Ceria: Jurnal Program Studi Pendidikan Anak Usia Dini
Volume 14, Number 3, 2025 pages 687-699
P-ISSN: 2301-9905 E-ISSN: 2775-409X
Open Access: https://jurnal.umt.ac.id/index.php/ceria/index

The Effect of Fun Cooking (Blue Rice) Activities on the Intrapersonal Intelligence of Kindergarten B1 Children at Islam Al-Fatah Surabaya

Salisa Kanaya[1], Kartika Rinakit[2],Dhian Gowinda Luh Safitri [3]
[1,2,3] Universitas Negeri Surabaya, Surabaya, Indonesia
e-mail: [1*]salisa.21012@mhs.unesa.ac.id , [2]salisakanaya3876@gmail.com, [3]dhiansafitri@unesa.ac.id

ARTICLE INFO

Article history:
Received: June 21, 2025
Accepted: August 31, 2025
Available online on: Septermber 9, 2025

Keywords:
fun cooking; intrapersonal intelligence; early childhood; experimental research; innovative learning

ABSTRACT

This study aimed to determine the effect of Fun Cooking activities on the intrapersonal intelligence of children aged 5–6 years in class B1 at TK Islam Al-Fatah Surabaya. The research employed a pre-experimental design with a one-group pretest–posttest model. A total of 14 children were involved as research subjects. Data collection was conducted through a pretest, two treatment sessions using Fun Cooking (Blue Rice), and a posttest. The instrument used consisted of five items, all of which were declared valid and reliable with a Cronbach's Alpha value of 0.812. Data were analyzed using the Wilcoxon Signed Rank Test with SPSS version 21. The results showed significant differences between the pretest and posttest, as well as between the two treatment sessions, with Asymp. Sig. (2-tailed) < 0.05. These findings indicate that Fun Cooking activities are effective in improving the intrapersonal intelligence of early childhood and can be used as an

innovative learning alternative.

Introduction

Kindergarten education has two main objectives. The internal objective is to support children's growth and development toward maturity, while the instrumental objective is to prepare children for formal education. In general, several common problems encountered in children include physical-motor (related to physical development), intellectual (related to thinking ability), social (related to interaction with the environment), emotional (related to feelings), language (related to communication skills), and creativity (related to the ability to create) (Winarsih, 2021; Rahmat, 2021). These problems require special attention, considering that children at this age are still innocent and do not fully understand the meaning of mistakes (Saifana et al., 2021).

Every child has unique intelligence and may possess various types of intelligence. Each child has unique talents because every child exhibits different behaviors. They are usually rich in imagination, as their fantasy develops beyond what they observe (Chayanti & Setyowati, 2022).

Howard Gardner (in Legowo, 2024) proposed the theory of Multiple Intelligences, which divides intelligence into nine types: linguistic, logical-mathematical, kinesthetic, spatial, existential, naturalistic, musical, intrapersonal, and interpersonal. Each child's intelligence can be developed fully, but this research focused on intrapersonal intelligence (Peking et al., 2020).

Intrapersonal intelligence is the ability related to self-awareness and self-knowledge. It refers to the ability to understand oneself, which, although difficult to comprehend, is considered the most important among the nine intelligences. Internal aspects in building self-confidence include self-concept, self-esteem, physical appearance, and life experience (Hartina, 2019). If children are given an understanding of themselves from an early age, they will find it easier to determine the steps they will take in adulthood. This understanding includes recognizing their potential, emotions, and abilities, so they can develop a life direction that matches their personal character. This is in line with the view that early childhood is an excellent stage to prepare all skills—strength, cognition, mentality, and morality—while still respecting each individual's uniqueness as a human being in the learning process (Atfhal et al., 2022).

Early childhood development, especially at the kindergarten stage, is a very crucial period in the formation of character and intelligence. One important aspect of intelligence to be improved during this period is intrapersonal intelligence. Saroinsong et al. (2020) stated, *"The world of children is play, because play is an enjoyable activity for children. Playing is also a demand and necessity in early childhood education."* The form of enjoyable activities that children experience directly and can easily apply in their daily lives is important. Various educational models or methods are designed to develop children's independence, but it is crucial to remember that activities related to children's daily lives will

be more meaningful.

The development of children's independence is consistent with the research of Simatupang et al. (2021) on fostering independence in early childhood at school, which showed that cultivating independence through daily activities in TK Islam Al-Fajar Surabaya required the roles of teachers, principals, and administrative staff in providing examples both spontaneously and through habituation, as children are excellent imitators. Moreover, parents' role in instilling the value of independence at home is essential so that it runs optimally in harmony with the school environment.

Intrapersonal intelligence stimulated through daily school activities is highly beneficial for children. To stimulate intrapersonal intelligence, various learning methods have been developed. One of them is through block puzzle games, which can improve several indicators of intrapersonal intelligence, including children's ability to take responsibility and their ability to understand differences between themselves and others (Aulia et al., 2024).

The process of optimizing intrapersonal intelligence can be carried out through various learning methods by creating a positive classroom atmosphere so that the learning process runs in a structured, coordinated, effective, efficient, and enjoyable manner (Setyowati et al., 2024). One of the learning methods is Fun Cooking, a cooking activity designed in a fun way that actively involves children.

Fun Cooking provides children with the freedom to learn not only

about food and nutrition but also about fine motor skills, creativity, and social abilities. Research by Utami et al. (2023) shows that Fun Cooking influences the development of interpersonal intelligence in children aged 5–6 years. Furthermore, research conducted by Saifana et al. (2021) revealed that activities carried out in line with children's development can improve intrapersonal intelligence.

Methods

This study used a pre-experimental design with a one-group pretest–posttest model (Yadav & Kumari, 2020) to examine the effect of Fun Cooking activities on intrapersonal intelligence. The subjects were 14 children aged 5–6 years in class B1 of TK Islam Al-Fatah Surabaya. The research was conducted in four sessions: one pretest, two treatments, and one posttest, on March 12, 13, 14, and 18, 2025.

The instrument consisted of five items measuring intrapersonal intelligence. Validity testing showed that all items had r-count values greater than the r-table, while the reliability test using Cronbach's Alpha = 0.812 indicated that the instrument was reliable.

Data collection was carried out by administering a pretest, implementing Fun Cooking activities (Blue Rice) in two treatments, and then administering a posttest. The data were analyzed using the Wilcoxon Signed Rank Test with SPSS version 21 (Susdarwono, 2021) to determine significant differences between the pretest and posttest, as well as between the two treatments.

Result and Discussions

The research was conducted to determine the effect of Fun Cooking activities on the intrapersonal intelligence of children in class B1 at TK Islam Al-Fatah Surabaya. Data were collected through a pretest, two treatment sessions using Fun Cooking (*Blue Rice*), and a posttest. The results of the pretest and posttest were then analyzed using the Wilcoxon Signed Rank Test with the help of SPSS version 21.

The findings describe the level of children's intrapersonal intelligence before and after the implementation of Fun Cooking activities, as well as comparisons between the two treatments. These results are presented in the form of descriptive data, statistical test outputs, and their interpretation, which serve as the basis for the discussion of the effectiveness of Fun Cooking in improving children's intrapersonal intelligence.

Based on this comparison: if the r-count < r-table, then the item is declared invalid; conversely, if the r-count > r-table, then the item is declared valid. The data analysis process was assisted by SPSS version 21, with the following results:

Table 1. Validity Test Results

Item	r-count	r-table	Criteria
1	0.729	0.576	Valid
2	0.748	0.576	Valid
3	0.730	0.576	Valid
4	0.818	0.576	Valid

Item	r-count	r-table	Criteria
5	0.832	0.576	Valid

The validity test results show that all items in the instrument obtained r-count scores greater than the r-table. Thus, it can be concluded that all five items in this research instrument meet the validity criteria and are declared valid.

Reliability

After the instrument was validated and declared feasible, a reliability test was then conducted before it was used in field data collection. The reliability test aimed to measure the extent to which the instrument was consistent and dependable in assessing a particular characteristic when reused at different times. In this study, reliability was tested using the internal consistency technique with the **Cronbach's Alpha method**, analyzed with the help of SPSS version 21. The reliability test was carried out by distributing the instrument to 12 children in class B2, aged around 5–6 years.

Table 2. Data Tabulation of Reliability Test Results

No	Student	KMK	PRD	PIS	PTD	Total
1	ASC	3	3	3	4	3	16
2	AEO	3	3	3	4	4	17
3	ABI	3	2	2	3	4	14
4	AMZ	3	3	3	4	4	17

No	Student Name	KMK	PRD	PIS	PTDal	Total
5	HAP	3	3	3	4	16
6	ILA	3	3	4	4	17
7	JFA	3	4	2	4	17
8	MAL	3	3	2	3	14
9	MNF	3	3	2	3	14
10	MZR	2	2	2	3	2	11
11	NCP	3	4	3	4	4	18
12	NAR	3	3	3	4	4	17
	Total	35	36	31	43	43	188
	Average	2.920	3.008	2.588	3.587		15.67

The reliability test in this study was conducted using Cronbach's Alpha with SPSS version 21. The analysis was carried out based on decision-making criteria, where an item is declared reliable if the Cronbach's Alpha value is greater than 0.6. Conversely, if the value is less than 0.6, the item is considered unreliable. The results are presented below:

Table 3. Reliability Test Results

Cronbach's Alpha	N of Items
0.812	5

Based on the results of the reliability test using Cronbach's Alpha, a value of 0.812 was obtained for the five instrument items. Since this value is greater than 0.6, it can be concluded that the instrument used has high reliability and is suitable for research.

Next, the results of the Wilcoxon test showed significant differences between the pretest and posttest, as well as between treatment 1 and treatment 2. The increase in average scores from pretest to posttest illustrated that Fun Cooking activities not only provided enjoyable learning experiences but also improved children's ability to recognize, manage, and express their feelings and self.

The implementation of Fun Cooking encouraged children to become more confident, independent, and reflective. Children demonstrated better abilities in recognizing emotions, controlling desires, identifying self-identity, and appreciating themselves after participating in this series of activities.

Thus, it can be concluded that Fun Cooking activities are effective as an alternative learning strategy to improve the intrapersonal intelligence of early childhood, in line with the principles of active, enjoyable, and meaningful learning.

Based on the hypothesis previously proposed, this study aimed to determine whether Fun Cooking activities had a significant effect on

children's intrapersonal intelligence. The Wilcoxon test results for the pretest and posttest showed that this treatment had a positive impact. Through the Wilcoxon Signed Rank Test, a significance value of **0.002 (p < 0.05)** was found, confirming a meaningful difference before and after treatment. This finding indicates that Fun Cooking can be an effective learning method for enhancing children's ability to recognize, understand, and manage themselves.

This improvement aligns with Gardner's theory of Multiple Intelligences, which states that intrapersonal intelligence includes the ability to understand personal feelings, motivations, and goals (Legowo, 2024). Children with good intrapersonal intelligence tend to be more independent, capable of controlling emotions, and aware of their strengths and weaknesses. In this study, this was reflected in children's ability to wait patiently for their turn, express their feelings, and show initiative and confidence when presenting their creations.

Furthermore, this study also proved that the stages of Fun Cooking played an important role. Comparisons between treatment 1 and treatment 2 showed significant improvements. Treatment 1 focused on introduction and simple cooking practice, while treatment 2 reinforced the experience by providing space for reflection and self-expression. The Wilcoxon test results showed a significance value of **0.001 (p < 0.05)**, indicating that extended and reflective activities had a stronger influence on strengthening intrapersonal intelligence. This is in line with Saifana et al. (2021), who stated that cooking classes conducted

repeatedly and gradually could help children become more confident and independent.

Previous research by Aulia et al. (2024) also supports these findings. Their study demonstrated that playing block puzzles in stages improved intrapersonal intelligence, particularly in responsibility and decision-making aspects. Similarly, in this study, when children were given the opportunity to choose their own shapes and decorations for their blue rice, they were trained to make decisions and take responsibility for their choices.

Conclusion

The results of this study indicate that Fun Cooking activities (*Blue Rice*) have a significant influence on the intrapersonal intelligence of children aged 5–6 years in class B1 at TK Islam Al-Fatah Surabaya. The validity and reliability tests proved that the instrument used was appropriate and consistent for data collection, with a Cronbach's Alpha value of 0.812. Furthermore, the Wilcoxon Signed Rank Test analysis showed significant differences between the pretest and posttest, as well as between the two treatments, with a significance value of $p < 0.05$.

The increase in intrapersonal intelligence was reflected in the children's improved ability to recognize emotions, manage desires, identify their own identity, and appreciate themselves. Fun Cooking activities also helped foster independence, self-confidence, patience, and responsibility in children. Thus, Fun Cooking can be considered an effective and innovative learning alternative that is active, enjoyable,

and meaningful for early childhood education, particularly in supporting the development of intrapersonal intelligence.

References

Adhimah, S., Bachri, B. S., & Jannah, M. (2023). The effect of cooking class on the cognitive abilities of group A kindergarten children in Cluster IV Gedangan Sidoarjo District. *Prisma Sains: Jurnal Pengkajian Ilmu Dan Pembelajaran Matematika Dan IPA IKIP Mataram, 11*(1), 94. https://doi.org/10.33394/j-ps.v11i1.6714

Agbaria, Q. (2021). Classroom management skills among kindergarten teachers as related to emotional intelligence and self-efficacy. *International Journal of Instruction, 14*(1), 1019–1034. https://doi.org/10.29333/Iji.2021.14160a

Amalia, A., Baharun, H., Rahman, F., & Maryam, S. (2022). Enhancement of school competitiveness through a literacy culture based on local wisdom. *Jurnal Obsesi: Jurnal Pendidikan Anak Usia Dini, 6*(3), 2325–2333. https://doi.org/10.31004/Obsesi.V6i3.2094

Amania, I. A., Karta, W., Rachmayani, I., & Suarta, N. (2021). Penerapan kegiatan bermain fun cooking dalam meningkatkan …

Aulia, P., Tanjung, L. F. R., & Sit, M. (2024). Pengembangan kecerdasan intrapersonal anak usia dini melalui kegiatan bermain puzzle balok. *Jurnal Hawa: Studi Pengarus Utamaan Gender Dan Anak, 6*(1), 34–41.

Azmi, I. F. (2023). Pengaruh kegiatan fun cooking terhadap kecerdasan interpersonal anak usia 5–6 tahun di RA Darussalam. https://repository.unja.ac.id/50119/6/Skripsi%20finish%20repository.Pdf

Berliana, D., & Atikah, C. (2023). Teori multiple intelligences dan implikasinya dalam pembelajaran. *Jurnal Citra Pendidikan, 3*(3), 1108–1117. https://doi.org/10.38048/Jcp.V3i3.963

Chayanti, D. F. N., & Setyowati, S. (2022). Pengaruh 5 teknik finger painting terhadap kemampuan motorik halus pada anak kelompok B. *JP2KG AUD (Jurnal Pendidikan, Pengasuhan, Kesehatan Dan Gizi Anak Usia Dini), 3*(1), 1–18.

https://doi.org/10.26740/jp2kgaud.v3n1.1-18

Damayanti, M. I., Nursalim, M., & … (2024). Analisis penguatan kecerdasan spiritual mahasiswa PGSD FIP UNESA melalui aktivitas menulis jurnal syukur. *Didaktika: Jurnal ..., 13*(1), 963–980. https://www.jurnaldidaktika.org/contents/article/view/497

Dewi, R. A., & Suryana, D. (2021). Pengembangan kemampuan motorik halus pada anak usia 5–6 tahun. *Jurnal Pendidikan Anak Usia Dini,* 119–132.

Rahmat, P. S. (2021). *Perkembangan peserta didik.* Bumi Aksara.

Simatupang, N. D., Widayati, S., Adhe, K. R., & Shobah, A. N. (2021). Penanaman kemandirian pada anak usia dini di sekolah. *Jurnal Anak Usia Dini Holistik Integratif (AUDHI), 3*(2), 52–59. http://dx.doi.org/10.36722/jaudhi.v3i2.593

Susdarwono, E. (2021). Testing through the Mann-Whitney method and the Wilcoxon Signed Level on learning cube and perfect cube roots. *Journal of Education and Learning Mathematics Research (JELMaR), 2*(1), 26–36. https://doi.org/10.37303/jelmar.v2i1.43

Winarsih, W. E. (2021). Perkembangan fisik anak, problem dan penanganannya. *Atthiflah: Journal of Early Childhood Islamic Education, 8*(1), 55–68. https://doi.org/10.54069/atthiflah.v8i1.126

Yadav, S., & Kumari, M. (2020). A pre-experimental study to assess the effectiveness of a structured teaching program regarding knowledge about home management of selected common illnesses in pre-school children among mothers residing in rural area of Panipat. *International Journal of Nursing Education, 12*(1), 73–78.