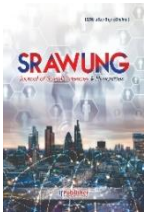

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Webbed Model Integrated Learning on Problem Solving and Self-Regulation Skills for PAUD Student in Mojokerto

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ABSTRACT

Early Childhood Education or commonly called PAUD is one of the formal educational institutions that presented at the pre-school level or before students register in kindergarten. This education presents activities that provide more and intense touch and affection, generally because at this time children have entered the "Golden Age" which has need for direct guidance by adults with basic activities through playing for students' character development and learning motivation for children optimal growth. Webbed integrated learning model is one of the learning models developed at Pacet Mojokerto Kindergarten. This study shows how the influence of learning through conventional and integrated learning is associated with problem solving and self-regulation for kindergarten students at Pacet Mojokerto Kindergarten to 40 kindergarten students using quantitative methods with the assistance of SPSS type 22 Multi Variate analysis of variance (manova) to determine the effect of webbed model integrated learning on children's problem solving and self-regulation skills. From the research result, it was concluded that the Webbed Model Integrated Learning had a significant effect on increasing problem-solving and self- regulation abilities in early childhood education at the kindergarten level aged 5-6 years in the Pacet sub-district, Mojokerto.

Keywords: *Early Childhood Education, Integrated Learning, Webbed*

INTRODUCTION

Early Childhood Education (PAUD) is a formal educational institution for pre-school children, designed to engage students before they enter kindergarten. This education focuses on activities that provide nurturing and affection, particularly because children at this stage are in their "Golden Age," where direct adult guidance through play is crucial for character development and optimal growth.

PAUD plays a vital role in preparing children for more structured learning environments. According to the National Education Standards Regulation No. 20 of 2003, Article 1, paragraph 14, children from birth to age six require educational stimuli to develop their physical and spiritual abilities optimally before advancing to higher education levels.

Before entering elementary school, PAUD programs effectively prepare children for more complex learning materials. One such curriculum is the integrated curriculum, which unites various subjects into a cohesive learning experience. Since PAUD students generally have holistic knowledge and cannot learn new concepts in isolation, integration becomes the foundation of the curriculum, ensuring children understand age-appropriate knowledge.

In Pacet District, Mojokerto Regency, many kindergarten students exhibit low self-regulation and problem-solving skills. To address this, using an integrated learning approach through the webbed model can enhance self-regulation and problem-solving abilities, especially for kindergarten group B students.

The Webbed model integrates various teaching materials into one cohesive theme, resembling a spider web. This approach encourages active learning, where students voluntarily seek and explore knowledge holistically. The model is recommended for various educational levels and aims to engage students in interconnected learning activities that promote exploration (Rosnawati, 2021; Jubaidah St., 2021).

Problem-solving is a process that involves changing circumstances and requires an unsystematic approach. Dostal (2015) notes that problem-solving is influenced by one's initial knowledge and emotional aspects. Successful problem-solving not only involves cognitive effort but also requires motivation and emotional regulation. Problem-solving is a personal endeavor, shaped by individual decisions during the process (Utami, L. O., Utami, I. S., & Sarumpaet, 2017).

Self-regulation refers to an individual’s ability to control thoughts, emotions, and behaviors to achieve specific goals (Schun, 2010). In early childhood education, fostering self-regulation is essential, as it helps children direct their learning and behavior. Self-regulated learning involves cognitive,

metacognitive, behavioral, motivational, and emotional aspects, which allow students to manage their learning effectively (Panadero, 2017).

Teachers play a critical role in guiding students through effective learning processes. They must understand the learning environment and apply suitable methods based on students' needs and characteristics to achieve educational goals. Research has shown that students with good self-regulation tend to be more successful in learning (Dila, 2019).

The integrated curriculum connects various concepts across subjects, providing a holistic learning experience that helps develop children's cognitive, affective, psychomotor, and spiritual aspects. This learning model encourages cooperation, creativity, and collaboration, making the learning process meaningful and engaging for children (Aulina, 2018).

Integrated learning links concepts from different subjects, making the learning process both practical and theoretical. It involves collaboration between teachers and students, fostering a more connected and comprehensive understanding (Puspita, 2020). By incorporating various subjects into one theme, integrated learning supports students' development and creates a meaningful learning experience (Lestari, 2020; Bahar Herwina et al., 2017).

In conclusion, integrated learning focuses on themes that bridge multiple subjects, fostering a deeper understanding of related concepts. This approach improves the quality of learning by connecting different fields of study, which enhances skills, attitudes, and social understanding (Fitra, 2020; Nurkolis & Muhdi, 2020). The webbed learning model in this research aims to motivate students through engaging, fun activities, improving both self-regulation and problem-solving skills. This model provides students with a holistic learning experience, motivating them to actively participate and develop essential skills for their future education.

RESEARCH METHODOLOGY

This study employs a quantitative method using SPSS version 22 and Multi-Variate Analysis of Variance (MANOVA) to examine the effect of integrated learning with the webbed model on students' problem-solving skills and self-regulation. According to Creswell (2014), a quantitative approach involves analyzing an idea by establishing specific assumptions and using data collection to either support or challenge these assumptions. The research subjects consisted of 40 children, aged 5 to 6 years, at Pacet Mojokerto Kindergarten.

RESULT AND DISCUSSION

The research conducted by Bahar Herwina et al. (2017) demonstrates that thematic learning based on al-Asma' Al-Husna provides students with opportunities to draw conclusions from various names of Allah associated with

specific themes. This allows them to explore and develop the phenomena they experience, and solve problems through multiple factors across different aspects. Furthermore, an integrated curriculum makes the learning process relevant and contextual, enabling students to actively participate in various dimensions, including physical, social, emotional, and cognitive aspects. The research conducted at TK Pacet Mojokerto yielded the following results:

Table 1. Descriptive Statistics

	MODEL	Mean	Std. Deviation	N
Problem solving	ONLINE_LEARNING	73,42	8,286	40
	KONVENSIONAL	65,43	6,377	40
	Total	69,43	8,377	80
Self-regulation	ONLINE_LEARNING	67,52	5,697	40
	KONVENSIONAL	67,57	5,728	40
	Total	67,55	5,677	80

Source: Processed Data by Researchers

Based on the table above, the average online learning value for 40 students is 73.42, while the conventional learning model has an average of 65.43. In terms of self-regulation, the Webbed integrated learning model shows an average of 67.52, compared to 67.57 for the conventional learning model.

Table 2. Box's Test of Equality of Covariance Matrices[a]

Box's M	3,682
F	1,193
df1	3
df2	1095120,000
Sig.	,311

Source: Processed Data by Researchers

The above multivariate test will determine whether the integrated learning of the Webbed model simultaneously affects problem-solving skills and self-regulation.

Table 3. Levene's Test of Equality of Error Variances

	F	df1	df2	Sig.
Problem Solving	4,520	1	78	,037
Self-regulation	,000	1	78	,994

Tests the null hypothesis that the error variance of the dependent variable is equal across groups.

a. Design: Intercept + MODEL

Source: Processed Data by Researchers

The findings of Filgona (2020) highlight the benefits of involving students with diverse abilities in learning, as well as the advantages of student-initiated learning based on themes. One key benefit is the increased motivation of students to participate actively in the teaching and learning process. Puspita (2020) demonstrates that the integration of thematic learning with the webbed curriculum model significantly enhances students' reading comprehension skills.

Several studies have shown that learning through the webbed model, involving various activities, positively impacts early childhood development. By employing the webbed learning model in this research, it is hoped to improve problem-solving and self-regulation skills in early childhood education. Children who possess high self-regulation and motivation tend to have better problem-solving abilities. Thongnoum suggests that students who develop effective study strategies are less likely to become discouraged, fostering strong self-regulation (Panadero, 2017). Furthermore, with the support of materials such as mathematics (Husna & Veronica, 2019), research is needed to explore motivational, self-regulation, and problem-solving skills in early childhood education through integrated learning with the webbed model.

From the above theory, it can be concluded that the webbed model in integrated learning combines various interrelated fields of development, making it suitable for classroom implementation.

Observations at kindergarten institutions in the Pacet sub-district of Mojokerto reveal that most teachers still use conventional learning methods, often focusing on student activity sheets. Additionally, the teaching and learning process is teacher-centered, and the activity sheets frequently do not align with the theme being studied. As a result, students tend to become bored and lose interest in learning due to the lack of engagement.

CONCLUSION

The research concluded that the Webbed Model Integrated Learning significantly improved problem-solving and self-regulation abilities in early childhood education at the kindergarten level (ages 5-6 years) in the Pacet sub-district, Mojokerto. Observations at kindergartens in this area revealed that the majority of teachers still use conventional teaching methods, primarily focusing on activities with student activity sheets. Additionally, the teaching and learning process remains teacher-centered. The activity sheets used are often not aligned with the studied theme, leading to student boredom and lack of interest due to their unengaging nature.

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