Available online at http://journal.um.ac.id/index.php/jps
P-ISSN: 2338-9117 E-ISSN: 2442-3904
DOAJ-SHERPA/RoMEO-Google Scholar

Jurnal Pendidikan Sains
Volume 12, Number 2, June 2024, pp. 50–56

PROBLEM-BASED LEARNING MODEL ASSISTED WITH A HUMANISTIC-MERDEKA BELAJAR APPROACH IMPROVED BIOLOGY STUDENTS' LEARNING OWNERSHIP

Dita Tri Mulyani[1], Dwi Listyorini[2,*], Murni Sapta Sari[3]

Department of Biology, Faculty of Mathematics and Natural Sciences, Universitas Negeri Malang, Jl. Semarang 5, Malang, 65145, Indonesia

[1]*dita.tri.2203418@students.um.ac.id*; [2] *listyorini.aljabari@um.ac.id**; [3] *murni.sapta.fmipa@um.ac.id*
*Corresponding author

DOI: 10.17977/jps.v12i22024p050

ARTICLE INFO

Article History:
Received 02/02/2024
Revised 18/02/2024
Approved 26/02/2024
Published 03/06/2024

Keywords:
Problem based learning
Humanistic-Merdeka Belajar
Learning ownership

ABSTRACT

Fostering ownership over learning constitutes a pivotal aspect for students to cultivate a comprehensive understanding, employ cognitive strategies effectively, hone essential skills, and refine learning methodologies. Preliminary studies have underscored a prevalent deficiency in the learning ownership among biology students, categorizing it as notably low. The purpose of this study is to ascertain the effect of the Project Based Learning (PBL) model assisted with a Humanistic-Merdeka Belajar (HMB) approach, in nurturing students' ownership of their learning endeavors. Employing a quasi-experimental design, the research adopts a pre-test post-test non-equivalent control group configuration, administered both prior to and following the intervention within each respective group. Data collection entails pre-test and post-test evaluations conducted through structured questionnaires. Subsequent data analysis involves employing one-way ANOVA and LSD post hoc tests. The findings distinctly indicate a positive and statistically significant impact of the HMB approach on students' learning ownership. Moreover, notable disparities in learning ownership emerge between the groups utilizing the PBL-HMB, PBL, and presentations-assignment approaches. Consequently, the findings decisively suggest that the PBL-HMB amalgamation significantly enhances the ownership of learning among biology students, surpassing the effectiveness of both PBL and presentations-assignment approaches.

How to Cite: Mulyani, D. T., Listyorini, D., & Sari, M. S. (2024). Problem-based learning model assisted with a humanistic-Merdeka Belajar approach improved biology students' learning ownership. *Jurnal Pendidikan Sains, 12*(2), 50–56. https://doi.org/10.17977/jps.v12i22024p050

INTRODUCTION

As Indonesia embarks on the transition into the era of Society 5.0, the future trajectory of the nation is significantly contingent upon its younger generations. This necessitates the cultivation of individuals possessing a repertoire characterized by high adaptability, entrepreneurial acumen, and proficiency in digitalization (LLDIKTI Wilayah VI, 2021). Education assumes a paramount role in enhancing human capital, fostering economic progress, and propelling social development within a nation (Lindsjö, 2018). Nevertheless, the educational landscape in Indonesia presently grapples with disparities stemming from substandard school infrastructure (Pratama et al., 2022; Fitri, 2021), as well as a prevalent mindset among students characterized by susceptibility to discouragement, fragility, and resentment, often dubbed as the "strawberry generation" (Kasali, 2018). Moreover, the educational milieu is further compounded by disparities in quality, effectiveness, and efficiency (Patandung & Panggua, 2022; Fitri, 2021), alongside issues of standardization (Patandung & Panggua, 2022), financial strain on teachers, and exorbitant tuition fees (Fitri, 2021). These multifaceted challenges collectively contribute to the prevailing educational disjunctions in Indonesia.

Education is deemed effective when the attained outcomes harmonize with the stipulated objectives, thereby generating outputs conducive to mastering learning outcomes comprehensively (Nurhuda, 2022). The execution of learning endeavors should foster students' acquisition of knowledge and skills that are applicable in real-life scenarios (Pratama et al., 2022). Moreover, the realized outcomes should not only align with the predefined objectives but also underscore educational efficiency, wherein optimal outputs are achieved without compromising the integrity of the learning process (Nurhuda, 2022). Given the aforementioned context, the realization of effective education necessitates the adoption of a student-centered learning approach, underpinned by a personalized approach.

The personal approach alluded to entails tailoring learning experiences to accommodate the individual characteristics and specific needs of each student. Firdaus and Mariyat (2017) characterize this approach as humanistic, which perceives individuals as autonomous entities capable of steering their own learning journey towards the pursuit of humanization. Departing from the traditional lecturer-centric model, learning under a humanistic framework empowers students by involving them in decision-making processes, thus considering their preferences and aspirations (Firdaus & Mariyat, 2017). The overarching aim of humanizing humans through education is to foster self-actualization (Firdaus & Mariyat, 2017; Jingna, 2012; Tulasi & Rao, 2021), self-understanding, and self-realization (Firdaus & Mariyat, 2017). Emotional rapport between educators and students stands out as a pivotal aspect of humanistic learning, facilitating optimal learning experiences (Jingna, 2012; Treve, 2021). Importantly, the humanistic approach transcends mere cognitive development, encompassing holistic growth across cognitive, affective, and psychomotor domains (Kurdi, 2018). This humanistic paradigm resonates with the government's Merdeka Belajar initiative, which champions student autonomy and empowerment in the educational landscape.

The concept of Merdeka Belajar, which empowers educators and students to determine the learning system (Ainia, 2020; Daga, 2021), is geared towards acquiring knowledge and experience that align with human nature (Pangestu & Rochmat, 2021). This initiative aims to liberate students by fostering free and innovative thinking (Vhalery et al., 2022; Widyastuti, 2021). According to the Ministry of Education, Culture, Research, and Technology (KEMDIKBUD-RISTEK), the essence of Merdeka Belajar lies in the freedom to learn independently, creatively, and joyfully (Nurbani et al., 2020). Essential to this paradigm is equipping students with high adaptability, digitalization proficiency (LLDIKTI Wilayah VI, 2021), and ownership of their learning (Conley & French, 2014). Learning ownership empowers students to set targets, direct their learning processes (Chan et al., 2014), exercise self-direction, understand their abilities, and engage in self-monitoring (Case, 2022). Engaged learners benefit from enhanced comprehension due to personal goals, motivation (Case, 2022), and the capacity to assess, categorize, and evaluate the learning materials provided (Chan et al., 2014; Liang et al., 2020).

The PPSP (Proyek Perintis Sekolah Pembangunan) government program, implemented from 1973 to 1984, featured concepts such as "Mastery Learning" and "Continues Progress". These concepts were actualized through student-centered independent learning, granting students the autonomy to tailor their daily learning activities according to their individual characteristics and circumstances. This approach enabled students to complete their studies at an accelerated pace, for instance, 5 years for elementary school and 2 years for both junior and senior high schools, with heightened proficiency and increased university acceptance rates (Soedijarto et al., 2010).

In alignment with the Merdeka Belajar project, KEMDIKBUD-RISTEK now mandates that every learning process integrate collaborative projects or case-based methods (PBL). This directive aims to foster critical thinking, innovation capabilities, and awareness of contemporary issues among students. However, there is a paucity of research on the correlation between these learning approaches and either the humanistic or Humanistic-Merdeka Belajar (HMB) approach. Drawing inspiration from the positive outcomes of the PPSP project and the humanistic approach, we aim to explore the potential impact of integrating the HMB approach with the PBL model, as mandated by KEMDIKBUD-RISTEK, on the development of students' learning ownership. In this study, we integrate the HMB ethos into the PBL method, thus distinguishing it from conventional PBL approaches.

The PBL model is predicated on a learning process centered around a specific problem (Arends, 2012). PBL employs real-world issues to inspire students to voice their opinions, engage in research, and initiate discussions pertaining to the given problems (Dawood et al., 2021). Learning within this framework is geared towards leveraging students' own experiences and interests (Bridges, 2006). Educators in the PBL model assume the roles of orienting students to the problem, organizing them for learning, guiding individual and group investigations, facilitating the development and presentation of findings, and analyzing and evaluating processes to address the problem (Arends, 2012). Students collaborate in groups to identify problems, gather pertinent information for problem-solving, and devise appropriate solutions (Almulla, 2020; Belland et al., 2019; Hmelo-Silver & Barrows, 2006).

In the PBL-HMB approach, the syntax is adapted from three aspects of the humanistic approach developed by Evans (1975). These aspects are then integrated into the PBL syntax with adjustments, resulting in five syntaxes. The first aspect of HMB, which is to "provide freedom to the student", is integrated into the "orient student to the problem" syntax of PBL. The second aspect of HMB, which is to "create a conducive classroom atmosphere", is integrated into the "students' learning process" syntax of PBL. The last aspect of HMB, which is "respect for others", is integrated into the "composing and presenting the observation result" aspect of PBL. The other two PBL syntaxes, "guiding the investigation" and "analysis & evaluation process to solve the problem", are adopted as is.

The Plant Development Structure II course constitutes a pivotal and intricate subject area, providing students with essential insights into the development of crucial plant structures, thereby nurturing vital life skills. This course delves into the generative organs in plants, a topic often perceived as challenging by students due to the abundance of abstract scientific terminology, numerous concepts necessitating memorization (Rahmat & Hindriana, 2014), and the passive demeanor of students who exhibit reluctance to engage or lack ownership in the learning process (Sari et al., 2017). Furthermore, a staggering statistic reveals that approximately 40% of the nearly two million students who commence their studies at the University of Oxford annually fail to obtain a bachelor's degree, primarily attributed to their deficient learning ownership hindering the fulfillment of their learning objectives (Case, 2022). Research conducted in Ghana and South Africa corroborates this notion, indicating that 24% of students lack learning ownership due to the absence of opportunities to participate in discussions regarding the learning process, uncertainties regarding their abilities, and an over-reliance on facilitator-provided content (Conley & French, 2014; Owusu-Agyeman & Fourie-Malherbe, 2019).

Based on preliminary study findings from 75 students who undertook the Plant Development Structure II course on September 6, 2023, utilizing a questionnaire administered via Google Form, it was discerned that the average level of learning ownership stood at 45.02%, categorizing it as low. Recognizing the existing challenges and acknowledging the positive impacts of both the PBL model and the humanistic approach on student development, we propose the integration of a problem-based learning model with a

humanistic-independent learning approach as a potential solution. This study aims to ascertain the effect of the PBL-HMB learning model in fostering students' learning ownership, employing the Plant Development Structure II course as a model course for investigation.

METHOD

This research adopts a quasi-experimental design and was conducted between August and November 2023 within the Department of Biology, Faculty of Mathematics and Natural Sciences, Universitas Negeri Malang. The study population comprised 93 third-semester students enrolled in the Biology and Biology Education programs at Universitas Negeri Malang in 2021. Random sampling was employed to select participants. The research sample was divided into three groups: an experimental group, a positive control group, and a negative control group, all possessing similar characteristics. The experimental group underwent a learning process employing the PBL-HMB approach. This approach encompassed five steps: (1) facilitating integrated learning and problem orientation, (2) fostering a conducive classroom environment conducive to collaborative learning, (3) guiding both individual and group investigations, (4) developing and presenting integrated results while acknowledging individual contributions, and (5) scrutinizing and evaluating processes to tackle challenges. Conversely, the positive control group experienced the traditional PBL method, focusing on problem orientation, organizing learning activities, guiding investigations, presenting results, and analyzing processes. In contrast, the negative control group relied on student presentations and individual assignments without adherence to a structured methodology.

A questionnaire comprising 18 statements across nine dimensions of learning ownership served as the research instrument. These dimensions encompassed motivation, engagement, goal orientation, self-direction, self-efficacy, self-confidence, metacognition, self-monitoring, and persistence. The instrument underwent rigorous validation and reliability testing. Data collection involved pre-test and post-test assessments administered before and after the treatment, respectively. Statistical analysis was performed using one-way ANOVA in IBM SPSS Statistics 26 software, supplemented by post hoc LSD tests to discern significant differences among the learning groups.

RESULTS

The dataset pertaining to students' learning ownership, comprising pre-test and post-test scores, underwent rigorous analysis to assess normality and homogeneity. The Kolmogorov-Smirnov test revealed a statistically insignificant deviation from normal distribution, as evidenced by a *p*-value > 0.05 (Table 1). Additionally, the Levene's Test of Equality of Error Variances yielded a *p*-value of 0.307, surpassing the significance threshold of 0.05, indicating homogeneous distribution of the learning ownership variable.

The results of the one-way ANOVA test reveal a notable discrepancy in learning ownership across the three groups, evidenced by a *p*-value of 0.00, which falls below the significance threshold of 0.05. Examining the mean pre-test and post-test scores, it is evident that the group utilizing presentations as a learning method exhibited a mean pre-test score of 48.80 and a post-test score of 70.03. Meanwhile, the group employing PBL demonstrated a mean pre-test score of 49.23 and a post-test score of 75.45. Notably, the group utilizing PBL-HMB displayed a mean pre-test score of 48.62 and a post-test score of 80.34 (Figure 1).

Table 1. Normality test result.

Group	*p*-value Learning Ownership	
	Pre-test	Post-test
Presentation	0.112	0.200
PBL	0.200	0.200
PBL-HMB	0.200	0.193

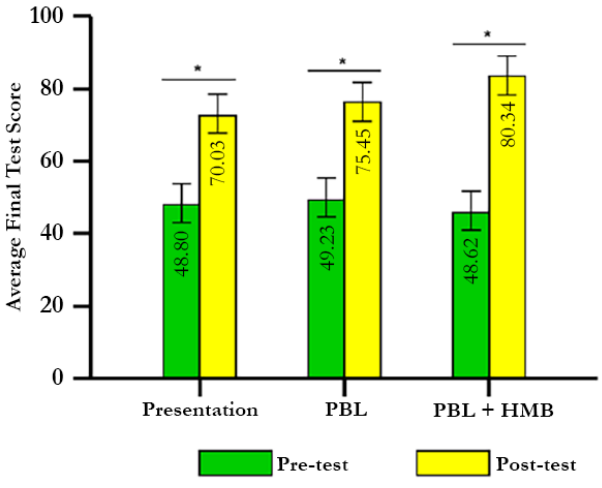

Figure 1. Average learning ownership.

Table 2. Summary of one-way ANOVA test result learning group interaction on learning ownership.

Group	Pre-test	Post-test	Difference	Increased	Corrected Average	LSD Notation
Presentation	48.80 ± 5.77	70.03 ± 3.65	21.23	44%	70.03	a
PBL	49.23 ± 5.82	75.45 ± 5.26	26.22	53%	75.45	b
PBL-HMB	48.62 ± 6.72	80.34 ± 4.35	31.72	65%	80.34	c

Subsequent LSD tests further elucidated significant differences among the three groups. Specifically, presentations exhibited significant distinctions from PBL, PBL differed significantly from PBL-HMB, and PBL-HMB varied significantly from presentations, as presented in Table 2.

DISCUSSION

Learning in college requires learning ownership to prepare knowledge, cognitive strategies, skills, and learning techniques (Conley & French, 2014). The findings of this study revealed that the implementation of PBL-HMB was notably superior in fostering students' learning ownership compared to traditional presentation-based learning and conventional PBL in the context of the Plant Development Structure II course. We posit that these disparities can be attributed to the pedagogical approach employed by PBL-HMB. The integration of humanistic principles with the autonomy inherent in the Merdeka Belajar framework empowers students to take charge of their learning process, contrasting with the more structured nature of PBL and presentation-based models. This study underscores the significance of affording students the opportunity to cultivate awareness regarding what they learn and how they learn, tailored to their individual preferences. Notably, heightened consciousness observed throughout the learning journey positively impacted students' motivation to engage with the subject matter. The discernible variations in students' mental disposition during the learning process across PBL-HMB, PBL, and presentation-based models are comprehensible, given that the PBL-HMB approach intricately involves students at every stage of the learning process.

The initial stage entails students selecting a learning strategy and framing the problem using the provided articles. Here, students are afforded the autonomy to identify their preferred learning style either collaboratively or individually, by elucidating pertinent issues through student worksheets. Each group assumes the responsibility of framing the problem. Through observation, these activities have been instrumental in fostering confidence and motivation among students. This newfound confidence facilitates decision-making regarding their preferred learning style, a choice known to be influenced by their abilities, metacognitive skills, and motivation in learning activities (Acosta-Gonzaga & Ramirez-Arellano, 2021). Students inclined toward learning exhibit heightened attentiveness to lessons, gradually nurturing interest and deriving pleasure, thereby fostering diligence and enthusiasm to actively engage in the learning process and comprehend their objectives (Koca, 2016). The problem orientation activities not only enable students to grapple with the same problem but also encourage diverse learning outcomes based on their level of engagement in the learning process (Wiggins et al., 2016), thereby stimulating motivation to grasp conceptual nuances (Argaw et al., 2016). Such learning methodologies pave the way for students to attain their objectives more effectively (Kassaw & Astatke, 2017) compared to conventional PBL and presentation-based approaches.

The subsequent stage entails fostering a conducive classroom environment where students are encouraged to engage actively, creatively, and innovatively in the learning process. Through collaborative discussions, students are empowered to independently compare facts and intertwine perspectives, thus broadening their understanding of diverse viewpoints. This active engagement fosters a culture wherein students are motivated to seek truth, gather perspectives, and express opinions without inhibition (Amerstorfer & von Münster-Kistner, 2021), bolstering their confidence in their abilities (Akbari & Sahibzada, 2020; Hendriana et al., 2014) in stark contrast to traditional PBL and presentation-based approaches. Moreover, this stage serves as a catalyst for the development of critical thinking skills among students (Coutts, 2019). Their burgeoning confidence emboldens students to take risks, explore novel ideas and concepts, and cultivate a repertoire of skills to navigate diverse situations or specific circumstances (Lone, 2021). The combined activities in this stage, coupled with those in the preceding stage, contribute significantly to fostering a deeper sense of ownership over the learning process among students, as they are actively engaged throughout.

In the third stage, students engage in guided investigations either individually or collaboratively. They adeptly employ selected data to draw conclusions, utilizing their own cognitive abilities (Frith, 2012). These activities notably enhance students' efficacy, a trait prominently observed in the PBL-HMB group, albeit to a lesser extent in the PBL group, and scarcely evident in the presentation-assignment group. Students exhibiting high self-efficacy not only depend on instructors but also possess the capability to independently pursue knowledge and skills through various channels (Alhadabi & Karpinski, 2020). Furthermore, they demonstrate enhanced time-management skills, derive greater satisfaction from challenging tasks, and engage in deeper cognitive processes (Schnell et al., 2015). Upon completion of this stage, students' ownership of their learning journey becomes significantly enriched.

Drawing from their investigative findings in the preceding stage, students proceed to develop and present their discussions concerning pertinent issues, along with proposing potential solutions for implementation. During these activities, students cultivate receptiveness to others' ideas and demonstrate a respectful attitude towards diverse viewpoints. Actively participating in discussions, students exhibit attentiveness to each other's explanations and genuineness, as observed throughout the learning process, which are integral facets of learning ownership itself. Moreover, they showcase heightened persistence compared to their counterparts in the other two groups, thereby fortifying their character traits (Tinto, 2017). Students characterized by high levels of persistence exhibit an

unwavering commitment to realizing their goals, even in the face of challenges encountered during their learning journey (Mutlu & Yıldırım, 2019).

Following the presentations by all learning groups, students engage in analyzing and evaluating the potential solutions proposed by each group to address the identified issues. They further reflect on their investigative processes, comparing arguments to formulate a comprehensive final conclusion. These activities stimulate various cognitive processes that emerge during discussions, including their metacognitive capabilities. Actively participating in learning endeavors fosters the encouragement of metacognitive strategies and self-monitoring among students (Frith, 2012). Additionally, this final stage entails students' involvement in evaluating their own learning process. The insights garnered from these activities are invaluable, as they can be applied in real-life scenarios to enhance the effectiveness of learning practices (Ghanizadeh, 2017).

Collectively, the holistic PBL-HMB process has demonstrated its efficacy in enhancing students' engagement from the initial learning planning phase to the final evaluation, seamlessly aligning with their convenience. This heightened involvement at their convenience not only results in their happiness, as observed in empirical data (Nurbani et al., 2020), but also fosters a sense of enjoyment in learning (Schnell et al., 2015). Consequently, students exhibit increased enthusiasm and activity throughout the learning journey, in line with the objectives outlined in the Merdeka-Belajar curriculum (Nurbani et al., 2020). Moreover, it is evident that the PBL-HMB approach surpasses both PBL and presentation-assignment approaches in fostering students' learning ownership, particularly in navigating the complexities of courses such as Plant Development Structure II. This approach empowers students to actively participate, instilling confidence and respect for one another, thus potentially simplifying the perceived complexity of certain challenging courses. The implementation of PBL-HMB, characterized by "enjoyable learning and a sense of involvement", not only enhances students' learning ownership but also significantly improves critical thinking and cognitive outcomes, as evidenced by previous research (Data set). Hence, we propose for the integration of this approach into other courses, regardless of their complexity. Recognizing the importance of developing learning ownership in every student, it becomes imperative to incorporate HMB approaches, whether in conjunction with PBL or other learning models, even at lower academic levels such as elementary and secondary schools. Such early implementation of HMB may facilitate the development of students' ownership from an early age, thus enhancing their academic achievements. However, further comprehensive studies are warranted to tailor the implementation of HMB approaches to the unique nature of various courses, especially those employing PBL methodologies.

CONCLUSION

This study demonstrates that learning through the Project Based Learning with Humanistic-Merdeka Belajar (PBL-HMB) approach significantly enhances students' learning ownership compared to both PBL and presentation-assignment approaches. The findings underscore the importance of implementing PBL-HMB or HMB alone in schools. However, this implementation requires careful consideration of students' individual characteristics.

ACKNOWLEDGMENTS

The authors would like to express the deepest gratitude to the Department of Biology students, Faculty of Mathematics and Natural Sciences, Universitas Negeri Malang for their support and participation in data collection of this research.

FUNDING AGENCIES

The authors no received financial support for the research, authorship, and/or publication of this article.

AUTHOR CONTRIBUTIONS

DTM was involved in conceptualizing the study, designing the methodology, performing statistical analysis, and drafting the manuscript. DL was conceptualizing and designing the study, supervising the research, critically reviewing, and revising the manuscript draft for both intellectual content and format. MSS contributed to the supervision of the project.

CONFLICT OF INTEREST STATEMENT

The authors declared no potential conflicts of interest with respect to the research, authorship, and/or publication of this article.

REFERENCES

Acosta-Gonzaga, E., & Ramirez-Arellano, A. (2021). The influence of motivation, emotions, cognition, and metacognition on students' learning performance: A comparative study in higher education in blended and traditional contexts. *Sage Open*, *11*(2), 21582440211027561. https://doi.org/10.1177/21582440211027561

Ainia, D. K. (2020). Merdeka belajar dalam pandangan Ki Hadjar Dewantara dan relevansinya bagi pengembanagan pendidikan karakter. *Jurnal Filsafat Indonesia*, *3*(3), 95–101. https://doi.org/10.23887/jfi.v3i3.24525

Akbari, O., & Sahibzada, J. (2020). Students' self-confidence and its impacts on their learning process. *American International Journal of Social Science Research*, *5*(1), 1–15. https://doi.org/10.46281/aijssr.v5i1.462

Alhadabi, A., & Karpinski, A. C. (2020). Grit, self-efficacy, achievement orientation goals, and academic performance in university students. *International Journal of Adolescence and Youth*, *25*(1), 519–535. https://doi.org/10.1080/02673843.2019.1679202

Almulla, M. A. (2020). The effectiveness of the project-based learning (PBL) approach as a way to engage students in learning. *Sage Open*, *10*(3), 2158244020938702. https://doi.org/10.1177/2158244020938702

Amerstorfer, C. M., & von Münster-Kistner, C. F. (2021). Student perceptions of academic engagement and student-teacher relationships in problem-based learning. *Frontiers in Psychology*, *12*, 713057. https://doi.org/10.3389/fpsyg.2021.713057

Arends, R. I. (2012). *Learning to teach*. Boston, MA: McGraw-Hill.

Argaw, A. S., Haile, B. B., Ayalew, B. T., & Kuma, S. G. (2016). The effect of problem based learning (PBL) instruction on students' motivation and problem solving skills of physics. *Eurasia Journal of Mathematics, Science and Technology Education*, *13*(3), 857–871. https://doi.org/10.12973/eurasia.2017.00647a

Belland, B. R., Gu, J., Kim, N. J., Jaden Turner, D., & Mark Weiss, D. (2019). Exploring epistemological approaches and beliefs of middle school students in problem-based learning. *The Journal of Educational Research*, *112*(6), 643–655. https://doi.org/10.1080/00220671.2019.1650701

Bridges, A. H. (2006). A critical review of problem based learning in architectural education. In V. Bourdakis, & D. Charitos (Eds.), *Communicating space(s)*. Proceedings of the 24th Conference on Education in Computer Aided Architectural Design in Europe (pp. 182–189). University of Thessaly, Volos, Greece. https://doi.org/10.52842/conf.ecaade.2006.182

Case, A. S. (2022). The role of teachable ownership of learning components in college adjustment. *Journal of Student Affairs Research and Practice*, *59*(2), 180–195. https://doi.org/10.1080/19496591.2020.1825459

Chan, P. E., Graham-Day, K. J., Ressa, V. A., Peters, M. T., & Konrad, M. (2014). Beyond involvement: Promoting student ownership of learning in classrooms. *Intervention in School and Clinic*, *50*(2), 105–113. https://doi.org/10.1177/1053451214536039

Conley, D. T., & French, E. M. (2014). Student ownership of learning as a key component of college readiness. *American Behavioral Scientist*, *58*(8), 1018–1034. https://doi.org/10.1177/0002764213515232

Coutts, L. (2019). Empowering students to take ownership of their learning: Lessons from one piano teacher's experiences with transformative pedagogy. *International Journal of Music Education*, *37*(3), 493–507. https://doi.org/10.1177/0255761418810287

Daga, A. T. (2021). Makna merdeka belajar dan penguatan peran guru di sekolah dasar. *Jurnal Educatio FKIP UNMA*, *7*(3), 1075–1090. https://doi.org/10.31949/educatio.v7i3.1279

Dawood, O., Rea, J., Decker, N., Kelley, T., & Cianciolo, A. T. (2021). Problem-based learning about problem-based learning: Lessons learned from a student-led initiative to improve tutor group interaction. *Medical Science Educator*, *31*, 395–399. https://doi.org/10.1007/s40670-021-01259-1

Evans, R. I. (1975). *Carl Rogers: The man and his ideas*. New York, NY: Dutton.

Firdaus, F. A., & Mariyat, A. (2017). Humanistic approach in education according to Paulo Freire. *At-Ta'dib*, *12*(2), 25–48. https://doi.org/10.21111/at-tadib.v12i2.1264

Fitri, S. F. N. (2021). Problematika kualitas pendidikan di indonesia. *Jurnal Pendidikan Tambusai*, *5*(1), 1617–1620. https://www.jptam.org/index.php/jptam/article/view/1148

Frith, C. D. (2012). The role of metacognition in human social interactions. *Philosophical Transactions of the Royal Society B: Biological Sciences*, *367*(1599), 2213–2223. https://doi.org/10.1098/rstb.2012.0123

Ghanizadeh, A. (2017). The interplay between reflective thinking, critical thinking, self-monitoring, and academic achievement in higher education. *Higher Education*, *74*, 101–114. https://doi.org/10.1007/s10734-016-0031-y

Hendriana, H., Slamet, U. R., & Sumarmo, U. (2014). Mathematical connection ability and self-confidence (An experiment on junior high school students through contextual teaching and learning with mathematical manipulative). *International Journal of Education*, *8*(1), 1–11. https://doi.org/10.17509/ije.v8i1.1726

Hmelo-Silver, C. E., & Barrows, H. S. (2006). Goals and strategies of a problem-based learning facilitator. *Interdisciplinary Journal of Problem-Based Learning, 1*(1), 21–39. https://doi.org/10.7771/1541-5015.1004

Jingna, D. U. (2012). Application of humanism theory in the teaching approach. *Higher Education of Social Science*, *3*(1), 32–36. https://doi.org/10.3968/j.hess.1927024020120301.1593

Kasali, R. (2018). *Strawberry generation*. Bandung, Indonesia: Mizan.

Kassaw, K., & Astatke, M. (2017). Gender, academic self-efficacy, and goal orientation as predictors of academic achievement. *Global Journal of Human Social Science: Arts and Humanities–Psychology*, *17*(6), 55–65.

Koca, F. (2016). Motivation to learn and teacher-student relationship. *Journal of International Education and Leadership*, *6*(2), 1–20. https://files.eric.ed.gov/fulltext/EJ1135209.pdf

Kurdi, M. S. (2018). Evaluasi implementasi desain pendidikan karakter berbasis pendekatan humanistik. *Elementary: Jurnal Ilmiah Pendidikan Dasar*, *4*(2), 125–138. https://doi.org/10.32332/elementary.v4i2.1243

Liang, X., Collins, L. J., Lenhart, L., & Ressa, V. (2020). Instructional change following formative instructional practices professional development. *Teacher Development*, *24*(1), 108–125. https://doi.org/10.1080/13664530.2019.1705886

Lindsjö, K. (2018). Contextualizing the quality of primary education in urban and rural settings: The case of Iringa Region, Tanzania. *Norsk Geografisk Tidsskrift-Norwegian Journal of Geography*, *72*(4), 234–247. https://doi.org/10.1080/00291951.2018.1492962

LLDIKTI Wilayah VI. (2021, November 29). *Indonesia butuhkan generasi muda berkarakter dan berdaya saing*. Retrieved from https://lldikti6.kemdikbud.go.id/2021/11/29/indonesia-butuhkan-generasi-muda-berkarakter-dan-berdaya-saing/

Lone, R. A. (2021). Self-confidence among students and its impact on their academic performance: A systematic review. *International Journal of Creative Research Thoughts*, *9*(2), 561–565.

Mutlu, G., & Yıldırım, A. (2019). Learning environment perceptions and student background variables as determinants of persistence in EFL learning. *Sage Open*, *9*(4), 2158244019898805. https://doi.org/10.1177/2158244019898805

Nurbani, D. F., Ardijansah, D., Akbar, W. J., Prasetya, I. H., & Heriyanto, W. (2020). *Buku saku merdeka belajar: Prinsip dan implementasi pada jenjang pendidikan SMA*. Jakarta, Indonesia: Kementerian Pendidikan dan Kebudayaan. https://repositori.kemdikbud.go.id/20029/1/Buku Merdeka Belajar 2020.pdf

Nurhuda, H. (2022). Masalah-masalah pendidikan nasional; Faktor-faktor dan solusi yang ditawarkan. *Dirasah: Jurnal Pemikiran dan Pendidikan Dasar Islam*, *5*(2), 127–137. https://stai-binamadani.e-journal.id/jurdir/article/view/406

Owusu-Agyeman, Y., & Fourie-Malherbe, M. (2019). Negotiating co-ownership of learning in higher education: an underexplored practice for adult learning. *Studies in Continuing Education*, *41*(1), 17–35. https://doi.org/10.1080/0158037X.2018.1497591

Pangestu, D. A., & Rochmat, S. (2021). Filosofi merdeka belajar berdasarkan perspektif pendiri bangsa. *Jurnal Pendidikan dan Kebudayaan*, *6*(1), 78–92. https://doi.org/10.24832/jpnk.v6i1.1823

Patandung, Y., & Panggua, S. (2022). Analisis masalah-masalah pendidikan dan tantangan pendidikan nasional. *Jurnal Sinestesia*, *12*(2), 794–805. https://sinestesia.pustaka.my.id/journal/article/view/277

Pratama, N. Y. P., Isa, S. F. P., & Yunita, S. (2022). Analisis penyebab rendahnya relevansi pendidikan dengan tuntutan masyarakat. *Jurnal Pendidikan Tambusai*, *6*(2), 9752–9759. https://doi.org/10.31004/jptam.v6i2.3937

Rahmat, A., & Hindriana, A. F. (2014). Beban kognitif mahasiswa dalam pembelajaran fungsi terintegrasi struktur tumbuhan berbasis dimensi belajar. *Jurnal Ilmu Pendidikan*, *20*(1), 66–74. http://dx.doi.org/10.17977/jip.v20i1.4379

Sari, M. S., Sunarmi, S., & Sulasmi, E. S. (2017). Analisis kemampuan literasi sains mahasiswa Jurusan Biologi UM pada matakuliah struktur perkembangan tumbuhan. In E. Yulianti, & R. C. Handziko, *Penelitian, pendidikan dan penerapan biologi untuk mendukung pencapaian sustainable development goals (SDGs)*. Proceedings of the Prosiding Seminar Nasional 2017 Jurusan Pendidikan Biologi FMIPA UNY (pp. PB-1–PB-6). Yogyakarta, Indonesia. http://seminar.uny.ac.id/sembiouny2017/sites/seminar.uny.ac.id.sembiouny2017/files/PB%201.pdf

Schnell, K., Ringeisen, T., Raufelder, D., & Rohrmann, S. (2015). The impact of adolescents' self-efficacy and self-regulated goal attainment processes on school performance—Do gender and test anxiety matter?. *Learning and Individual Differences*, *38*, 90–98. https://doi.org/10.1016/j.lindif.2014.12.008

Soedijarto, S., Thamrin, T., Karyadi, B., Siskandar, S., & Sumiyati, S. (2010). *Sejarah pusat kurikulum*. Jakarta, Indonesia: Pusat Kurikulum, Badan Penelitian dan Pengembangan, Kementerian Pendidikan Nasional.

Tinto, V. (2017). Reflections on student persistence. *Student Success*, *8*(2), 1–8. https://doi.org/10.5204/ssj.v8i2.376

Treve, M. (2021). Study of humanistic education: Concerns, implications, and applications. *Turkish Journal of Computer and Mathematics Education (TURCOMAT)*, *12*(11), 6303–6310. https://doi.org/10.17762/turcomat.v12i11.7005

Tulasi, L., & Rao, C. S. (2021). A review of humanistic approach to student centred instruction. *The Review of Contemporary Scientific and Academic Studies*, *1*(1), 1–5. https://thercsas.com/wp-content/uploads/2022/01/Laxmi.rcsas_.1.1.01.pdf

Vhalery, R., Setyastanto, A. M., & Leksono, A. W. (2022). Kurikulum merdeka belajar kampus merdeka: Sebuah kajian literatur. *Research and Development Journal of Education*, *8*(1), 185–201. https://doi.org/10.30998/rdje.v8i1.11718

Widyastuti, R. (2021). Relevansi pemikiran Ki Hajar Dewantara dengan konsep merdeka belajar. *Prosiding Seminar Nasional Manajemen Pendidikan*, *2*(1), 1068–1077. https://jurnal.ustjogja.ac.id/index.php/semnasmp/article/view/10880

Wiggins, S., Chiriac, E. H., Abbad, G. L., Pauli, R., & Worrell, M. (2016). Ask not only 'What can problem-based learning do for psychology?'but 'What can psychology do for problem-based learning?'A review of the relevance of problem-based learning for psychology teaching and research. *Psychology Learning & Teaching*, *15*(2), 136–154. https://doi.org/10.1177/1475725716643270