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Effect Size Model Inquiry Based Learning on the Ability of Pancasila Student Profile

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Abstract

The purpose of this study was to determine the effect of the size of the inquiry-based learning model on the ability of the student profile of Pancasila students. This type of research is quantitative research with a meta-analysis approach. Data sources come from 10 journals published 2020-2024. The process of searching for data through google scholar, mendeley, ScienceDirect, ERIC and Taylor of Francis. Data selection process using PRISMA 2020 method. Inclusion criteria are research must be experimental methods, research comes from national and international journals indexed by SINTA and Scopus, research must be related to research variables, research subjects of elementary, junior high and high school students, and research has complete data to calculate the value of effect size. Data analysis is calculating the effect value of each study with the help of Microsoft Excel 2020. The results of the study concluded that the inquiry-based learning model had a significant influence on the ability of the student profile of Pancasila students with an average effect size value of 0.806 with high effect size criteria. This study provides important information for teachers to implement inquiry-based learning models on the ability of student profiles of Pancasila students.

Keywords:Inquiry Based Learning, Effect Size, Pancasila Student Profile

Introduction

The Industrial Revolution 5.0 Society has a significant impact on the world of education in Indonesia (Puspitasari et al., 2021). In Indonesia, students must be faced with an independent curriculum that guides students to have the ability of the Pancasila student profile. The Pancasila student profile describes students' ability to understand, internalize, and implement Pancasila values in everyday life and in the context of learning (Syofyan et al., 202; Utari & Afendi, 2022). Students who have the ability of the Pancasila student profile tend to have a high awareness of the importance of noble values contained in Pancasila, such as mutual assistance, social justice, democracy, and diversity (Wumu &; Buhungo, 2023). They are able to carry out actions that reflect the spirit of unity and unity, and respect differences in diverse backgrounds and beliefs, thus creating an inclusive and harmonious learning environment (Susanti et al., 2023).

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In addition, students with the ability of the Pancasila student profile are also able to play a role as agents of change that promote goodness and justice in society (Saphira, 2022). They are active in social activities, participate in sustainable development efforts, and uphold moral values in various life situations. Thus, they not only become academically successful individuals, but also responsible for creating positive changes for themselves, their families, and the surrounding environment, in accordance with the spirit of Pancasila as the main guide for community life (Viorezaa et al., 2024; Leva &; Safitri, 2023).

But in reality, the ability of the student profile of Pancasila students in schools is still relatively low (Yanzi et al., 2022). This can be seen the low independence, cooperation and creativity of students in learning (Krisna et al., 2023; Praise et al., 2022; Maslyah & Amri, 2023). Furthermore, the level of students' critical and creative thinking skills is low. The results of PISA research in 2018 showed that the science literacy ability of Indonesian students obtained a score of 396, ranked 71 out of 78 countries (Rahman et al., 2023; Suryono et al., 2023; Nurtamam et al., 2023; Rahman et al., 2023; Elfira et al., 2023). This result is also supported by the results of TIMSS research in 2015 the critical thinking ability of Indonesian students obtained a score of 397 lower than the average international score of 500 (Oktarina et al., 2021; (Zulyusri et al., 2023). In learning activities, teachers do not direct students to improve the ability of students' pancasila student profiles. Therefore, it is necessary to have a model that can encourage the ability of the Pancasila student profile.

Inquiry-based learning is one model that can encourage the ability of the Pancasila student profile (Khoirudin et al., 2023). The inquiry-based learning model is a learning model that places students as the main agents in the teaching-learning process (Sonsun et al., 2023; Sreejun & Chatwattana, 2023). In this model, the teacher acts as a facilitator who guides students in discovering knowledge through exploration, research, and reflection. Students are encouraged to ask questions, investigate problems, and find solutions independently or collaboratively, thus building a deep understanding and relevant to real-life contexts (Zhao et al., 2020; Daniel et al., 2022). Thus, the inquiry-based learning model not only develops students' cognitive skills, but also enhances their ability to think critically, communicate, and work together effectively (Manishimwe &; Shivoga, 2022).

Previous research by Bakirci et al., (2022) The inquiry-based learning model can improve students' ability to understand concepts in learning. Research by Bekteshi &; Avdiu, (2023) The implementation of the inquiry-based learning model encourages creative thinking skills and student learning outcomes. Next Hasan et al., (2019) The inquiry-based learning model is able to foster students' critical and creative thinking skills in learning. However, there are many studies on the inquiry-based learning model that describe the effect of size inquiry-based learning on the ability of students' pancasila student profiles. Therefore, it is necessary to conduct a meta-analysis to determine the influence of inquiry-based learning from all previous research to get a deep and accurate conclusion. So, this study aims to determine the effect of the size of the inquiry-based learning model on the ability of the student profile of Pancasila students.

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Research Methods

This type of research is quantitative research with a meta-analysis approach. Meta-analysis is a type of research that collects and analyzes primary research quantitatively to draw conclusions (Santosa et al., 2021;Suparman et al., 2021; Juandi et al., 2021 ; Santosa et al., 2021; Chamdani et al., 2022; Suharyat et al., 2023). Data sources come from 10 journals published 2020-2024. The process of searching for data through google scholar, mendeley, ScienceDirect, ERIC and Taylor of Francis. Data selection process using PRISMA 2020 method. Inclusion criteria are research must be experimental methods, research comes from national and international journals indexed by SINTA and Scopus, research must be related to research variables, research subjects of elementary, junior high and high school students, and research has complete data to calculate the value of effect size. Data analysis is calculating the effect value of each study with the help of Microsoft Excel 2020. Furthermore, the process of finding values and criteria for effect size values is guided by effect size criteria Cohen et al., (2007) can be seen in Table 1. and 2.

Table 1. Formula for Finding Effect Size

Statistical Data	Formula
Average value on one group	$ES = \frac{\bar{x}_{post} - \bar{x}_{pre}}{SD_{pre}}$
Average scores in each group	$ES = \frac{\bar{x}_{Exsperiment} - \bar{x}_{Control}}{SD_{Control}}$
Mean and Standard deviation values in each group (two groups of postes-pretest)	$ES = (\frac{(\bar{x}_{post} - \bar{x}_{pre})_E - (\bar{x}_{post} - \bar{x}_{pre})_c}{SD_{preC} + SD_{preE} + SD_{postC}}$
Chi square	$ES = \frac{2r}{\sqrt{1-r^2}}$; r=$\sqrt{\frac{x^2}{n}}$
t-count	$ES = t\sqrt{\frac{1}{n_{experiment}} + \frac{1}{n_{Control}}}$
P-Value	Microsoft Excel 2020

Source : Becker & Park Dalam (Khoiri, 2019; Hidayatullah & Wulan, 2022)

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Table 2. Cohen's Effect Size Value Criteria

Effect Size Value	Category
0.0≤ ES ≤ 0.2	Low
0.2≤ ES ≤ 0.8	Medium
ES ≥ 0.8	High

Results and Extermination

From the results of literature search through Google Scholar, Mendeley, ScienceDirect, ERIC and Taylor of Francis obtained 114 journals regarding inquiry-based learning models on the ability of student profiles of Pancasila students. However, the journal was selected according to the specified inclusion criteria, so 10 papers were included in the meta-analysis. Research that meets the inclusion criteria is calculated effect size value which can be seen in Table 3.

Table 3. Value Effect Size 10 Journal

Journal Code	Year	Country	Effect Size	Criterion
JL1	2020	Indonesian	1.12	Tall
JL2	2020	Indonesian	0.61	Medium
JL3	2021	Indonesian	0.97	High
JL4	2021	Indonesian	1.32	High
JL5	2023	Indonesian	1.09	High
JL6	2023	Indonesian	0.44	Medium
JL7	2023	Indonesian	0.32	Medium
JL8	2022	Indonesian	0.78	Medium
JL9	2024	Indonesian	0.84	High
JL10	2023	Indonesian	0.57	Medium
Average Effect Size Value			**0.806**	**High**

Table 3, the results of the effect size analysis of 10 journals obtained the lowest effect size value of 0.32 and the highest of 1.32. Furthermore, according to the criteria of effect size value Cohen et al., (2007) Of the 10 effect sizes analyzed, there were 5 journals with medium effect size criteria and 5 studies with high effect size values. The average value of the overall szie effect of the journals analyzed is 0.806, so it can be concluded that the inquiry-based learning model has a positive effect on the proful ability of Pancasila students with high categories. Research in line with Windyarani (2020) The inquiry-based learning model can help students grow the profile of Pancsila students in solving problems in life. Research on the effect of the size of inquiry-based learning models on the ability of students' Pancasila student profiles is an interesting topic to explore because it covers two important aspects in education, namely innovative learning methods and student character building in accordance with Pancasila values (Permatasari et al., 2019). In this study, researchers can use valid and reliable

instruments to measure the ability of students' Pancasila student profiles before and after the application of the inquiry-based learning model. Thus, research can produce accurate data on changes in students' ability to understand, internalize, and implement the values of Pancasila after following learning with this approach (Yıldız &; Demirci, 2021).

Furthermore, the size effect analysis of this study will provide an idea of how much influence the inquiry-based learning model has on the ability of students' Pancasila student profiles. Research results that show a significant size effect will provide strong empirical evidence about the effectiveness of these learning methods in increasing the understanding and implementation of Pancasila values in students. This can be the foundation for the development of education policies that better support the implementation of inquiry-based learning models at various levels of education to strengthen students' character in internalizing the values of Pancasila (Muqit et al., 2023). In addition, this research can also provide new insights for education practitioners regarding the importance of integration between innovative learning methods and student character building based on Pancasila values (Susanti et al., 2023). Practical implications of this research could include the development of more targeted and holistic curriculum and learning strategies, as well as training for teachers in implementing inquiry-based learning models effectively (Laila &; Assunniyah, 2022). Thus, this research will not only make an academic contribution in the field of education, but also have a real positive impact in advancing the development of quality student character in accordance with the spirit of Pancasila.

Furthermore, analyzing the effect size based on the level of education of the application of the inquiry-based learning model on the ability of the student profile of pancasila students which can be seen in Table 4.

Table 4. Results of Effect Size Value Analysis based on Education Level

Education Level	Efect Size	ONE	Criterion	Average Effect Size
SD	0.78	0.31	Medium	0.85
SMP	0.86	0.35	High	
SMA	0.92	0.38	High	

Table 4, the results of the analysis of the effect size value of elementary school level of 0.78 and SE 0.31, junior high school of 0.86 and elementary school of 0.35 and SMA of 0.92 and SE of 0.38 and the average value of effect size based on education level of 0.85. These results conclude that the inquiry-based learning model is effectively applied at the primary to secondary education levels. Research on the effect of the size of inquiry-based learning models on the ability of student profiles can provide a deeper understanding of the impact of this learning method on various levels of education. For example, at the basic education level, research can show how the application of inquiry-based learning models thoroughly in various

subjects can improve the understanding and implementation of Pancasila values in students who are still in the character building stage (Jayadiputra, 2023). The results of this study can be the basis for the development of a more inclusive curriculum and student-centered learning at the primary education level.

Furthermore, research at the secondary or higher education level can highlight how inquiry-based learning models can be integrated into more specific and complex subjects, while still strengthening the understanding and practice of Pancasila values (Rozhana et a., 2023). The results of this study can provide empirical evidence on the role of innovative learning methods in shaping the character of students at higher education levels, as well as producing graduates who not only excel academically but also have high moral and social awareness in accordance with the values of Pancasila. Thus, this research can be a foundation for the development of more adaptive and sustainable learning strategies at various levels of education to achieve the goal of character building in accordance with the spirit of Pancasila.

Conclusion

From the results of this study, it can be concluded that the inquiry-based learning model has a significant influence on the ability of the student profile of Pancasila students with an average effect size value of 0.806 with high effect size criteria. This study provides important information for teachers to implement inquiry-based learning models on the ability of student profiles of Pancasila students. With an inqyiry-based learning approach, students not only gain knowledge about the values of Pancasila, but also develop critical thinking, communication, and cooperation skills. The results showed that the use of inquiry-based learning models in Pancasila learning can increase students' understanding of the meaning and application of Pancasila values in everyday life. In addition, students are also better able to consider moral and ethical perspectives in dealing with various situations. Thus, the implementation of the IBL model in Pancasila learning can make a positive contribution to the development of students' character and personality.

Bibliography

Abdul Rahman, Ilwandri, Revi Gina Gunawan, Yayat Suharyat, Ringgo Putra, A. S. (2023). Effectiveness of Problem-Based Learning Model in Science Learning: A Meta- Analysis Study. *JUARA : Jurnal Olahraga*, *8*(2), 713–726.

Amri, M. &. (2023). Pengembangan Media Pembelajaran Sma Khadijah Surabaya . *Jurnal Pendidikan Bahasa Mandarin UNESA*, *1*(2), 1–7.

Bakirci, H., Kirici, M. G., & Kara, Y. (2022). The Effectiveness of STEM-Supported Inquiry-Based Learning Approach on Conceptual Understanding of 7 th Graders : Force and Energy Unit. *Journal of Science Learning*, *5*, 1–17. https://doi.org/10.17509/jsl.v5i3.43647

Bekteshi, E., & Avdiu, E. (2023). Journal of Technology and Science Education THE CHALLENGES OF CONDUCTING ONLINE INQUIRY-BASED. *Journal of Technology and Science Education*, *13*(1), 92–103.

Chamdani et al. (2022). META-ANALYSIS STUDY : The Relationship Between Reflective

Thinking And Learning Achievement. *ERIES Journal*, *15*(3), 181–188.

Cohen, L., Manion, L., Lecturer, P., Morrison, K., & Lecturer, S. (2007). *Research Methods in Education*. Routledge is an imprint of the Taylor & Francis Group, an informa business.

Daniel, A., Rubio, J., María, I., & Conesa, G. (2022). Journal Of Language And Linguistic Studies Inquiry-Based Learning In Primary Education. *OURNAL OF LANGUAGE AND LINGUISTIC STUDIES*, *18*(2), 623–647.

Elfira, I., & Santosa, T. A. (2023). Literature Study : Utilization of the PjBL Model in Science Education to Improve Creativity and Critical Thinking Skills. *Jurnal Penelitian Pendidikan IPA*, *9*(1), 133–143. https://doi.org/10.29303/jppipa.v9i1.2555

Hasan, R., Lukitasari, M., & Utami, S. (2019). JPBI (Jurnal Pendidikan Biologi Indonesia) The activeness , critical , and creative thinking skills of students in the lesson study-based inquiry and cooperative learning. *JPBI (Jurnal Pendidikan Biologi Indonesia)*, *5*(1), 77–84.

Jayadiputra, E. (2023). The Pancasila and Civic Education curriculum model at 21st century. *Urnal Civics: Media Kajian Kewarganegaraan*, *20*(1), 65–74.

Juandi, D., Kusumah, Y. S., Tamur, M., Perbowo, K. S., & Tanu, T. (2021). Heliyon A meta-analysis of Geogebra software decade of assisted mathematics learning : what to learn and where to go ? *Heliyon*, *7*(October 2020), e06953. https://doi.org/10.1016/j.heliyon.2021.e06953

Kardiana Metha Rozhana*, Firsta Bagus Sugiharto, Muhammad Fauzy Emqy, A. A. W. (2023). roject implementation of strengthening "Profil Pelajar Pancasila" (P5) as a value of life in elementary schools. *Jurnal Bidang Pendidikan Dasar*, *7*(2), 170–180.

Khoiri, A. (2019). Meta Analysis Study : Effect of STEM (Science Technology Engineering and Mathematic) towards Achievement. *Formatif: Jurnal Ilmiah Pendidikan MIPA*, *9*(1), 71–82.

Khoirudin, D. A., Jamaludin, U., & Bahrudin, F. A. (2023). Pengaruh Penerapan Model Pembelajaran Inquiry Terhadap Keterampilan Berpikir Kritis Siswa Pada Mata Pelajaran Pendidikan Pancasila dan Kewarganegaraan. *Jurnal Pendidikan Kewarganegaraan*, *13*(1), 1–12.

Krisna, I. M., Payana, D., Riastini, P. N., & Margunayasa, I. G. (2023). The Resilience of Elementary School Students Through a Project to Strengthen The Pancasila Student Profile. *Jurnal Pedagogi Dan Pembelajaran*, *6*(2), 197–202.

Laila, R. N., & Assunniyah, N. (2022). Implementation of Pancasila Student Profile in the For High School in Sragen Regency Sekolah. *AL HIKMAH: JOURNAL OF EDUCATION*, *3*(1), 135–148.

Leva, M., & Safitri, O. (2023). Teacher ' s Perception of the Profile of Pancasila Students in Elementary School. *Jurnal Inovasi Pendidikan Dan Pembelajaran Sekolah Dasa*, *7*, 75–88.

Li Zhao, Wei He, Xiaohong Liu, Kai-Hsin Tai, J.-C. H., & Introduction. (2020). Exploring The Effects On Fifth Graders ' Concept Achievement And Scientific Epistemological Beliefs : Applying The Prediction- Observation-Explanation Inquiry-Based Learning Model In Science Education. *Journal of Baltic Science Education*, *20*(4), 664–676.

Manishimwe, H., & Shivoga, W. A. (2022). EFFECT OF INQUIRY-BASED LEARNING ON STUDENTS ' ATTITUDE TOWARDS LEARNING BIOLOGY AT UPPER SECONDARY SCHOOLS IN. *Journal of Baltic Science Education*, *21*(5), 862–874.

Muqit et al. (2023). THE FORMATION OF PANCASILA STUDENT PROFILE IN

STUDENT INDEPENDENT DIMENSIONS THROUGH. *Edupedia: Jurnal Studi Pendidikan Dan Pedagogi Islam*, *8*(1), 89–98. https://doi.org/10.35316/edupedia.v8i1.3450

Niken Viorezaa, b, *, Nana Supriatnac, K. A. H. (2024). The effect of utilizing Betawi local food in the implementation of Pancasila student profile strengthening project on increasing ecoliteracy of elementary school students The effect of utilizing Betawi local food in the implementation of Pancasila student. *Kasetsart Journal of Social Sciences*, *November 2023*. https://doi.org/10.34044/j.kjss.2023.44.4.16

Nurtamam, M. E., Santosa, T. A., Aprilisia, S., Rahman, A., & Suharyat, Y. (2023). Meta-analysis : The Effectiveness of Iot-Based Flipped Learning to Improve Students ' Problem Solving Abilities. *Edumaspul :Jurnal Pendidikan*, *7*(1), 1491–1501.

Oktarina, K., Suhaimi, S., Santosa, T. A., & ... (2021). Meta-Analysis: The Effectiveness of Using Blended Learning on Multiple Intelligences and Student Character Education During the Covid-19 Period. *... Journal of Education ...*, *4*(3), 184–192. http://journal.ummat.ac.id/index.php/IJECA/article/view/5505%0Ahttps://journal.ummat.ac.id/index.php/IJECA/article/download/5505/pdf

Permatasari, B. D., & Info, A. (2019). The influence of problem based learning towards social science learning outcomes viewed from learning interest. *International Journal of Evaluation and Research in Education (IJERE)*, *8*(1), 39–46. https://doi.org/10.11591/ijere.v8.i1.pp39-46

Puji, D., Brata, N., Utomo, E. S., & Sukardi, S. (2022). The Analysis of Students ' Attitudes Construction Based on Pancasila Profile to be Integrated with Teacher ' s Lesson Plan in Junior High School in Pandemic Era. *Advances in Social Science, Education and Humanities Research*, *630*(Icetech 2021), 313–320.

Puspitasari, L., Amri, M., & Sodiq, S. (2021). The Problems of Performance Assessment of Japanese Language Subjects Based on E-Learning Using E-lingo Platform. *International Joint Conference on Arts and Humanities*, *618*(Ijcah), 143–147.

Rahman, A. A., Santosa, T. A., Nurtamam, M. E., & Widoyo, H. (2023). Meta-Analysis : The Effect of Ethnoscience-Based Project Based Learning Model on Students ' Critical Thinking Skills. *Jurnal Penelitian Pendidikan IPA*, *9*(9), 611–620. https://doi.org/10.29303/jppipa.v9i9.4871

Santosa, T. A., Razak, A., Arsih, F., & Sepriyani, E. M. (2021). Meta-Analysis : Science Learning Based on Local Wisdom Against Preserving School Environments During the Covid-19 Pandemic. *Journal of Biology Education*, *10*(2), 244–251.

Santosa, T. A., Razak, A., Lufri, L., Zulyusri, Z., Fradila, E., & Arsih, F. (2021). Meta-Analisis: Pengaruh Bahan Ajar Berbasis Pendekatan STEM Pada Pembelajaran Ekologi. *Journal of Digital Learning and Education*, *1*(01), 1–9. https://doi.org/10.52562/jdle.v1i01.24

Saphira, H. V. (2022). Integrating Local Wisdom-Based Learning To Preparing The Pancasila Students ' P rofile , Yes or No ? *International Journal of Current Educational Research*, *1*(1), 18–35.

Silmi Hidayatullah*, R. W. (2022). Meta-analysis of the influence of 21st century high school students ' skills in learning physics using a guided inquiry model Meta-analysis of the influence of 21st century high school students ' skills in learning physics using a guided inquiry model. *Journal of Physics: Conference Series*, *2309 (2022*, 1–8. https://doi.org/10.1088/1742-6596/2309/1/012057

Sonsun, P., Hemtasin, C., & Thongsuk, T. (2023). Development of Science Learning Activities

Using Inquiry-Based Learning Management to Improve the Academic Achievement of Secondary School Students. *Journal of Education and Learning*, *12*(3), 86–92. https://doi.org/10.5539/jel.v12n3p86

Sreejun, S., & Chatwattana, P. (2023). The Imagineering Learning Model with Inquiry-Based Learning via Augmented Reality to Enhance Creative Products and Digital Empathy. *Journal of Education and Learning*, *12*(2), 52–59. https://doi.org/10.5539/jel.v12n2p52

Suharyat, Y., Santosa, T. A., & Satria, E. (2023). The Effectiveness of STEM-Based Learning in Teaching 21 st Century Skills in Generation Z Student in Science Learning : A. *Jurnal Penelitian Pendidikan IPA*, *9*(1), 160–166. https://doi.org/10.29303/jppipa.v9i1.2517

Suparman, Juandi, D., & Tamur, M. (2021). Review of problem-based learning trends in 2010-2020: A meta-analysis study of the effect of problem-based learning in enhancing mathematical problem-solving skills of Indonesian students. *Journal of Physics: Conference Series*, *1722*(1). https://doi.org/10.1088/1742-6596/1722/1/012103

Suryono, W., Haryanto, B. B., Santosa, T. A., Suharyat, Y., & Sappaile, B. I. (2023). The Effect of The Blended Learning Model on Student Critical Thinking Skill : Meta-analysis. *Edumaspul - Jurnal Pendidikan*, *7*(1), 1386–1397.

Susanti, A., Darmansyah, A., Tias, D. N., & Hidayat, R. (2023). The Implementation of Project for Strengthening the Profile of Pancasila Students in the Independent Curriculum for Elementary School Students. *International Journal of Education & Curriculum Application*, *6*(2), 113–122.

Syofyan, H., Nugroho, O. F., Rosyid, A., & Putra, S. D. (2022). Analysis of Dimensions of Pancasila Student Profiles in Science Learning for PGSD Students. *INDONESIAN JOURNAL OF EDUCATIONAL RESEARCH AND REVIEW*, *5*(3), 514–523.

Utari, D., & Afendi, A. R. (2022). Implementation of Pancasila Student Profile in Elementary School Education with Project-Based Learning Approach. *EduLine: Journal of Education and Learning Innovation*, *2*(4), 1–9.

Windyarani, S. (2020). Jurnal Utile Pengaruh Model Inquiry Based Learning Terhadap Kemampuan Problem Solving Siswa Madrasah Aliyah Negeri Kelas X Pada Materi Keanekaragaman Hayati siswa memiliki memberi respon , menyeleksi informasi dengan problem solving dapat dijadikan siswa . *Jurnal Utile*, *VI*, 42–53.

Wumu, A., & Buhungo, T. J. (2023). The Effectiveness of Problem-Based Learning Model Assisted by Canva-Oriented Pancasila Student Profiles to Improve Scientific Literacy. *Jurnal Penelitian Pendidikan IPA*, *9*(8), 5892–5898. https://doi.org/10.29303/jppipa.v9i8.4022

Yanzi et al. (2022). Jurnal Pendidikan Progresif Implementation of the Pancasila Student Profile Strengthening Project in. *Jurnal Pendidikan Progresif*, *12*(3), 1423–1432. https://doi.org/10.23960/jpp.v12.i3.202232

Yıldız, E., & Demirci, N. (2021). The Effects of Inquiry- Based Learning on Students ' Learner Autonomy and Conceptions of Learning. *Journal of Turkish Science Education*, *18*(3), 401–420.

Zulyusri, Tomi Apra Santosa, Festiyed, Yerimadesi, Yohandri, Abdul Razak, S. (2023). Effectiveness of STEM Learning Based on Design Thiking in Improving Critical Thinking Skills in Science Learning : A. *Jurnal Penelitian Pendidikan IPA*, *9*(6), 112–119. https://doi.org/10.29303/jppipa.v9i6.3709