THE USE OF PROBLEM-BASED LEARNING TO ENHANCE STUDENT PARTICIPATION

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ABSTRACT

This research aims to investigate the effect of implementing the Problem-Based Learning (PBL) method to enhance student participation in the learning process. The research utilized a classroom action research approach conducted in two cycles. Student participation was measured through the use of questionnaires and portfolio task evaluations. The data obtained from the questionnaires and portfolio assessments were quantitatively analyzed using Microsoft Excel with percentage calculations. The analysis results were described through descriptive explanations. The research involved a class consisting of 32 students from SMA Negeri 4 Malang. The results showed that the implementation of PBL successfully increased student participation. The average percentage of student participation based on the questionnaire reached 83% in cycle I and further increased to 93% in cycle II. Meanwhile, the average percentage of portfolio task completion as one aspect of participation reached 86% in cycle I and increased to 91% in cycle II. Overall, this research provides a preliminary understanding of the positive potential of PBL in enhancing student participation. This classroom action research provides practical benefits for teachers in designing and implementing learning activities that encourage active student participation. It is expected that this research can serve as a foundation for further in-depth and extensive studies, as well as promote the use of PBL in broader learning contexts.

Keywords: student participation, problem-based learning, enhance students participation

Education is a highly important process in human life. It not only provides knowledge and skills but also shapes the character and personality of individuals (Eku, 2019; Hendriana, 2014). In the educational process, student participation is crucial (Hasyim et al., 2023). Student participation can be defined as the ability of students to actively engage in the teaching and learning process (Widiyaningrum et al., 2016). High student participation can improve the quality of learning, provide greater motivation for students, and help students achieve better educational outcomes (Akpur, 2021; Librianty & Syarif, 2014; Michael C. Kane, 2015; Starmer et al., 2015). According to Basri et al. (2022), student participation in the classroom can be assessed based on aspects such as their participation in receiving lessons, participation in group work, participation in group presentation activities, and participation in completing assignments.

According to research conducted by Ahlström (2010) and Zheng & Warschauer (2015), student participation is highly important in achieving good educational outcomes. Zheng and Warschauer's research showed that students who actively engage in online learning have higher attendance rates, better grades, and higher graduation rates compared to students who are not actively involved. Meanwhile. Ahlström's research found a correlation between student participation, grades, and school bullying. The research results indicated that actively participating students have higher academic success and also experience lower levels of bullying.

However, there are several issues related to student participation in the teaching and learning process. One common problem is the lack of motivation among students to engage in the learning process (Afrianty & Kusdiyati, 2015; Christanty & Cendana, 2021; Nurgiansah et al., 2021; Tanner, 2013). According to research conducted by Furrer, C. J., Skinner, E. A., & Pitzer (2014), lack of motivation can lead to low student participation in the learning process. Therefore, it is important for teachers and schools to create an environment that enhances student motivation in the teaching and learning process.

Based on observations conducted at SMA Negeri 4 Malang, several issues were found regarding student participation in English language subjects. One observed problem is the low participation of students in class discussions and task completion. Students tend to be reluctant to give opinions or ask questions, even when prompted by the teacher to speak, only a few students actively respond. This may be due to students' lack of confidence in using English. Additionally, some students lack focus and interest in the English learning process, resulting in low student participation. Addressing these issues is crucial because low student participation can have a negative impact on student learning outcomes and reduce the quality of classroom instruction. Therefore, there is a need for actions to enhance student participation in English language learning, including in class discussions and task completion, at SMA Negeri 4 Malang.

One solution to improve student participation in English language learning is by implementing the problem-based learning method (Dian et al., 2015; Restisiwi, K., & Istikharoh, 2020). This method involves students in problem-solving or real-life situations related to the subject matter being studied (Fioravanti et al., 2018: Karan & Brown, 2022). In this method, students actively engage in the teaching and learning process and develop critical thinking and creativity in problemsolving (Anazifa, R. D., & Djukri, 2017; Derevenskaia, 2014). As a result, students feel more engaged in the learning process and are more motivated to participate in discussions and group activities (Fukuzawa et al., 2017; Harun et al., 2012).

Problem-based learning (PBL) emphasizes active learning experiences, where students learn concepts or theories through problem-solving or real-life situations they encounter (Chung, 2019; Hadi & Izzah, 2019). Essentially, PBL is a learner-centered approach to teaching and learning (Airlanda, 2021). The teacher acts as a facilitator, assisting

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students in understanding the subject matter by providing guidance and support (Munir, 2020). PBL has five implementation syntaxes, which include: (1) Student orientation to the problem, (2) Organizing students for learning, (3) Guiding individual and group investigations, (4) Developing and presenting work outcomes, and (5) Analyzing and evaluating the problemsolving process (Nurlaela, Luthfiyah, 2021). The syntaxes in PBL require students to share information, engage in discussions, and think critically in groups or individually (Cortázar et al., 2021; Fadilla et al., 2021). By carrying out these activities, students actively participate in the learning process.

In the application of PBL to enhance student participation, previous research has been conducted. Yasminah showed (2020)study that the implementation of problem-based learning models can improve student participation and learning achievement. These findings align with Inavati & Kristin (2018)research. which demonstrated that the implementation of problem-based learning models can participation enhance student and learning outcomes in elementary school. Additionally, Wiznia, D., Korom, R., Marzuk, P., Safdieh, J., & Grafstein (2012) found that the implementation of can PBL 2.0 enhance student participation in learning. This indicates that the problem-based learning method can be an effective solution to increase student participation in learning.

Previous studies that have been discussed only focused on primary schools and vocational schools, making research on the implementation of problem-based learning models to enhance student participation in English language learning in high schools an area that needs further investigation. Second, research on the application of problembased learning models to improve student participation in English language learning in the EFL context is still limited, so this research can provide an important contribution to the development of English language teaching methods in Indonesia. Thus, efforts to increase student participation in English language learning at the high school level can be done based on evidence.

The objective of this research is to enhance student participation in English language learning through the implementation of the problem-based learning model in SMA Negeri 4 Malang. This research is crucial because student participation in English language learning is one of the important factors in achieving effective learning outcomes. In English language learning, student participation can improve their speaking, listening, reading, and writing skills in English. Furthermore, the application of the problem-based learning model can increase student engagement in learning and enhance their creativity and critical thinking skills in problem-solving. Therefore, this research is expected to contribute to the development of more effective English language teaching improve and student methods participation in the classroom.

METHOD

This research used the classroom action research method with the Problem-Based Learning (PBL) approach, aiming to enhance student participation in the learning process within the classroom. This research method involved steps such as planning, implementation, reflection, and action. In the action phase, the researcher carried out corrective actions or adjustments based on the analysis and reflection conducted earlier. The 43 | >>

research was conducted in two cycles, where each cycle involved the same classroom action research process using PBL to observe the improvement or enhancement of student participation achieved.

In this research, 32 students were involved as research subjects. To measure student participation,

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assessments were conducted through questionnaires and portfolio evaluations. These assessment aspects were based on the student participation assessment by (Basri et al., 2022). However, the researcher simplified and adapted them for adjustment purposes, as shown in Table 1.

No	Aspect	Adaptation Points	
1	Questionnaire	Student participation in receiving lessons	
2	Portfolio	Student participation in their group	
		Student participation in group presentations	
		Student participation in completing tasks	

Table 1. The Assessment	t Aspects	of Student	Participation
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The success indicators of this research were determined based on the improvement of student participation percentage reaching 75% or more. The research instruments used included questionnaires and portfolio assessments. The questionnaire was used to collect data on student participation through questions related to their engagement in the learning process. On the other hand, portfolio assessment involved evaluating the group and individual students' work to assess their level of participation in learning activities. The success of this research was evaluated based on the average student participation increase in percentage and the average passing percentage of the portfolio assessment, both reaching a minimum of 75% (Hendrayantie, 2017). The data obtained

from the questionnaire and portfolio assessment were quantitatively analyzed using Microsoft Excel, utilizing percentage calculations. The results of the analysis were presented through descriptive explanations.

FINDINGS

The results of the research on the implementation of problem-based learning to enhance student participation are presented in detail as follows.

Pre-Cycle Activities

The Pre-cycle activities were conducted by observing the class led by the teacher. The data from the Pre-cycle activities can be seen in Table 2.

No Aspect	Total	Percentage	
1 Students who engaged in question and answer during t	5 he	15.63%	
engaged in question and answer during t learning activiti	he		

Fable	2. Data	on Studen	t Particip	ation in l	Pre-cvcle	Activities
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Based on field notes, student participation in the learning activities appeared to be low. Only 5 students (15.63%) were actively involved in asking and answering questions during the presentation of the material. During class discussions, student participation was also low. Students tended to be reluctant to give their opinions or ask questions, and even when the teacher encouraged students to speak up, only a actively students responded. few Additionally, although all students managed to submit the assigned tasks, there were delays in completing them.

From the observations made, it was evident that students lacked focus and were not optimally interested in the English learning process. 45 | >>

Cycle I

To enhance student participation, the researcher implemented the problembased learning model. This model was utilized to encourage students to actively engage in the learning process. The application of problem-based learning in Cycle I resulted in student participation data as shown in Table 3.

No	Aspect	Percentage
1	Average percentage of participation based on the questionnaire	83%
2	Average percentage of portfolio score attainment	86%

 Table 3. Student Participation Data in Cycle I

Based on the findings from the first cycle of the research, it was discovered that the average percentage of student participation based on the questionnaire reached 83%, indicating an improvement in student participation. Additionally, the average percentage of students' portfolio score attainment was 86%. However, there were some observations noted from the data. Three students did not submit their assignments, resulting in a score of 0, which affected their portfolio grades. Furthermore, among the 29 students who

submitted their assignments, some were late in submitting them.

After evaluating the results of the first cycle, several aspects need to be addressed and improved. One of them is the issue of some students not submitting their assignments, as well as the problem of late submissions. To address these issues, the researcher decided to proceed to the second cycle in an effort to improvement.

Cycle II

In the second cycle, the researcher will make adjustments and

improvements in the implementation of the learning model used, with the aim of maintaining student participation and reducing the number of students who do not submit assignments, as well as improving students' time management in submitting assignments. In the second cycle, the researcher implements changes by adding follow-up and regular

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progress checks on assignments by the teacher. This step is taken as an effort to address the issues that occurred in the previous cycle. The teacher provides more guided assistance to the students. Data obtained from the second cycle are presented in Table 4.

No	Aspect	Percentage
1	Average percentage of participation based on the questionnaire	93%
2	Average percentage of portfolio score attainment	91%

Table 4. Student Participation Data in Cycle II

The results of the improvement cycle, Cycle II, showed significant namely improvement. The average percentage of student participation based on the questionnaire increased to 93%, indicating a significant improvement compared to the previous cycle. Additionally, the average percentage of portfolio grade attainment also increased to 91%. This indicates that through the implementation of follow-up and periodic progress checks on assignments, student participation in completion task and submission as one of the indicators of learning significantly process participation has improved in Cycle II.

DISCUSSION

The results of the research conducted during the pre-cycle phase indicated that student participation in learning activities using conventional methods was relatively low. Only a small percentage of students, 15.63%, actively engaged in questioning and answering during the learning process. This indicates a lack of student involvement in the learning process and a lack of willingness to participate in class discussions. This issue is consistent with previous findings (Afrianty & Kusdiyati, 2015; Christanty & Cendana, 2021). Additionally, it was found that students also faced difficulties in completing assigned tasks. The delays in task completion indicate problems with time management and a lack of discipline among students in meeting the given deadlines.

Based on a thorough analysis, several factors may have contributed to these findings. One of them is the lack of motivation among students in learning English (Nurgiansah et al., 2021; Tanner, 2013). Students may feel uninterested in the taught material or fail to see the relevance of learning English in their daily lives. Furthermore, the conventional teaching methods employed may not have sufficiently encouraged students to actively participate and develop critical thinking skills.

The results of Cycle I showed an improvement in student participation following the implementation of problembased learning. The average percentage of student participation based on the questionnaire reached 83%, indicating a significant increase compared to the pre-cycle phase. This indicates that the problem-based learning method successfully encourages students to be more active and creatively engaged in the learning activities (Derevenskaia, 2014).

One of the factors that may contribute to the increase in student participation is the approach used in the problem-based learning method. In this approach, students are encouraged to think critically and express their thoughts about the issues raised in the learning process. This aligns with the findings of Anazifa, R. D., & Djukri (2017) who stated that problem-based learning invites students to actively participate in class discussions, provide opinions, and share their thoughts. creates collaborative This а learning environment and encourages students to be more actively engaged. In this context, problem-based learning provides opportunities for students to formulate problem-solving strategies and articulate their thoughts more concretely (Derevenskaia, 2014). Students are given space to share their aspirations and discuss their opinions.

The increase in student participation in problem-based learning can be associated with enhanced intrinsic motivation (Fukuzawa et al., 2017). When students are prompted to reflect on the problems relevant to their lives, they feel more connected to the subject matter and understand its relevance to their lives. This can increase their motivation to actively participate in discussions because they see the value and direct benefits related to their personal aspirations (Harun et al., 2012).

Although there are still some students experiencing delays in task submission, the average percentage of portfolio passing reached 86%. This indicates an improvement in student discipline in completing tasks, although more attention needs to be given to students who experience delays. In working on problem-solving tasks assigned to them, periodic progress checks by the teacher can serve as reminders and additional motivation for students to complete tasks on time.

Overall, the results of the research in Cycle I indicate that the implementation of the

problem-based learning method has successfully increased student participation. As found by Anazifa, R. D., & Djukri (2017) and Derevenskaia (2014), the problem-based learning model encourages students to think critically. express their opinions. and formulate solutions they discover. With active student involvement in the learning process, it is expected that their motivation, interest, and desire to actively engage in learning and master English will increase.

Overall, the findings in Cycle I support the research of Yasminah (2020) and Inayati & Kristin (2018) that the problembased learning model can enhance student participation. Through the discussions and reflections that occur in the problem-based learning method, students can develop essential critical thinking skills in problemsolving and decision-making. They are prompted to evaluate situations, identify constraints, and find appropriate solutions. In the context of problem-solving, students are encouraged to think proactively and plan concrete steps that can help them solve reallife problems. Additionally, the implementation of the problem-based learning method also strengthens student engagement in learning (Wiznia, D., Korom, R., Marzuk, P., Safdieh, J., & Grafstein, 2012). By providing opportunities for students to express their opinions and ideas, they feel heard and valued in the learning process. This creates an inclusive environment and builds students' confidence actively participate classroom to in discussions.

Through increased student participation, it is also expected that there will be an improvement in understanding and mastery of the subject matter. When students are actively involved in learning, they have the opportunity to delve into the taught concepts and apply them in contexts relevant their lives. Thus, increased student to participation can contribute to the achievement of learning goals and their academic development (Yasminah, 2020).

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However, there were some findings that need to be addressed and improved in Cycle I, such as students not submitting assignments and delays in assignment submission. Therefore. appropriate << | 48 evaluation and improvements need to be made to address these challenges in the subsequent cycles. In this regard, the researcher conducted Cycle II as a corrective cycle while optimizing the implementation of the problem-based learning method and actively involving students in formulating problem-solving approaches. It is expected that student participation will continue to increase as the learning process progresses.

> The results of the research in the second cycle show a significant improvement in student participation compared to the previous cycle. The average percentage of participation based student on the questionnaire reached 93%, indicating a substantial increase. This demonstrates that of problem-based the implementation learning with the addition of follow-up and periodic progress checks has a positive impact on encouraging students to be more actively involved in class through task completion and submission.

> The increased student participation is also reflected in the average percentage of student portfolio grades, which reached 91%. This indicates that through the implementation of changes in the second cycle, students have shown better discipline in completing tasks and meeting deadlines for submission. Teachers provide more targeted guidance to students and regularly check the progress of their tasks, creating a sense of monitoring and motivation for students to complete their tasks effectively. With more focused guidance and the implementation of follow-up and periodic progress checks, teachers assume a role that aligns with the expectations of project-based learning, which is that of a facilitator (Munir, 2020). Thus, students can better understand their roles as active learners in the application of problembased learning.

The increase in student participation in the second cycle can be explained by several factors. First, the implementation of follow-up and periodic progress checks helps maintain students' focus on tasks and reduces delays in task submission. With more intensive guidance and monitoring, students feel more responsible for their tasks and have a greater awareness of the importance of meeting deadlines. The findings from Cycle II further support the research conducted by Yasminah (2020), Inayati & Kristin (2018), and Wiznia, D., Korom, R., Marzuk, P., Safdieh, J., & Grafstein (2012) that the implementation of the problem-based learning model can enhance student participation by encouraging them to think their critically. express opinions, and formulate solutions to the presented problems.

CONCLUSION

Overall, this research provides evidence that the implementation of problembased learning effectively enhances student participation in the learning process. Through the implementation of this method, students are encouraged to think critically, express their opinions, and formulate solutions to reallife problems. Overall, the implementation of problem-based learning in this study yields significant benefits in improving student participation. However, despite the significant increase observed, researchers should consider expanding this research by involving larger sample size and а incorporating various different learning contexts. Thus, the findings of this research contribute more broadly to can the development of effective and sustainable learning approaches.

This research contributes to enriching the literature on effective learning methods in enhancing student participation. It is expected that the findings of this research can serve as a reference for educators and policymakers in designing more innovative and studentoriented learning strategies. However, there are limitations in this research that need to be acknowledged. One of them is the time limitation, which resulted in Cycle II of this study being conducted in only one session. This limitation restricts a deeper understanding of the long-term effects of implementing problem-based learning. In future research, it is recommended to involve more sessions and a broader time frame to observe the long-term impact of this method on student participation.

REFERENCES

- Afrianty, F., & Kusdiyati, S. (2015). Studi Deskriptif School Engagement Siswa Kelas X, XI, dan XII IPS SMA Mutiara 2 Bandung. *Prosiding Penelitian Sivitas Akademika Unisba* (Sosial Dan Humaniora), 2, 460–467.
- Ahlström, B. (2010). Student Participation and School Success—The relationship between participation, grades and bullying among 9th grade students in Sweden. *Education Inquiry*, 1(2), 97–115. https://doi.org/10.3402/edui.v1i2.21935
- Airlanda, P. (2021). Jurnal basicedu. Jurnal Basicedu, 5(3), 1683–1688.
- Akpur, U. (2021). Does class participation predict academic achievement? A mixed-method study. *English Language Teaching Educational Journal*, 4(2), 148. https://doi.org/10.12928/eltej.v4i2.3551
- Anazifa, R. D., & Djukri, D. (2017). Project-based learning and problem-based learning: Are they effective to improve student's thinking skills?. Urnal Pendidikan IPA Indonesia, 6(2), 346–355.
- Basri, R., Dongoran, P. H., Syafitri, D., Silaban, A. P. W., & Tanjung, I. F. (2022). Penerapan Model Pembelajaran Group Investigation untuk Meningkatkan Partisipasi Siswa SMA dalam Pembelajaran Biologi. *BIODIK: Jurnal Ilmiah Pendidikan Biologi*, 08(03), 141– 148.
- Christanty, Z. J., & Cendana, W. (2021). Creative of Learning Students Elementary Education UPAYA GURU MENINGKATKAN KETERLIBATAN SISWA KELAS K1 DALAM PEMBELAJARAN SYNCHRONOUS. *Journal of Elementary Education*, 04(03), 3.
- Chung, E. Y. H. (2019). Facilitating learning of community-based rehabilitation through problem-based learning in higher education. *BMC Medical Education*, 19(1), 1–14. https://doi.org/10.1186/s12909-019-1868-4
- Cortázar, C., Nussbaum, M., Harcha, J., Alvares, D., López, F., Goñi, J., & Cabezas, V. (2021). Promoting critical thinking in an online, project-based course. *Computers in Human Behavior*, *119*(October 2020). https://doi.org/10.1016/j.chb.2021.106705
- Derevenskaia, O. (2014). Active learning methods in environmental education of students. *Procedia-Social and Behavioral Sciences*, 131, 101–104.
- Dian, E., Sunarmi, & Suhadi. (2015). Penerapan model pembelajaran think pair share dipadu problem based learning untuk meningkatkan partisipasi dan pemahaman konsep siswa. *Jurnal Pendidikan Biologi*, 7(2), 55. http://journal2.um.ac.id/index.php/jpb/article/view/719/451
- Eku, A. (2019). Kontekstualisasi Karakter Anak Melalui Pendidikan Dan Pembelajaran. *Al-Wardah*, *12*(1), 20. https://doi.org/10.46339/al-wardah.v12i1.131
- Fadilla, N., Nurlaela, L., Rijanto, T., Ariyanto, S. R., Rahmah, L., & Huda, S. (2021). Effect of problem-based learning on critical thinking skills. *Journal of Physics: Conference Series*, 1810(1). https://doi.org/10.1088/1742-6596/1810/1/012060
- Fioravanti, M. L., Sena, B., Paschoal, L. N., Silva, L. R., Allian, A. P., Nakagawa, E. Y., Souza, S. R. S., Isotani, S., & Barbosa, E. F. (2018). Integrating project based learning and project management for software engineering teaching: An experience report. SIGCSE 2018 -

Proceedings of the 49th ACM Technical Symposium on Computer Science Education, 2018-Janua(Icmc), 806-811. https://doi.org/10.1145/3159450.3159599

- Fukuzawa, S., Boyd, C., & Cahn, J. (2017). Student Motivation in Response to Problem-based Collected Essavs on Learning and Teaching. 10. Learning. 175-188. https://doi.org/10.22329/celt.v10i0.4748
- Furrer, C. J., Skinner, E. A., & Pitzer, J. R. (2014). The influence of teacher and peer << | 50 relationships on students' classroom engagement and everyday motivational resilience. Teachers College Record, 116(13).
 - Hadi, M. S., & Izzah, L. (2019). Problem Based Learning (PBL) in Teaching English for Students of Primary School Teacher Education Department. English Language in Focus (ELIF), 1(1), 45. https://doi.org/10.24853/elif.1.1.45-54
 - Harun, N. F., Yusof, K. M., Jamaludin, M. Z., & Hassan, S. A. H. S. (2012). Motivation in Problem-based Learning Implementation. Procedia - Social and Behavioral Sciences, 56(Ictlhe), 233-242. https://doi.org/10.1016/j.sbspro.2012.09.650
 - Hasyim, M. Q., Syafruddin, M. A., Hamzah, A., Aksir, I., Bachtiar, I., Makassar, U. N., & Jasmani, P. (2023). Jurnal Ilmiah STOK Bina Guna Medan PHYSICAL THEORY EDUCATION LEARNING THROUGH Jurnal Ilmiah STOK Bina Guna Medan. 11, 22-28.
 - Hendriana, H. (2014). Membangun Kepercayaan Diri Siswa Melalui Pembelajaran Matematika Humanis. Jurnal Pengajaran Matematika Dan Ilmu Pengetahuan Alam, 19(1), 52. https://doi.org/10.18269/jpmipa.v19i1.424
 - Inayati, B. F., & Kristin, F. (2018). Peningkatan partisipasi dan hasil belajar tematik melalui model problem based learning siswa kelas 1 SD. Holistika : Jurnal Ilmiah PGSD, 2(2), 85-93. https://jurnal.umj.ac.id/index.php/holistika/article/view/3286
 - Karan, E., & Brown, L. (2022). Enhancing Student's Problem-solving Skills through Projectbased Learning. Journal of Problem Based Learning in Higher Education, 10(1), 74-87. https://doi.org/10.54337/ojs.jpblhe.v10i1.6887
 - Librianty, H. D., & Syarif, M. (2014). Bercakap-Cakap Pada Pembelajaran Bahasa Inggris. Jurnal Pendidikan Anak Usia Dini, Volume 8 E, 1–8.
 - Michael C. Kane. (2015). The Effect of Student Participation in Student Success Skills on The Academic Behaviors and Key Learning Skills and Techniques Associated With College-Career Readiness. Florida Atlantic University.
 - Munir, M. (2020). Strategi Guru Dalam Problem Based Learning Untuk Meningkatkan Penalaran Matematika Siswa. De Fermat : Jurnal Pendidikan Matematika, 2(2), 103–108. https://doi.org/10.36277/defermat.v2i2.51
 - Nurgiansah, T. H., Hendri, H., & Khoerudin, C. M. (2021). Role Playing dalam Pembelajaran Pendidikan Pancasila Dan Kewarganegaraan. Jurnal Kewarganegaraan, 18(1), 56. https://doi.org/10.24114/jk.v18i1.22597
 - Nurlaela, Luthfiyah, B. S. B. (2021). The Collaborative Problem Based Learning Model Innovation Endah Hendarwati Luthfiyah Nurlaela Bachtiar Syaiful Bachri. 97–106.
 - Restisiwi, K., & Istikharoh, L. (2020). PENERAPAN PROBLEM BASED-LEARNING LESSON STUDY PADA PEMBELAJARAN MELALUI PPKN **UNTUK** MENINGKATKAN PARTISIPASI AKTIF DAN KERJASAMA SISWA DALAM DISKUSI KELOMPOK. Khazanah Pendidikan, 14(1).
 - Starmer, D. J., Duquette, S., & Howard, L. (2015). Participation strategies and student performance: An undergraduate health science retrospective study. Journal of Chiropractic Education, 29(2), 134–138. https://doi.org/10.7899/jce-14-20
 - Tanner, K. D. (2013). Structure matters: Twenty-one teaching strategies to promote student engagement and cultivate classroom equity. CBE Life Sciences Education, 12(3), 322-

331. https://doi.org/10.1187/cbe.13-06-0115

- Widiyaningrum, P., Lisdiana, L., & Purwantoyo, E. (2016). Evaluasi Partisipasi Siswa Dalam Pengelolaan Sampah Untuk Mendukung Program Sekolah Adiwiyata. *Indonesian Journal of Conservation*, 4(1), 2015. https://journal.unnes.ac.id/nju/index.php/ijc/article/view/5161
- Wiznia, D., Korom, R., Marzuk, P., Safdieh, J., & Grafstein, B. (2012). PBL 2.0: enhancing problem-based learning through increased student participation. *Medical Education Online*, 17(1).
- Yasminah, B. S. (2020). Penerapan Model Pembelajaran Problem-Based Learning Untuk Meningkatkan Partisipasi Dan Prestasi Belajar Siswa. *DIADIK: Jurnal Ilmiah Teknologi Pendidikan*, 10(1).
- Zheng, B., & Warschauer, M. (2015). Participation, interaction, and academic achievement in an online discussion environment. *Computers and Education*, 84, 78–89. https://doi.org/10.1016/j.compedu.2015.01.008

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