hoy & Davis, 2016).

Furthermore, it is essential for educators to employ strategies that can cultivate students' enthusiasm for learning. According to Dakhi et al. (2020), effective educators must have pedagogical approaches that can engage students in the learning process. Monotonous learning activities can hinder students' learning progress, making it essential for teachers to use interesting and varied learning models to keep students engaged (Gulo, 2022). For instance, project-based learning (PBL) has been found to be an effective strategy for promoting student engagement and motivation (Larmer & Mergendoller, 2016).

Overall, by creating an environment that fosters open dialogue and utilizing pedagogical approaches that promote student engagement, educators can enhance the learning process and help students achieve their full potential.

From the description of the problem, learning activities are designed using the PBL learning model and using website-based media to encourage and increase students' interest and learning motivation. The media developed and given to students include flipbooks, E-LKPD with liveworksheets, wordwalls, and google forms. Apart from that, interesting worksheets and handouts were also designed using the Canva application

and then packaged in electronic form. According to Rahayu et al (2021) a flipbook is a medium that resembles a book with each page accompanied by an animation or a moving process. Flipbooks can be equipped with text, animation, pictures, video, and sound, so that interactive learning can be created and motivate students in learning and more easily stimulate students' memory so that they can improve student learning outcomes. Other media in the form of wordwalls and liveworksheets can be used as one of the learning media used by teachers to support an interesting and innovative teaching and learning process. The liveworksheets application can display material in the form of videos, images, and other interesting symbols so that it can add to the appeal and enthusiasm. This application can be an interactive online exercise and this application can also correct automatically. Answer keys can be directly entered into the application so that when students finish working on the worksheet, students can immediately see the grades obtained (Arisansi, 2022). According to Andriyani et al., (2020) in Arisandi (2022) the advantage of using the liveworksheets application is that it is easy to use, facilitates access between students and teachers during learning, and its attractive visual appearance will provide enthusiasm and motivation for students in learning.

Through a series of web-based learning media designs compiled in this classroom action research, it is hoped that the interest and learning motivation of students in class X.E Senior High School 3 Jember can be further increased, especially in the subject of Biology.

METHOD

This data collection technique aims to get complete, concrete, and real data for the intended class, then I find some unique things that can be further investigated related to interest and motivation to learn. The technique used to obtain student data is to use a test instrument in the form of a post test on Biology material. This data analysis technique uses simple quantitative research with the help of Microsoft Excel. This data processing is done by calculating the average of the overall post test scores. The indicator of success in this study is if the activities of students in each cycle experience an increase and learning outcomes reach the Minimum Criteria of Mastery Learning (KKM), which is ≥ 77 (Arisandi. 2022).

RESULTS AND DISCUSSION

The paragraph highlights the implementation of research conducted at Senior High School of Muhammadiyah 3 Jember, which aimed to investigate the effectiveness of liveworksheets as a learning media for biology. The research was conducted over a period of three months, starting from November 2022 to January 2023, and covered all necessary stages, including preparation, implementation, and report writing. The initial phase involved the administration of questionnaires to determine the baseline conditions of student learning and achievement targets in each cycle before the application of liveworksheets in the learning process (Andrian, 2020). The results of the questionnaires and observations revealed that students in class X.E had low motivation and interest in learning biology, resulting in less enthusiasm, passivity, and distraction during learning activities. This is consistent with the findings of Hartinah (2018), which indicated low motivation to learn, leading to disengagement during learning activities.

The results of the research highlight the challenges faced by educators in engaging students in the learning process. According to Febrianti et al. (2021), indicators of interest in learning include active participation, great attention and concentration, a sense of comfort in the learning process, and a willingness to learn, all of which were lacking in the students at Senior High School of Muhammadiyah 3 Jember. The use of liveworksheets as a learning media has the potential to address these challenges by providing an interactive and engaging learning experience for students. The findings of the research have implications for educators, as they suggest that innovative teaching methods, such as liveworksheets, can help to improve student motivation and interest in learning, which can ultimately lead to improved academic achievement. However, it is important for educators to carefully consider the needs and interests of their students when selecting and implementing learning media to ensure that they are effective in promoting student engagement and achievement.Based on this, the use of E-LKPD, flipbook, liveworksheet, wordwall, Canva aims to increase student interest and motivation in learning, this can be seen in table 1, each cycle shows an increase.

Table 1 Increasing Student Interest and Motivation Based on Post-Test Scores

	Cycle 1	Cycle 2	Cycle 3
Average Score	56,47059	56,02941	63,23529
Students who are absent	5	6	5
Students who exceed Minimum Criteria of Mastery Learning (KKM)	9	14	19

The table 1 provides information on the average score, absenteeism, and the number of students who exceeded the minimum criteria of mastery learning (KKM) in three different cycles. Cycle 1 represents the initial stage of the research, while Cycle 2 and Cycle 3 represent subsequent stages of implementation.

The "Average Score" column displays the mean score obtained by students in each cycle. In Cycle 1, the average score was 56.47, while in Cycle 2, it was slightly lower at 56.03. However, there was a significant improvement in Cycle 3, with an average score of 63.23. This suggests that the liveworksheets learning media had a positive impact on student performance over time.

The "Students who are absent" column displays the number of students who were absent during each cycle. In Cycle 1, five students were absent, while in Cycle 2 and 3, six and five students were absent, respectively. This information is important as it provides insight into the level of student engagement during the implementation of the liveworksheets learning media.

The "Students who exceed Minimum Criteria of Mastery Learning (KKM)" column displays the number of students who achieved scores higher than the minimum criteria of mastery learning (KKM) in each cycle. In Cycle 1, only nine students exceeded the KKM, while in Cycle 2 and 3, the number increased to 14 and 19, respectively. This indicates that the liveworksheets learning media was effective in improving student performance and helping more students achieve mastery of the subject.

Overall, the table provides valuable information on the effectiveness of liveworksheets learning media in improving student performance and engagement over time, as indicated by the increasing number of students who exceeded the KKM and the higher average scores in later cycles.

The text is discussing the use of various media in improving student learning outcomes. The data table presented in the text indicates that using certain media such as E-LKPD, flipbook, liveworksheet, wordwall, PPT, and Canva can improve student learning outcomes. The statement is supported by several research studies conducted by different researchers.

Wibowo's research in 2021, quoted from Wulandari's study in 2022, shows that interactive PowerPoint media has been proven to improve student learning outcomes and is more effective in doing so. Similarly, Rahmawati et al.'s research in 2020, also quoted from Wulandari's study in 2022, found that interactive PowerPoint media can increase student scores in general, helping them achieve desired targets. Hikmah's research in 2020, quoted from Wulandari's study in 2022, indicates that PowerPoint learning media can increase student interest and motivation in learning, which can improve their learning outcomes. It has also been found effective in distance learning.

Moreover, the text discusses the research by Nianti et al. in 2022, quoted from Andrian's study in 2022, which suggests that E-LKPD using the liveworksheets platform is a good learning tool because it is packaged more attractively with videos, animations, and pictures. This learning tool can be used independently by students, and it has been found to improve students' understanding of biology subjects, resulting in an increase in student learning outcomes from cycle I to cycle III.

The text goes on to describe the improvement in learning outcomes over three cycles of teaching meetings. In cycle I, only nine students had a completeness score exceeding the KKM in the first meeting, but the average post-test score in class was only 56%. In cycle II, the number of students whose posttest scores exceeded the KKM increased to 14, but the average posttest score in class remained the same. In cycle III, the number of students whose posttest scores exceeded the KKM further increased to 19, and the average posttest score in class also increased to 63%. However, there were still some students who were absent due to illness or permission. The description mentions the implementation of the liveworksheets learning media in a biology class at a senior high school in Jember, Indonesia. The research found that students had low motivation and interest in learning biology, which led to passive and disengaged behavior during class. The implementation of the liveworksheets learning media was found to be effective in increasing student engagement and performance over time, as demonstrated by higher average scores and an increasing number of students exceeding the minimum criteria of mastery learning.

This finding is in line with previous research that has found that the use of technology-based learning tools can have a positive impact on student engagement and performance. For example, a study by Sholihah et al. (2020) found that the use of virtual labs in science classes increased student engagement and motivation, as well as improved their understanding of scientific concepts. Similarly, a study by Azwar et al. (2021) found that the use of multimedia tools in mathematics classes led to increased student engagement and improved learning outcomes.

Furthermore, the research highlights the importance of addressing student motivation and interest in the learning process. Research by Echazarreta et al. (2020) found that motivation is a key factor in determining academic success, as students who are motivated are more likely to be engaged in the learning process and achieve better academic outcomes.

Overall, the findings of this research suggest that the use of live worksheets learning media can be an effective strategy for improving student engagement and performance in biology classes. By creating a more interactive and engaging learning environment, students are more likely to be motivated and interested in the subject, leading to better academic outcomes.

CONCLUSION

The passage describes the results of a simple research study that aimed to investigate the effect of using various innovations on student learning outcomes in biology. The study found that there was an increase in learning outcomes in each cycle, with more students achieving scores that exceeded the Minimum Criteria of Mastery Learning (KKM) score in later cycles. However, the study also found that the innovations used by the model teachers were not enough to increase student interest in learning biology.

The passage suggests that students' interest in learning biology can be influenced by factors beyond the innovations used by teachers. For example, a safe and comfortable learning environment and ecosystems that support biology learning can also have an impact on student interest. The teacher needs to identify the reasons behind students' lack of interest in order to address the issue effectively.

Despite this limitation, the study concludes that the use or development of web-based tools can increase students' interest and learning motivation in biology. This highlights the potential of technology to enhance the learning experience for students and suggests that further research and development in this area could lead to significant improvements in learning outcomes.

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