

IMPROVING EARLY CHILDHOOD COGNITIVE ABILITIES THROUGH HAND MOVEMENT METHOD

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Abstract

The purpose of this study was to examine how early childhood cognitive ability development occurs in case 1) Memory 2) Recognize numbers and their sequences, and 3) Application of educational materials in everyday life. The research method and approach are qualitative descriptive, with data collection instruments including observation sheets, interviews, attitude scale questionnaires, and documentation studies. Qualitative analysis was used to supplement descriptive statistical analysis. Ten individuals participated in the research, six (six) boys and four (four) girls from group B TKQ Mutiara Qolbu Cihampelas West Bandung Regency. The research revealed that: 1). The use of hand movement method can help children improve their memory. This is evident in the increasing amount of food and drink that the child recalls. Initially, the child could recall only three materials about eating and drinking in two weeks. After two weeks, the child could recall six materials. 2) Children can recognize numbers and classify movements according to direction, whereas previously the child was restricted to knowing the numbers and the order of movement. 3) The child can recall previously taught material but has been unable to apply it in his daily life. The study's findings indicated that hand movement method was effective at improving early childhood cognitive abilities. This study suggests that when combined with learning media, repetition, and habituation at home with parents, hand movement method may be more effective. Along with being easily remembered, the material can also be applied optimally on a daily basis.

Keywords: early childhood, hand movement method, cognitive abilities

Abstrak

Penelitian ini dilakukan dengan tujuan untuk melihat bagaimana perkembangan kemampuan kognitif anak usia dini dalam hal 1). Daya ingat, 2). Mengenal angka dan urutan, serta 3). Pengaplikasian materi dalam kehidupan sehari-hari. Metode dan pendekatan penelitian yang diambil adalah deskriptif kualitatif, di mana lembar observasi, wawancara, angket skala sikap, dan studi dokumentasi menjadi instrument dalam pengumpulan datanya. Data dianalisis secara kualitatif yang dilengkapi dengan analisis statistik deskriptif. Subjek penelitian berjumlah 10 (sepuluh) orang, yang terdiri atas 6 (enam) orang anak laki dan 4 (empat) orang anak perempuan di kelompok B TKQ Mutiara Qolbu Cihampelas Kabupaten Bandung Barat. Dari hasil analisis data ditemukan bahwa 1). Penggunaan metode gerakan tangan dapat meningkatkan daya ingat anak, hal ini dapat dilihat dari bertambahnya materi about makan dan minum yang diingat anak. Yang awalnya anak hanya mampu mengingat 3 (tiga) materi about makan dan minum dalam dua minggu menjadi 6 (enam) materi dalam dua minggu. 2) Anak dapat mengenal angka dan mengurutkan gerakan sesuai arahan, dimana pada awalnya anak masih terkendala dalam mengenal angka dan urutan gerakannya, 3) Anak dapat mengingatkan orang sekitar materi yang telah diajarkan, namun belum dapat mengaplikasikan materi tersebut dalam kehidupan sehari-harinya. Implikasi dari penelitian ditemukan bahwa metode gerakan tangan mampu mengembangkan kemampuan kognitif anak usia dini. Rekomendasi dari penelitian ini adalah metode gerakan tangan akan lebih efektif apabila disertai dengan media pembelajaran, dilakukan pengulangan, dan pembiasaan di rumah bersama orang tua, sehingga selain materi dapat diingat dengan baik, dapat juga diaplikasikan dalam kehidupan sehari-hari dengan optimal

Kata kunci: Kemampuan kognitif, metode gerakan, anak usia dini

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INTRODUCTION

Childhood is the period when physical, motor, cognitive, linguistic, socio-emotional, self-concept, discipline, art, moral, and religious values are developed. As a result, it requires conditions and stimulation that are optimal for the child's growth and development. The design can be completed at home, school, or in the neighborhood, among other locations. The design of learning activities is used in schools and early childhood education facilities such as kindergarten / RA, PlayGroup, TPA, TPQ, and SPS, among others. These learning activities foster the development of eight aspects of intelligence. One of them is the cognitive aspect, intelligence, or capacity for thought that is associated with mathematical logic intelligence (logic smart). Cognitive aspects are stimulated through the five senses in order to foster early childhood thinking about themselves and their environment, thereby increasing their knowledge as a foundation for acquiring broader general knowledge.

Mu'min (Mu'min, 2013) stated that the term cognitive is derived from the equivalent term cognition, which means knowing. Cognition, in a broad sense, is the capacity for knowing, comprehending, and applying knowledge. Cognitive capacity is essential for early children to think more complexly, retain information easily, grasp general knowledge, and engage in everyday thinking and problem-solving. According to Khadijah (Khadijah, 2016), cognitive is a process of thinking that manifests itself in memory ability, the ability to connect events, creativity, and language, as well as the ability to assess and consider everything observed in the surrounding world in relation to the problem solving it faces. Tasliyah, Nurhayati, and Nurunnisa defined mathematical logic intelligence as a component of the cognitive realm that must be adequately stimulated during early childhood, as the child's brain undergoes a rapid and precise growth drive during this phase (Tasliyah et al., 2020). Thus, learning activities must be made as engaging, meaningful, and effective as possible through the use of a variety of methods, educational media, and educational game tools. A pleasant and comfortable learning environment can aid in knowledge absorption.

This is consistent with Juliana's statement that cognitive abilities should be developed from an early age because they relate to the brain, concentration, and memory, all of which are necessary for a child's life as he enters school age (Juliana, 2018). At school age, the child must acquire a plethora of new knowledge and skills. This requires concentration in order for the child to retain and recall various pieces of information or knowledge acquired through his five senses. According to his research, movement can improve a child's memory, as evidenced by the child's increased memorization of hadith. In line with Juliana, Salamah stated that movement or kinesthetic provides convenience to the child in remembering and understanding every material given (Salamah, 2018). Children's memory skills are at the peak performance. Nasihah expressed a similar viewpoint, stating that hand movement method could help improve children's ability to memorize things (Nasihah, 2018). The research found that the total number of children who can recall learning materials ranges from 10 (ten) to 16 (sixteen) children. Learning hand movement should be enjoyable.

Malikah and Rohinah affirmed that movement techniques can enable children in remembering and comprehending the material taught (Malikah & Rohinah, 2019). It is about memorizing hadith about daily life in this case, where the child can quickly recall the

memorization taught through the movement. Miftahillah suggested that using hand movements rather than lecture methods can help children focus and concentrate more on understanding material and improve the child's memory (Miftahillah, 2019). According to Lestari and Wahyono (Lestari & Wahyono, 2019), early childhood learning should be active in order to avoid boredom. Thus, hand movement is regarded to be exceptionally beneficial for the child, as the child does not simply sit and listen, but moves and concentrates on the movements and materials.

This is supported by Teguh (Teguh, 2020) that movement methods could be used in early childhood education to enhance memory and comprehension of a subject, particularly memorization. This method integrates visual, auditory, and kinesthetic learning models concurrently, allowing children to learn directly through their senses through observation, imitation, repetition, and experimentation. Suyanto and Masitoh argued that several factors must be considered when planning early childhood learning activities: (1) Activities are conducted actively, freely, and joyfully through the use of games, storytelling, and singing. (2) Intelligence is acquired by children through the use of all senses, equipment, and play equipment, as well as the surrounding environment (peers, teachers, parents, animals, and plants) in a pleasant environment (Rukanda, 2020).

Thus, education should strive to innovate in the area of technology-based learning and information in order to encourage students to use technology as a tool for learning and to make it easier for teachers to create a learning medium that attracts students and streamlines the learning process. The advancement of technology is always accompanied by innovative thinking, one example of which is the existence of learning media that are appropriate for the current generation (Aripin et al., 2020). Meanwhile, Patmodewo argued that cognitive intelligence is demonstrated by children's ability to solve problems through the use of their thoughts, memory, and design movements (Khadijah & Amelia, 2020). In early childhood, memorization, repetition, and habituation can stimulate cognitive abilities. These activities help to maintain and activate nerve connections in the brain, which helps the child's ability to remember develop. This is reinforced by Benjamin Samuel Bloom's (Mulyani, 2020) statement that the ability to remember is the first step in developing one's cognitive realm in order to be able to apply knowledge. This cognitive realm consists of 6 (six) levels, namely: (1). Knowledge, which is later revised to remember, (2). Comprehension, (3). Application, (4). Parsing or elaboration (analysis), (5). Synthesis, and (6). Evaluation.

Tellier expressed another viewpoint, stating that the method of movement enables children to better memorize vocabulary because they are physically involved in their learning. These findings imply that movement, specifically motor modality, can leave a more vivid imprint on memory (Tellier & Tellier, 2008). Miftahillah validates Tellier's argument by stating that hand movement methods enable children in remaining focused and happy throughout the process of memorizing *asmaul husna* because hand movements can be adjusted to familiar daily movements (Miftahillah, 2019). This is consistent with the findings of Rochmah et al. (Rochmah et al., 2020), who discovered that the process of using movement is described as an integral part of the child's language development and that the use of movement reflects a more advanced thought process. This indicates that movements and language are inextricably linked to the thought process. Movements can indicate cognitive sophistication as well as physical abilities. Mauli completely agree with Rochmah, stating that the Auditory Kinesthetic Visualisation (VAK) learning model is an excellent tool for improving students' mathematical problem-solving abilities (Mauli et al., 2020). His research yielded a gain value of 0.64 in the "Moderate" category and a percentage effectiveness of 82.25 percent in the

"Very Effective" category, indicating that students' mathematical problem-solving ability improved significantly.

Thus, it is concluded that using hand movements to improve cognitive abilities and early childhood memory is a preferable method. Meanwhile, observations of group B children at TKQ Mutiara Qolbu revealed that the ability to recall, sort, and apply food and beverage material has not developed as expected. The method of hand movement is expected to positively influence young children in remembering, sorting, and applying their learning in daily life. On the basis of these considerations, researchers are interested in describing how hand movement methods can be used to enhance cognitive ability or early childhood memory in group B TKQ Mutiara Qolbu Cihampelas. The results of this study are expected to be obtained, and studies on how to use effective hand movement methods in early childhood learning activities in order to achieve essential competencies and development indicators will be developed again to obtain a more complete picture.

METHOD

Concerning the issue of dynamic, holistic, and meaningful research, it is impossible to use quantitative methods such as test instruments and others. As a result, researchers choose the qualitative descriptive approach, which is widely used in natural and social objects that are dynamic and change over time, as well as research with researchers as the critical instrument (Sugiyono, 2019). This is supported by (Burhan, 2020), who stated that qualitative research design should be undertaken by the researcher in order for the researcher to understand how the research model will be constructed and estimated while the field results are obtained.

Participatory observations, interviewing, and documentation studies are used to collect data. Additionally, attitude scale questionnaires are distributed to discover the extent to which food and beverage material is understood and applied using hand movement methods, as well as the ability of memory and application while at school and home. Group B children were observed, and group B teachers, TKQ leaders, children, and parents were interviewed and filled out attitude scale questionnaires. Documentation studies are conducted by contacting the school, reviewing observation records, reviewing student reports, and speaking with class or school administration.

Data was analyzed using descriptive statistics. According to (Sugiyono, 2019), descriptive statistics is the collection, grouping, and processing of data by describing, decoding, or describing the collected data in terms of the field conditions, where the results are not to be generalized but can be transferred to another location with similar problems. According to Miles and Huberman (Purnama S, Pratiwi H, 2020), the data analysis process requires problem accumulation in the field (data reduction), data visualization (presentation), and discussion or conclusion.

The research was conducted at TKQ Mutiara Qolbu, which is located on Jln. Raya Cihampelas No. 167 in the Cihampelas District of the West Bandung Regency. Children aged 5-6 years were the subjects of this study, which had a total of 15 (fifteen) individuals. Nine boys and six girls were included in the study. Purposive sampling technique was employed as the study subjects, which included up to ten children. This technique is used to generate samples that are logically representative of the respondent by establishing specific criteria. Several criteria were used in selecting this subject: first, children must have attended the institution since they were four years old (group A). Second, the child has already demonstrated an ability to recognize numbers and letters. Thirdly, the child is active and has

a good understanding of english. Fourth, both parents have completed at least high school. The researcher begins by compiling observation sheets and conducting interviews, and then determines the time and location of the research by requesting permission from the principal to conduct it. This activity is preceded by the presentation of objectives and the selection of research subjects, and is followed by the search, collection, engagement, and analysis of data obtained in order to make conclusions and recommendations in the final stage.

The following indicators of observational assessment are based on the Standard Child Achievement Level (STTPA): 1). Learning and problem-solving abilities, i.e. the ability to complete tasks despite obstacles, 2). Logical reasoning, which includes the ability to classify movements according to their sequence, recall and mention six adab eating and drinking in accordance with their movements. 3). Symbolic reasoning, which includes the ability to refer to the symbol for the numbers 1-10, to calculate the number of movements, and to imitate movement. Additionally, the child's ability to apply the material in his daily life is considered.

RESULTS AND DISCUSSION

Results

Planning activities to improve early childhood cognitive ability using hand movement methods at TKQ Mutiara Qolbu has been adjusted to Daily Lesson Plan (DLP) based on observations. Learning activities involving hand movements are carried out in the core activities and repeated in the closing activities before going home as an evaluation using the classic model, in which the child sits in a circle and the teacher is among the children. Teachers conduct lecture activities on eating and drinking materials, movement demonstrations, and then ask the child to repeat it alternately between the teacher and the child in the core activities. The child can remember forgotten material through hand movements that correspond to the sound and sort the movements according to his words through the symbols of his hand movements using hand movements.

Table 1. Children's Cognitive Ability Development Observation Results

Students' Code	Each Question's Score						Total Score	
	Problem Solving Learning		Logical Thinking	Symbolical Thinking				Implementation
	Child can complete tasks (A)	The child can mention the movements shown (B)	The child can remember, mentioning six eat and drink adab according to his movements ©	Can mention symbols of numbers one to ten (D)	Can count the number of movements (E)	Can mimic the movement of eat and drink adab (F)		Can apply movement learning in daily life (G)
S1	1	2	2	2	1	2	1	11
S2	2	2	2	1	1	2	2	12
S3	1	2	2	2	2	1	1	11
S4	2	1	2	1	2	2	1	11
S5	1	1	2	2	1	1	2	10
S6	1	2	1	2	1	2	1	10
S7	2	2	3	3	2	2	3	17
S8	3	3	3	3	3	3	3	21

Students' Code s	Each Question's Score						Total Score	
	Problem Solving Learning		Logical Thinking	Symbolical Thinking				Implementation
	Children can complete tasks (A)	The child can mention the movements shown (B)	The child can remember, mentioning six eat and drink adab according to his movements ©	Can mention symbols of numbers one to ten (D)	Can count the number of movements (E)	Can mimic the movement of eat and drink adab (F)		Can apply movement learning in daily life (G)
S9	2	2	1	2	2	2	2	13
S10	1	3	3	2	3	2	2	16
Total	16	20	21	20	18	19	18	132
Total Score							132	
Maximum Score							280	
Average Score							13.2	

The interviews with group B teachers revealed that learning adab eating and drinking through hand gesture methods felt more natural than the previous method, which relied solely on conversation (lectures) and talaqqi. Whereas using the previous method, the child can remember 6 (six) material adab eat and drink within 2 (two) weeks, the child can only remember 3 (three) material adab eat and drink within 2 (two) weeks. Children are likely to be ready to follow the learning, to better understand it, and to recall previously forgotten material from the existing movement. It's just that the application of attitudes in everyday life is still lacking. Teachers face additional challenges because there are no material guidelines on hand movement methods, and not all materials can be applied using hand movements.

The students' parents share the same sentiment. According to parents, learning the material of eating and drinking through movement methods is very beneficial to the child's memory of all the materials. If the material of eating and drinking is forgotten, the child can remember and understand it through his movements. Even the child can remind parents to use the material. However, the child still needs to be reminded, and his parents are unsure how to guide him because there are no material guidelines. Learning with hand gesture material is enjoyable for children, but it can be difficult for some children who lack memory because, in addition to having to remember sounds or words, children must also remember their movements. Children enjoy playing, but if they play for an extended period of time, they become bored because they only see and listen to the teacher. The following empirical data was also obtained based on the results of questionnaires distributed to 10 (ten) parents and 5 (five) teachers regarding the use of hand movement methods:

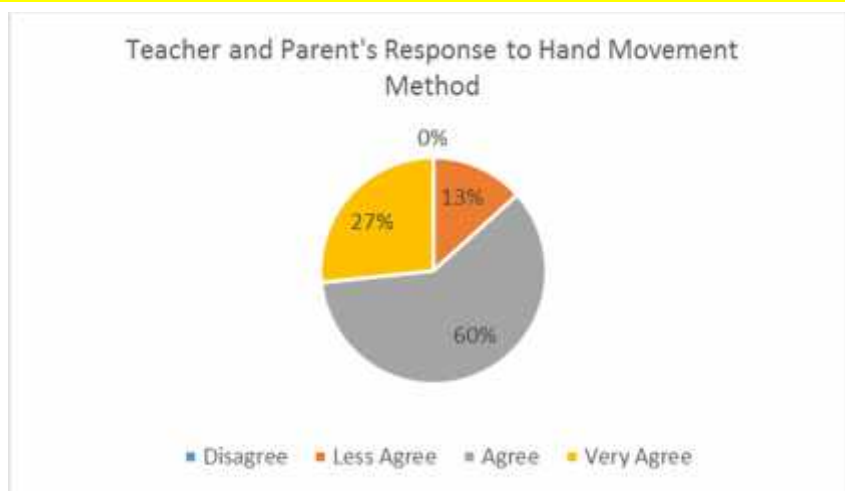


Figure 1. Teacher and Parent's response to Hand Movement Method (source: empirical data)

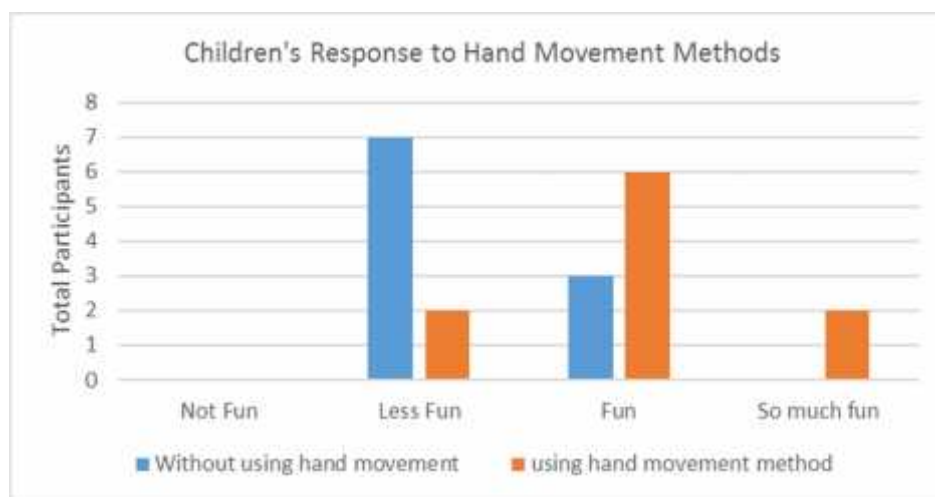


Figure 2. Children's Response to Hand Movement Methods (Source: Empirical Data)

The data above indicates that the high value of questionnaire results filled out by teachers, parents, and children who state that they agree with the use of hand gesture methods in the material of eating and drinking, most children state that learning uses fun movements and some children state very pleasant, there is nothing to suggest that the use of movement methods is unpleasant. Based on the findings above, it is clear that of the ten children studied. There are still many children who are undeveloped or in the process of developing. In this case, it means that most children still need to be helped or reminded to eat and drink using gestures in their learning materials. According to the percentage analysis of the implementation of movement method activities, the total observation score of ten children was 132, compared to the expected maximum score of 280. The average value obtained is 13.2, which, if present, indicates that the cognitive abilities of children in group B TKQ Mutiara Qolbu are 47.14%. The percentage result is less than 50%, indicating that group B children's cognitive ability (intelligence) in TKQ Mutiara Qolbu has yet to meet expectations. This ability can be seen in the child's inability to remember the movement and sound. The child is still unfamiliar with the number symbol and sequence. The child is unable to identify the first letter of the movement taught and has yet to apply the material of the movement adab

eating taught in his daily life. Children still require guidance, assistance, and reminders. Overall, children prefer this method of hand movement. Its use is supported by both teachers and parents.

Discussions

Based on the observations, interviews with teachers and parents as well as children, it was obtained that the cause of the child's low cognitive ability in terms of remembering, understanding, and applying the learning is because learning is still centred on teachers, less attractive, the absence of supporting learning media, and the absence of learning guidelines for teachers and parents. This is consistent with the findings of Dewi (Dewi, 2017) which found that learning media is essential for early childhood learning because it can stimulate all aspects of children's intelligence, whether directly or indirectly. Learning media can enhance learning by making it more raw, interactive, and engaging. Another factor that contributes to children's optimal development when learning the introduction of numbers and letters is teachers' lack of creativity in the creation or use of innovative and exciting learning media. The use of the same method in each learning experience causes the child to become bored quickly.

Borman and Erma found that by providing a more varied touch, such as multimedia, the model of learning through visual, auditory, and kinesthetic (movement) can be maximized in improving the child's ability (Borman & Erma, 2018). Multimedia learning media can provide more meaningful, engaging, and varied experiences for guided self-learning activities. Rahmiy supported Borman and Ema study, argued that the hand movement method could be used for memorization activities because it improves the child's memory better than the lecture method alone (Rahmiy, 2020). The use of hand movement methods will be more effective if it is accompanied by the use of learning media. Mauli (Mauli et al., 2020) shared the same viewpoint, claiming that the use of Visualization, Auditory, and Kinesthetic learning models is effective in stimulating children to solve mathematical problems.

Furthermore, some of the factors that contribute to children's low cognitive ability in TKQ Mutiara Qolbu in terms of the introduction of numbers and letters, as well as the ability to sort these movements, are due to teachers' lack of creativity in terms of the selection and application of methods and learning media, as well as the absence of learning guidelines. This is in line with the findings of the study conducted by Nonik in group A at PAUD Widya Dharma. Drawing card games, according to Nonik, can quickly develop a child's ability to recognize the concept of numbers and colors when appropriate demonstration methods are used (Nonik et al., 2013). Yuli provided the same perspective, claiming that using the VAK method with image media could help children in group B1 at Dharma Praja Kindergarten learn numbers (Yuli, 2016). Another point of view expressed by Widiartha that first, the provision of comprehensive learning facilities is essential, and that, second, both creativity educators today must direct innovative VAK methods by using multimedia so that students' knowledge becomes more optimal. Third, other researchers can conduct additional research on the impact of visualization, auditory, and kinesthetic interactive multimedia-assisted learning models with various materials and samples, so that the study's findings can describe the appropriate field conditions (Widiartha, 2018).

CONCLUSION

Based on the study results, the cognitive abilities of early childhood in TKQ Mutiara Qolbu group B are still not as expected. This is characterized by the number of children who have just reached the undeveloped stage and are still developing on each assessment based on predetermined indicators, with presentation results of 47.14% of the minimum achievement target of 50%. This indicates that hand movement methods can be applied in early childhood learning, judging by the high value of questionnaire results filled out by teachers, parents, as well as children who state that they agree with the use of hand movement methods in eating and drinking materials, most children state that learning uses fun gestures and some children state very pleasant, there is no evidence found in this research that the use of hand movement method is unpleasant.

REFERENCES

- Aripin, U., Setiawan, W., Hendriana, H., & Masrurroh, A. A. (2020). ASGAR (Animasi Software Geogebra Dan Alat Peraga) untuk Mendukung Proses Pembelajaran Matematika di Kelas. *Jurnal SOLMA*, 9(2), 354–360. <https://doi.org/10.22236/solma.v9i2.3975>
- Borman, R. I., & Erma, I. (2018). Pengembangan Game Edukasi Untuk Anak Taman Kanak-Kanak (Tk) Dengan Implementasi Model Pembelajaran Visualisation Auditory Kinesthetic (Vak). *JUPI (Jurnal Ilmiah Penelitian Dan Pembelajaran Informatika)*, 3(1), 8–16. <https://doi.org/10.29100/jupi.v3i1.586>
- Burhan, B. (2020). *Social Research Methods*. Kencana.
- Dewi, K. (2017). Pentingnya Media Pembelajaran. *Jurnal Pendidikan Anak Usia Dini*, 1 No.1, 81–96.
- Juliana, J. (2018). Upaya Meningkatkan Daya Ingat Anak Menghafal Hadits melalui Metode Gerakan. *A f lun : Journal of Islamic Early Childhood Education*.
- Khadijah. (2016). *Pengembangan Kognitif Anak Usia Dini*.
- Khadijah, K., & Amelia, N. (2020). Asesmen Perkembangan Kognitif Anak Usia 5-6 Tahun. *Al-Athfaal: Jurnal Ilmiah Pendidikan Anak Usia Dini*.
- Lestari, S., & Wahyono, I. (2019). Peran Ppl Dalam Implementasi Kegiatan Kokurikuler Menghafal Surat-Surat Pendek Al-Qur'an Melalui Metode Gerakan Tangan Di Sdn 1 Genteng Wetan Banyuwangi. *Abdi Kami*, 1(2), 78–87.
- Malikah, F., & Rohinah. (2019). Penerapan Metode Gerakan untuk Menghafal Hadis pada Anak. *Jurnal Ilmiah*, 1, 1–10.
- Mauli, G. R., Ardiana, N., & Lubis, R. (2020). Penggunaan Model Pembelajaran Visualization Auditory Kinesthetic (Vak) Terhadap Kemampuan Pemecahan Masalah Tematis Siswa (*Mathematic Education Journal*), 3(3), 28–34.
- Miftahillah, N. dan. (2019). Penggunaan Metode Gerakan Tangan Dapat Menghafal Asmaul Husna Pada Kelompok A Di RA Al Qodiri Wates Legok Pasuruan. *Proceedings of The 3rd Annual Conference on Islamic Early Childhood Education (AICIED)*, 330–340.
- Mu'min, S. A. (2013). Teori Pengembangan Kognitif Jian Piaget. *Jurnal AL-Ta'dib*, 6(1), 89–99.
- Mulyani, S. (2020). Analisis Kesulitan Pemecahan Masalah Pada Materi Perbandingan Berdasarkan Ranah Kognitif Revisi Taksonomi Bloom. *Syntax Idea*, 2(3).
- Nasihah, S. (2018). Peningkatan Hafalan Surah Al Kafirun Melalui Metode Gerak Kinestetik Di Paud Berbasis Aqidah Islam (Bai) Khoiru Ummah Meteseh Kec. Tembalang Semarang Tahun Pelajaran 2017/2018. *Skripsi*.
- Nonik, N. N., Raga, I. G., & Murda, I. N. (2013). Penerapan Metode Demonstrasi dengan Media Kartu Gambar untuk Meningkatkan Kemampuan Kognitif Anak Kelompok A di

- PAUD Widya Dharma Bondalem Tejakula. *Undiksha*.
- Purnama S, Pratiwi H, S. P. (2020). *Penelitian Tindakan Kelas untuk Pendidikan Anak Usia Dini*. Remaja Rosda Karya.
- Rahmiy, K. (2020). Penerapan Metode Isyarat Tangan Dalam Pembelajaran Menghafal Dan Mengartikan Al-Qur'an. *Jurnal PAI Raden Fatah*, 2(1), 60–73.
- Rochmah, S. N., Swandhina, M., & Maulana, R. A. (2020). *Child Gesture as a Form of Non-Verbal Communication*. 410(Imcete 2019), 293–295. <https://doi.org/10.2991/assehr.k.200303.071>
- Rukanda, N. (2020). Efforts to Stimulate Entrepreneurship Character for Early Childhood through Innovative Learning Methods Based on Science, Technology, Engineering, Art, and Math (STEAM). *Golden Age: Jurnal Pendidikan Anak Usia Dini*, 4(1). <https://doi.org/10.29313/ga:jpaud.v4i1.5369>
- Salamah, U. (2018). Pengajaran Menggunakan Metode Kaisa Dalam Menghafal Al Quran Pada Anak. *Journal TA'LIMUNA*, 7(2), 124. <https://doi.org/10.32478/talimuna.v7i2.186>
- Sugiyono. (2019). *Metode Penelitian Kuantitatif Kualitatif dan R & D*.
- Tasliyah, L., Nurhayati, S., & Nurunnisa, R. (2020). *Mengembangkan Kecerdasan Logika Matematika Anak Usia Dini Melalui Ape Kids ' N Kit*. 3(4), 307–314.
- Teguh, J. (2020). *Metode Menghafal dan Memahami al-Qur ' an bagi anak usia dini melalui Gerakan Isyarat ACQ Pendahuluan*.
- Tellier, M., & Tellier, M. (2008). *pelajar. Dua puluh anak Prancis (usia rata-rata 5; 5) mengambil bagian dalam percobaan. Mereka harus belajar delapan*. 2, 219–235.
- Widiartha, K. D. R. (2018). Pengaruh Model Pembelajaran Visualization Auditory Kinesthetic Berbantuan Multimedia Interaktif Terhadap Kompetensi Pengetahuan IPA. *Jurnal Penelitian Dan Pengembangan Pendidikan*, 2(2), 145. <https://doi.org/10.23887/jppp.v2i2.15396>
- Yuli, A. K. (2016). Penerapan Model Pembelajaran Visual, Auditory, Kinestethic Berbantuan Media Gambar Untuk Meningkatkan Kemampuan Konsep Bilangan. *Jurnal Pendidikan Anak Usia Dini Universitas Pendidikan Ganesha*, 4(1), 344–352.