

The Influence of Early Childhood Education on Learning Outcomes and the Pancasila Student Profile Strengthening Project

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Abstrak

Early childhood education (PAUD) provides children with the opportunity to learn and play in a safe environment. This study aims to investigate the influence of early childhood education on learning outcomes and the Pancasila Student Profile Strengthening Project (P5) at SDN 03 Pondok Kacang Barat, South Tangerang. Using a quantitative approach, this study compared two groups: 39 students who went through early childhood education and 39 students who did not. The data shows that PAUD students have an average learning outcome of 705.26, while non-PAUD students reach 676.13. For P5 scores, the average PAUD students are 10.54, while non-PAUD students are 8.54. The results of the analysis showed a significant influence of early childhood education on learning outcomes (sig 0.000 < 0.05) and P5 (sig 0.000 < 0.05). Recommendations for early childhood education institutions include improving the quality of education through the development of learning media, better teacher training, and the use of innovative learning methods.

Keywords: Early Childhood Education, Learning Outcomes, Pancasila Learner Profile Strengthening Project

1 INTRODUCTION

Early childhood education (ECE) is defined as the developmental period of a human being from conception (early pregnancy) to the transition into the early primary school years (usually ending at the age of 8 or 9). This definition is reflected in the *Convention on the Rights of the Child*, literature on early childhood, and government policies. There are sensitive stages in child development during early childhood. ECE is crucial for building the foundation of learning, particularly for children who are socially or economically disadvantaged. Research shows that participation in ECE programs enhances cognitive and emotional development and provides a competitive advantage in adulthood (INEE, 2023). Moreover, these programs help reduce social disparities and contribute to achieving the Sustainable Development Goals (SDGs).

During the prenatal period, from conception to pregnancy, maternal health and nutrition significantly determine fetal development (Suryana, 2011; Rahayu, et.al., 2024). The Pancasila Student Profile Strengthening Project is a governmental effort, especially in the education sector, to create students embodying the Pancasila profile—loving

Indonesia, appreciating religious, ethnic, and racial diversity, and upholding unity and integrity (Desty Citra Sar, 2023). The misalignment of science and technology advancements with Indonesia's national identity has led to the neglect of humanitarian values and the destruction of the social fabric due to the erosion of plurality and ingrained social values (Mansyur, 2020).

The Pancasila Student Profile Strengthening Project, implemented at all educational levels, including ECE, has become part of Indonesia's educational vision as outlined in the Ministry of Education and Culture's strategic documents. Values such as teamwork, critical thinking, and creativity are introduced through play integrated with literacy and numeracy learning. Safe childbirth, infant nutrition, safety and health, cognitive stimulation, nutritious food, secure exploration environments for toddlers, and successful transitions from home (e.g., to playgroups or preschools) are essential aspects of ECE that prepare children for primary school.

Global organizations like UNICEF and WHO emphasize that early childhood is a critical period for developing life skills through play-based education that supports holistic learning (UNICEF, 2023). In other words, early childhood development is a crucial period for cultivating skills that shape every element of a person's life (Hadiny et.al., 2023; Ernawati, et.al., 2023; Mansoer, Z., & Susliah, E., 2024; Nadar & Pujianti, 2024; Syaikh et.al., 2022).

ECE helps children build a solid foundation in various aspects of their development. With good preparation through ECE, children gain an advantage in facing the challenges and demands of formal schooling. The Pancasila Student Profile Strengthening Project aligns with the Vision and Mission of the Ministry of Education and Culture as stipulated in Regulation No. 22 of 2020 on the Strategic Plan of the Ministry of Education and Culture for 2020-2024. Implementing the project aims to create a golden generation through several stages (Ghidza Farhana and Nur Cholimah, 2024).

Pancasila Students embody lifelong Indonesian learners with global competencies and behaviors aligned with Pancasila values. UNESCO (2023) asserts that ECE policies should focus on providing access to quality education, enhancing teacher competencies, and offering safe and supportive facilities for interactive learning. This aligns with the SDGs, particularly Goal 4 on quality education. Pancasila students have six main characteristics: faith in God and morality; global diversity; teamwork; independence; critical thinking; and creativity (Utami, et.al, 2024; Wulan, 2024; . These characteristics can be detailed as follows: Faith and morality: Developing spiritual and moral values. Students are encouraged to understand and apply religious principles daily while upholding moral values in social interactions (Kemendikbudristek, 2021). Global diversity: Appreciating cultural diversity and fostering positive relationships with individuals from different backgrounds, emphasizing cultural awareness and commitment to global harmony (UNESCO, 2023). Teamwork: Highlighting the importance of cooperation, solidarity, and shared responsibility in addressing community challenges (Kemendikbudristek, 2022). Independence: Emphasizing students' ability to take responsibility for their decisions, learn from experiences, and demonstrate resilience in facing difficulties (OECD, 2021). Critical thinking: Analyzing information, making data-driven decisions, and solving problems innovatively (Kemendikbudristek, 2023). Creativity: Generating new ideas, innovating, and appreciating beauty and art in various life contexts (UNICEF, 2023).

The research objective is to determine the impact of ECE participation and non-participation on learning outcomes and the Pancasila Student Profile Strengthening Project (P5) at SDN 03 Pondok Kacang Barat Elementary School, South Tangerang. This research uses a quantitative approach with a non-experimental method, often called *ex post facto* research. In this study, the independent variable cannot be manipulated or controlled by the researcher as the events have already occurred. Accordingly, the test of differences between two means is used to test hypotheses aimed at identifying average differences between two groups based on specific criteria variables.

2 RESEARCH METHODS

The research employed a quantitative approach. This study did not apply any treatment or intervention, as it followed an ex post facto design. In such a design, the independent variable is not manipulated or controlled by the researcher since the events have already occurred. Hypothesis testing was conducted using the test of differences between two mean parameters. This test aims to identify differences in the mean of the criterion variable between two groups or groups that can be divided into two categories.

To test the hypothesis regarding mean parameter differences between two groups, multivariate analysis of variance (MANOVA) can be used. MANOVA is an analytical technique that measures differences between two or more metric variables while considering categorical variables as independent variables. It is often used to examine mean differences in multivariate data and provides deeper insights into the relationships among variables.

The research sample consisted of 78 students from SDN Pondok Kacang Timur 03, South Tangerang, with 39 students who had attended early childhood education (ECE) and 39 who had not. MANOVA analysis can offer insights into whether the differences identified between the groups were influenced by early childhood education experiences.

3 RESULT AND DISCUSSION

The presentation sequence includes the results of data processing in the form of data descriptions, testing data analysis requirements, and testing research hypotheses. At the end of the chapter, there is an explanation of the discussion of the research results and also the limitations of the research.

3.1 Data Description

Table 1 Data on Student Learning Outcomes Through Early Childhood and Not Through Early Childhood Education

		Hasil Belajar Paud	Hasil Belajar Non Paud
N	Valid	39	39
	Missing	0	0
Mean		705,26	676,13
Median		706,00	684,00
Mode		727	684
Std. Deviation		30,258	41,041
Sum		27505	26369

Based on Table 1, the results of processing data on student learning outcomes through PAUD obtained from 39 students were obtained as follows: average 705.26, median score 706.00, mode score 727, and standard deviation of 30.258. Meanwhile, the learning outcomes of students who did not go through PAUD were obtained as follows: average 676.13, median score 684.00, mode value 684, and standard deviation 41.041.

Table 2 Data of the Pancasila Student Profile Strengthening Project (P5) Students Through Early Childhood and Not Through Early Childhood Education

		Profil Pancasila Paud	Profil Pancasila NonPaud
N	Valid	39	39
	Missing	0	0
Mean		10,54	8,54
Median		11,00	9,00
Mode		12	9
Sum		411	333

3.1.1 Normality Test Results

The results of the normality test conducted by the researcher using the Skewness test were known that the distribution of variable data on early childhood learning outcomes and non-early childhood learning outcomes had a value between (2 then the data was normally distributed. The results of the normality test conducted by the researcher using the Skewness test are known that the distribution of variable data for the Pancasila Profile of PAUD and the Profile of Pancasila Non-PAUD has a value between (2 then the data is normally distributed.

3.1.2 Homogeneity Test Results

It is known that the Sig. value from Box's Test of Equality of Covariance Matrices shows a value of $0.020 > 0.01$, so it can be concluded that the variance of P5 data in both PAUD and non-PAUD groups comes from a homogeneous population.

3.1.3 Hypothesis Test Results

The hypothesis testing in this study was carried out after knowing that the data had been distributed normally. The hypothesis tested was the influence of the learning outcomes of students who went through PAUD and did not go through PAUD and the Values of the Pancasila Student Profile Strengthening Project (P5) of students who went through PAUD and those who did not go through PAUD. Based on the results of the calculation, the Sig values for the pillai's trace, willks' lambda, hotelling's trace, and roy's largest root test were $0.000 < 0.05$, so it can be concluded that there is an influence of early childhood education on learning outcomes and the Pancasila student profile strengthening project (P5). Based on the results of the calculation of the sig value between learning outcomes and early childhood education = $0.000 < 0.05$, it can be concluded that there is a significant influence of early childhood education on learning outcomes. With the average score of learning outcomes of students who went through early childhood education was 705.26 and the average score of students who did not go through early childhood education was 676.13. Based on the results of the calculation of the sig value between the Pancasila Student Profile Strengthening Project (P5) and early childhood education = $0.000 < 0.05$, it can be concluded that there is a significant influence of early childhood education on the Pancasila Student Profile Strengthening Project (P5). With the average value of the Pancasila Student Profile Strengthening Project (P5) that went through early childhood education was 10.54 and the average value of the Pancasila Student Profile Strengthening Project (P5) that did not go through early childhood education was 8.54.

3.2 Discussion

The design of the Pancasila student profile strengthening project is a planning process carried out before the implementation of the project. There are five stages in designing the Pancasila student profile strengthening project, including forming a facilitator team, identifying the readiness level of the educational unit, determining the dimensions,

themes, and time allocation, developing modules, and designing a strategy for reporting the results of the Pancasila student profile strengthening project. The design of the Pancasila student profile strengthening project at Insan Gemilang Early Childhood Education (PAUD) consists of several stages. First, the formation of the Pancasila student profile strengthening project team is carried out through a meeting at the beginning of the semester. The school principal determines the project coordinator, and then the principal and coordinator form the facilitator team. The number of team members is based on the number of students.

This consideration aligns with the criteria for selecting teachers outlined in the Pancasila student profile strengthening project guidelines. The project coordinator for the Pancasila student profile strengthening project at Insan Gemilang PAUD consists of two coordinators: one for class A and one for class B. The coordinators' tasks include coordinating, designing with facilitators, motivating, and overseeing the implementation of the Pancasila student profile strengthening project. The coordinators are chosen based on their understanding and experience in developing and managing projects. The selection of coordinators is in accordance with their experience in project management, ability to develop project-based learning, and leadership skills. The facilitators of the Pancasila student profile strengthening project at Insan Gemilang PAUD play a role in assisting students in their involvement in creating a work.

Next, identifying the readiness stage for implementing the Pancasila student profile strengthening project. The identification of the educational institution's readiness is based on the institution's ability to implement project-based learning. This identification aims to categorize schools into three stages: the initial stage, the developing stage, and the advanced stage. Based on the readiness stage identification, Insan Gemilang PAUD (Early Childhood Education) is categorized in the advanced stage because project-based learning has become a habit at the school, and all educators understand the concept of project-based learning. According to an interview with the project coordinator, the school has established partnerships with external parties to expand the project's impact.

Next, determining the dimensions, themes, and time allocation for the Pancasila student profile strengthening project. The Pancasila student profile project consists of six dimensions of competence: 1) faith, devotion to God Almighty, and noble character; 2) global diversity; 3) mutual cooperation; 4) creativity; 5) critical thinking; and 6) independence. However, Insan Gemilang PAUD only focuses on developing three dimensions: faith, devotion to God Almighty, mutual cooperation, and creativity. This aligns with the Pancasila student profile project guidelines, which recommend selecting 2-3 dimensions that are most relevant to ensure that the project goals are targeted and focused (Kemendikbudristek, 2022). The selection of dimensions at Insan Gemilang PAUD refers to the school's vision and mission, which is to produce students who excel in achievements based on faith and devotion. Excellence in achievements aligns with the dimensions of creativity and critical thinking, while faith and devotion align with the dimensions of faith, devotion to God Almighty, and noble character.

Then, the selection of themes at Insan Gemilang PAUD is adapted to the surrounding environment. The theme "I Love the Earth" focuses on gardening with the use of recycled materials. The emphasis of using recycled materials in this project is to introduce students to current environmental issues, such as the waste emergency. Through this project, students can explore creative solutions that they can implement, while also nurturing their care for nature as a form of love for the environment Creation of God Almighty. This aligns with the theory that the selection of themes can be based on several factors, one of which is choosing a theme that is in line with current issues or topics that are being widely discussed. The time allocation for the Pancasila student profile strengthening project at Insan Gemilang PAUD Preschool is carried out over 2 weeks, with the project activities held twice during the academic year.

Fourth, developing project modules. The development of the Pancasila student profile strengthening project module at Insan Gemilang PAUD Preschool is done collaboratively by the project team by modifying the modules provided, then adjusting them to meet the

goals, students' needs, and the educational institution's conditions. The first stage of module modification involves identifying suitable modules from the PMM platform, then evaluating and adjusting the module to match the school profile, goals, and students' needs. The second stage of the modification process involves designing the project module by making necessary adjustments to ensure alignment with the goals, needs, and context of the school. This includes modifying specific aspects of the project topic, objectives, activities, and assessments. The final stage of the worksheet is alignment, which ensures coherence between the issues or themes discussed, sub-elements (project profile objectives), and the conditions and needs of the students.

Fifth, designing a strategy for reporting project results. Formative assessment is conducted at each activity, while summative assessment is carried out at the end of the project. The assessments used at Insan Gemilang PAUD Preschool include formative and summative assessments. Formative assessment is conducted at each activity. The assessment focuses on the development of students' character dimensions. Summative assessment is conducted at the end of the project. The assessment covers the character dimensions achieved by students based on indicators, assignment documents, and final products. The assessment tools used include journals and portfolios.

Second, identifying the readiness stage for implementing the Pancasila student profile strengthening project. The identification of the readiness of the educational institution is based on the institution's ability to implement project-based learning. This identification aims to categorize schools into three stages: the initial stage, the developing stage, and the advanced stage. Children who attend Early Childhood Education (ECE) typically have a strong foundation in fine motor, social, and emotional development. This aligns with research indicating that positive social and emotional development in early childhood is crucial for future learning abilities. Children who receive positive social and emotional stimulation are generally better prepared psychologically to face challenges in higher education environments. Fine motor skills and emotional development cultivated early enable children to interact more effectively with their social environment. Consequently, ECE provides a solid foundation for children to learn more effectively in subsequent educational stages.

Additionally, ECE often introduces fun and creative learning methods, motivating children to enjoy and develop a positive attitude toward learning. This foundation may lead to better learning outcomes for ECE participants. However, this does not imply that children who do not attend ECE cannot succeed, as success largely depends on individual effort and learning attitudes.

Early childhood education frequently adopts a holistic approach, emphasizing character building and moral values, including those encapsulated in Pancasila. Children who undergo ECE are often more influenced by environments that support their social, emotional, and cognitive development. These holistic programs not only focus on cognitive growth but also integrate character education and moral values, such as Pancasila principles.

Studies suggest that nature-based ECE can provide additional benefits for social and emotional development, enhancing social skills, self-regulation, and relationships with nature. This highlights the importance of a supportive environment in ECE in shaping children's character and social abilities, which contribute to their future educational success. ECE students tend to demonstrate stronger social skills, better communication abilities, and a deeper understanding of humanitarian and justice values. It is essential to recognize that the outcomes of the Pancasila Student Profile Strengthening Project are not solely determined by participation in ECE but also by factors such as family environment, formal education, and social experiences. Strengthening the Pancasila student profile requires collaboration among various stakeholders and comprehensive strategies to achieve optimal results. The statement, *"Early childhood education often provides a holistic approach to education, including character building and moral values, including Pancasila values,"* underscores the importance of ECE in promoting social, emotional, and cognitive development while introducing moral values reflected in

Pancasila. ECE integrates Pancasila principles through engaging activities such as traditional games and storytelling, fostering positive character development in children (BPIP, 2020; Febriyanti & Dewi, 2021).

4 CONCLUSION

The results of the hypothesis test of student learning outcome data through PAUD and not through PAUD have been carried out. The results of the statistical test obtained a tcal value of $3.588 > t \text{ table } 0.020$ and it was known that $p \text{ value} = 0.001 < 0.05$, this means that there is a significant difference in the average learning outcomes between PAUD and non-PAUD.

Based on the results of processing data on student learning outcomes through early childhood education obtained from 39 students, the following values were obtained: an average of 676.13, a median score of 684.00, a mode value of 9, and a standard deviation of 31.258.

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For the next researcher. Conduct research that involves more long-term observation of early childhood development to the advanced education stage. This can provide a deeper understanding of the relationship between early childhood education through early childhood education and not through early childhood education. For Early Childhood Education Institutions. Early childhood education institutions can focus on improving the quality of education provided to early childhood. This includes the development of learning media that is more in line with children's development, conducting increased teacher training, and the use of innovative and modern learning methods. For Government Agencies. Continuous monitoring and evaluation where government agencies continuously monitor and evaluate early childhood education programs to ensure their effectiveness. Accurate and up-to-date data can be the basis for better decision-making in improving the quality of early childhood education.

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