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Implementation Montessori Method to Develop Multiple Intellegences in Al-Fathur Rachman Kinder Garten Purwakarta

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Abstract: *This research discusses the aplication of learning methods Montessori Al- Fathur Rachman Kindergarten, Purwakarta. The focus of this paper is to investigate the effectiveness of Montessori learning methode to development multiple intelegences. The Montessori methode is based on the principle that a children should be oriented towards developing their potential. The potential means plural intellegence as intelligence in multiple intelligences includes verbal-linguistic intelligence (word smart), logical-mathematical intelligence (number/ reasoning smart), visual-spatial intelligence (color-picture intelligence), and musical intelligence (sound smart), and kinesthetic intelligence (movement smart), interpersonal intelligence (social smart), intrapersonal intelligence (self/ people smart), naturalist intelligence (nature smart). The research method in this paper used a type of qualitative research using a desciptive analysis approach. Data collection methode using interview techniques, documentation, and observation. Data analysis used data reduction, triangulation. The results of the study showed that the implementation of Montessori method in improving multiple intellengences of Al- Fathur Rachman Kindergarten Purwakarta was very effective.*

Keywords*: Montessori, Method, Multiple Intellegences.*

Introduction

The new paradigm that has become the center of research in recent times is multiple intelligences, which has developed since it was first discovered. In his book Frame of the Mind Howard Gardner initially discovered the seven intelligences. After that, based on the intelligence criteria above, Gardner found the 8th intelligence, namely naturalist. And finally, Howard Gardner gave rise to the 9th intelligence, namely existential intelligence (Chen et al., 2009). According to Gardner, intelligence in multiple intelligences includes verbal-linguistic intelligence (word intelligence), logical-mathematical intelligence (number intelligence), visual-spatial intelligence (color-image intelligence), musical intelligence (song-smart intelligence), kinesthetic intelligence (movement intelligence). , interpersonal intelligence (social intelligence), intrapersonal intelligence (self-smart), naturalist intelligence (natural intelligence), existential intelligence (intelligent nature). Each intelligence in multiple intelligences has certain indicators. Children's multiple intelligences are identified through observations of behavior, actions, tendencies to act, children's sensitivity to something, prominent abilities, spontaneous reactions, attitudes, and pleasure (Fogarty & Stoehr, 2008).

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This study aims to determine the application of multiple intelligences in Al-Fathur Rachman Kindergarten, Purwakarta. This kindergarten has the advantage of optimizing the application of this intelligence by involving teachers, children, and parents as the three elements that support its application. Based on initial observations, researchers saw the implementation of increasing word intelligence with communication and peer discussion between children and teachers. Practicing singing to improve musical intelligence, being smart in numbers by learning to count and the availability of arithmetic media, being able to classify colors with picture books and colors provided by the teacher.

Literatur Riview

The Montessori method is a child-centered approach (Scientific Observation). There are five aspects of the Maria Montessori method. First, Practical Life is a life of daily skills which includes fine motor skills which include caring for the environment, oneself, etc. Second, Sensorial is a series of materials and methods used to develop all the senses that children have (Feez, 2009). Third, language is a communication system related to sound, the formation of words, sentences, and language signs used by a group of people. Fourth, Mathematics means a learning curriculum to help curriculum children understand mathematical concepts, from abstract to concrete. Fifth, culture is learning to invite children to understand the world such as geography, zoology, botsny. family, and history (Montessori et al., 2003).

The theory of multiple intelligences or better known as the theory of Multiple Intelligences, is the fruit of thought from Howard Gardner. Gardner conducted research funded by the Bernard Van Leer Foundation, in conducting his research he was assisted by his friends. Gardner and his friends reassembled various materials and literature related to the brain (thinking), genetics, anthropology, and psychology in an attempt to determine the optimal taxonomic capacity of humans (P. P. Lillard, 2011). According to Gardner, there are seven (originally found seven) multiple intelligences, namely verbal-language intelligence Verbal-language intelligence is the ability to use words and language, high ability and skill in capturing information and communicating, and being an expert speaker. This intelligence includes the ability to effectively use language to express one's intelligence, or poetry. Logical-mathematical intelligence consists of the capacity to analyze problems logically, operate mathematics, and research issues scientifically (Armstrong et al., 2009).

According to Gardner, the ability to deduce and observe patterns, reason deductively, and think logically to describe one form of logical-mathematical intelligence is often called scientific and mathematical thinking (Tirri & Nokelainen, 2012). Musical-rhythmic intelligence includes skills in performance, composition, and appreciation of musical patterns (Campbell & Campbell, 1999). They think in terms of sound, rhythm, and pattern. They will respond to music both appreciative and critical. This increases the capacity to recognize and compose musical scales, tones, and rhythms. According to Gardner, musical intelligence is almost parallel in structure to verbal-language intelligence. Gesture intelligence includes the ability to control the body, and to handle things skillfully. They express themselves through movement, have good body balance and hand-eye coordination, for example playing toss a ball. Visual-spatial intelligence includes the potential to recognize and use patterns from large spaces and more limited areas (Canino & Spurlock, 2000).

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A navigator, an architect, a painter are people who have this intelligence. Interpersonal intelligence relates to the capacity to understand the intentions, motivations and desires of others. This allows people to work more effectively with others. Educators, salespeople, religious leaders, political leaders, and extension workers all need the development of interpersonal intelligence. Intrapersonal intelligence requires the capacity to understand oneself, appreciate one's own feelings, fears and motivations. In Gardner's view this includes having an effective working model of oneself, and being able to use information to organize one's life. Naturalist intelligence is the natural intelligence of humans in looking at the natural environment, how he loves the environment, cares for the environment, and analyzes the usefulness of existing natural resources.

Verbal-Linguistic Intelligence. This intelligence is indicated by a person's sensitivity to sound, structure, meaning, function of words, and language. Children who have this intelligence tend to like and be effective in terms of oral and written communication, compose stories, discuss and participate in debates on a problem, learn foreign languages, play language "games", read with high comprehension, easily remember what other people say, don't write wrong easily. or misspelled, good at making jokes, good at composing poetry, precise in grammar, rich in vocabulary, and writing clearly (Willis, 2007).

Logical-Mathematical Intelligence. This intelligence is characterized by sensitivity to logical patterns and has the ability to digest these patterns, including numerical development of multiple intelligences and able to process long lines of thought. Someone who has this intelligence tends to like and be effective in terms of: calculating and analyzing calculations, finding functions and relationships, estimating, predicting, experimenting, looking for logical solutions, finding patterns, induction and deduction, organizing / making outlines, make steps, play strategic games, think abstractly and use abstract symbols, and use algorithms (Hoerr et al., 2000).

Visual-Spatial Intelligence. This intelligence is characterized by the sensitivity to perceive the visual-spatial world accurately and transform the initial perception. Someone who has this intelligence tends to like architecture, buildings, decoration, art appreciation, design, or floor plans. They also enjoy and are effective in making and reading charts, maps, color coordination, making shapes, sculptures and other three-dimensional designs, creating and interpreting graphics, interior design, and can imagine in detail objects, are good at navigation, and determine direction. . They like to paint, sketch, play space games, think in images or shapes, and move shapes in fantasy (Beachner & Pickett, 2001).

Musical Intelligence. This intelligence is characterized by the ability to create and appreciate rhythms, pitch patterns, and tone colors; as well as the ability to appreciate forms of musical expression. Someone who is optimal in this intelligence tends to like and is effective in composing/composing melodies and lyrics, singing small, singing and whistling. They are also easy to recognize rhythm, easy to learn/remember rhythm and lyrics, enjoy listening to and appreciating music, playing musical instruments, recognizing instrument sounds, able to read music, tapping hands and feet, and understanding musical structure (Liebman, 2019).

Kinesthetic Intelligence. This intelligence is characterized by the ability to control body movements and the ability to manage objects. Someone who is optimal in this intelligence

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tends to like and is effective in terms of expressing in expressions or styles, athletics, dancing and arranging dances; strong and skilled in fine motor, hand and eye coordination, gross motor and endurance. They are also easy to learn by doing, easily manipulate objects (with their hands), make graceful movements, and are good at using body language (Zepeda & Mayers, 2014).

Interpersonal Intelligence. This intelligence is characterized by the ability to digest and respond appropriately to the moods, temperaments, motivations, and desires of others. Someone who is optimal in this intelligence tends to like and is effective in nurturing and educating others, communicating, interacting, empathizing and sympathizing, leading and organizing groups, making friends, resolving and mediating conflicts, respecting the opinions and rights of others, seeing things from various perspectives. point of view, sensitive or sensitive to the interests and motives of others, and good at working in a team (Gamble & Gamble, 2013).

Naturalist Intelligence. This intelligence is characterized by the ability to distinguish the members of a species, recognize the existence of other species, and map the relationship between several species, both formally and informally. Someone with optimal naturalist intelligence tends to like and be effective in analyzing similarities and differences, likes plants and animals, classifying flora and fauna, collecting flora and fauna, finding patterns in nature, identifying patterns in nature, seeing things in nature in detail, forecasting the weather, protect the environment, recognize various species, and understand dependence on the environment (Kovalik & Olsen, 2010).

Intrapersonal Intelligence. This intelligence is characterized by the ability to understand one's own feelings and the ability to distinguish emotions, as well as knowledge of one's own strengths and weaknesses. Someone who is optimal in this intelligence tends to like and is effective in fantasizing, "dreaming", explaining values and beliefs, controlling feelings, developing different beliefs and opinions, likes time to be alone, think, and reflect. They always do introspection, know and manage their interests and feelings, know their strengths and weaknesses, are good at motivating themselves, set realistic self-goals, and understand (Cassady & Eissa, 2008).

Existential Intelligence. Existential intelligence is characterized by the ability to think something essential, concerning the existence of various things, including life and death, good and evil. Existential appears in the form of thinking and contemplation. Someone who is existentially intelligent tends to question the nature of life, look for the essence of every problem, reflect on various things or events that have been experienced, think about the wisdom or meaning behind events or problems, and review every opinion and thought. Existentially intelligent people tend to dare to express their beliefs and fight for the truth, are able to place the existence of something in a wider frame, always question the truth of a statement/event, have deep experiences about love for others and art, are able to place themselves in the broad cosmic, and have the ability to feel, dream, and plan big things (Hanaway, 2019).

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Methodology

This study uses descriptive qualitative methods with data collection techniques through interviews, observations, and documentation. The research location was carried out at Fatur Rochman Kindergarten, Permata Housing Block K, Purwakarta, Purwakarta Regency. The reason this research uses a qualitative approach is because it is in accordance with the purpose of qualitative research, namely to explore and understand the problems of individuals or groups that are the subject of research, for example behavior, motivation or other actions holistically (Creswell, 2012). In this study, the observed behavior is the implementation of the Montessori method to develop multiple intelligences for early childhood. Respondents in this study were the head of the kindergarten, teachers, and children. Primary data is data regarding the implementation of the Montessori method obtained from the Principal, Teachers, Students, TU, Parents. The secondary data of this study were sourced from books, report cards and teacher notes regarding the Montessori method. The data analysis technique uses field and post-field data assessment.

Result and Discussion

From the results of field observations and interviews with classroom teachers, the implementation of the Montessori learning method to develop multiple intelligences for early childhood at Fatur Rochman Kindergarten Purwakarta is based on three stages of learning, namely planning, implementing and evaluating the development of multiple intelligences in children aged 4-5 years in Kober. Al-akhyar is basically designed according to the needs of children while still paying attention to the stages of child development according to their age. The results of observations made about the implementation carried out in planning the development of children's multiple intelligences in Kober Al-akhyar were carried out by the teacher making RPPH (Daily Learning Implementation Plan) which aims to design and prepare learning activities to be carried out. The focus of the RPPH is to prepare everything needed in the implementation of learning starting from the preparation of the media to be used, the content of the material to be delivered, and the selection of themes. The material content created by the teacher is sentence instructions that will later be conveyed to children and the content of this material must be in accordance with the theme, sub-theme and topic. The activities that the teacher chooses when applying the Montessori method use very varied media because they adapt to the various themes that will be taught. The theme taken is like a cooking class.

Based on the results of interviews with classroom teachers and TK principal, Fatur Rochman, stated that the implementation of the implementation in developing children's multiple intelligences is to prepare a series of activities and media that will be used for tomorrow's learning. In addition, the selected media can stimulate children's multiple intelligences. The Montessori method stimulates children to be oriented to what they have and some of the training they have attended as well. According to the interview results, the teacher and principal of the Fatur Rochman Kindergarten also often attend various trainings that can improve the quality of their teaching, such as seminars held by several teacher organizations. very high priority. Some of the seminars they have attended in order to develop their potential are regioemilia seminars, nationally certified Montessori training, and also various

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educational seminars conducted online (Tabroni, 2019). Thus, the strategy undertaken by the principal and teacher of TK Fatur Rochman is to facilitate the development of superior human resources so that teachers will be ready to carry out learning activities effectively (Purnamasari et al., 2022).

Based on the results of observations, the implementation of implementation in developing the multiple intelligences of children in Fatur Rochman Kindergarten is carried out using the Montessori method in the implementation of learning for children aged 4-5 years. At this age, multiple intelligences must be developed to the fullest in order to give children self-confidence and independence.

Evaluation activities carried out in order to develop multiple intelligences of children aged 4-5 years at Fatur Rochman Kindergarten are by conducting light discussions after the children are picked up by their parents at school. According to the results of observations in the teacher's field, after all the children came home at 11.00 WIB, they immediately did school administration, such as assessing children and also making RPPH for tomorrow. In addition to making RPPH and making teacher assessments, they also evaluate the results of the activities that have been carried out, the teacher discusses with the principal about the activities that have been carried out and also the obstacles and obstacles felt by the teacher when teaching that day. Especially this evaluation is carried out to find out the progress of children's development, whether playing tanggram is too difficult for children 4-5 years old, or what stimulus needs to be given to children who are still difficult to communicate with (A. S. Lillard et al., 2005).

Based on the results of interviews with the principal, that this evaluation activity is an activity that must be carried out before the teacher leaves school, so that the school can also find out what obstacles are felt by the teacher during teaching, besides that with this evaluation it is also expected that the teacher can find answers from problems and obstacles in developing children's development and even developing children's plural intelligence as well. This evaluation activity is carried out in a non-formal way where while the teacher completes his duties the teacher can also freely discuss in a relaxed manner, after all the evaluation tasks and preparations for tomorrow's activities have been completed, the teacher is allowed to go home at 13.00 WIB.

Based on observations, there are several stages carried out in the learning process using the Montessori method. The stages in question are life skills / practical life, sensorial, verbal-language, mathematical, and cultural. The first stage is practical life which is applied to the cooking theme. Life practical is a learning activity to hone children's life skills by actively participating in cooking activities according to what they want. The teacher only gives instructions and provides knowledge about the types of cooking media and their uses. Furthermore, children do cook activities with what they want, children are trained to experiment and be creative according to what they want. Based on the results of interviews with teachers and parents, this practical life stage encourages children to have dexterity and life skills later. The experience of cooking is a learning that he will remember when he grows up, these life skill activities help children develop gross and fine motoric, kinesthetic and naturalist potential of children (A. S. Lillard et al., 2005).

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The next stage is sensorial which is a series of materials and methods used to develop all the senses that are owned. In cooking activities, children will use fine and gross motor skills. In addition, children use the five senses of sight, hearing, taste, touch and smell in the cooking activity. Thus, all of the child's senses are used optimally in the learning process. Montessori sensory training has three target outcomes: first, improving children's sensory abilities by training their discriminatory powers; second, improve sensory functions in general; third, building children's readiness to carry out more complex activities

The third stage is verbal language, which is the stage to develop communication skills. Cooking activities besides using sensory tools also train children to ask questions about how to use these cooking utensils, children will be able to ask the teacher and their friends about what obstacles and things they feel should be asked. Through direct practical activities, children will be able to develop their verbal-linguistics because they are given stimuli in the form of tools, media, and instructions from the teacher. This makes children able to develop verbal-linguistic intelligence, intrapersonal intelligence, and interpersonal intelligence. The expression is like the learning objectives in the field of language development which aims to make students able to express their thoughts through simple language appropriately, be able to communicate effectively and generate interest in being able to speak Indonesian properly and correctly. Giving vowel apperception to children using songs as the beginning of learning.

The fourth stage is mathematical, which is a montessori stage that aims to help children understand mathematical concepts, understanding simple arithmetic from abstract to concrete. Learning that is carried out in a simple way with several nominal numbers from one to five that is introduced to children does not burden the child. Because the introduction is done through a sense of happiness and enthusiasm in each child by singing together. Based on the results of observations and interviews, this mathematical stage is allocated to each learning theme, for example on the theme of cooking by practicing simple counting what children have cooked.

The fifth stage is culture which aims to provide opportunities for children to have basic scientific instincts with their environment. This stage invites children to explore and carry out simple experiments that are applied to the learning theme. Based on the results of observations, the teacher gives freedom to children for exploration activities in learning. For example, by providing space for children to be creative and doing small experiments in cooking activities. After that, give the opportunity for the child to tell about what he has done to the teacher and his friends. It aims to develop awareness and respect for others and the environment

References

Armstrong, T., for Supervision, A., & Development, C. (2009). *Multiple Intelligences in the Classroom*. Association for Supervision and Curriculum Development.

Beachner, L., & Pickett, A. (2001). *Multiple Intelligences and Positive Life Habits: 174 Activities for Applying Them in Your Classroom*. SAGE Publications.

Campbell, L., & Campbell, B. (1999). *Multiple Intelligences and Student Achievement: Success Stories from Six Schools*. Association for Supervision and Curriculum Development.

Canino, I. A., & Spurlock, J. (2000). *Culturally Diverse Children and Adolescents:*

ISBN: 978-623-92475-1-5
ISSN: 2963-1351

Assessment, Diagnosis, and Treatment. Guilford Publications.
Cassady, J. C., & Eissa, M. A. (2008). *Emotional Intelligence: Perspectives from Educational and Positive Psychology*. P. Lang.
Chen, J. Q., Moran, S., & Gardner, H. (2009). *Multiple Intelligences Around the World*. Wiley.
Creswell, J. W. (2012). *Educational Research: Planning, Conducting, and Evaluating Quantitative and Qualitative Research*. Pearson Education, Inc., Boylston Street.
Feez, S. (2009). *Montessori and Early Childhood: A Guide for Students*. SAGE Publications.
Fogarty, R. J., & Stoehr, J. (2008). *Integrating Curricula With Multiple Intelligences: Teams, Themes, and Threads*. SAGE Publications.
Gamble, T. K., & Gamble, M. W. (2013). *Interpersonal Communication: Building Connections Together*. SAGE Publications.
Hanaway, M. (2019). *The Existential Leader: An Authentic Leader For Our Uncertain Times*. Taylor \& Francis.
Hoerr, T. R., Rolheiser-Bennett, N. C., Bower, B., & Stevahn, L. (2000). *Becoming a Multiple Intelligences School*. Association for Supervision and Curriculum Development.
Kovalik, S. J., & Olsen, K. D. (2010). *Kid's Eye View of Science: A Conceptual, Integrated Approach to Teaching Science, K--6*. SAGE Publications.
Liebman, E. (2019). *Sequential Decision-Making in Musical Intelligence*. Springer International Publishing.
Lillard, A. S., Vu, A., & Montessori, R. (2005). *Montessori: The Science Behind the Genius*. Oxford University Press.
Lillard, P. P. (2011). *Montessori Today: A Comprehensive Approach to Education from Birth to Adulthood*. Knopf Doubleday Publishing Group.
Montessori, M., George, A. E., & Goodrich, J. (2003). *The Montessori Method*. Barnes \& Noble.
Purnamasari, R., Tabroni, I., & Amelia, R. (2022). Peran Nuclear Family Sebagai Support System Terhadap Pendidikan Anak. *Al-Madrasah: Jurnal Pendidikan Madrasah Ibtidaiyah*, *6*(3), 512. https://doi.org/10.35931/am.v6i3.1021
Tabroni, I. (2019). *MODEL PENDIDIKAN ISLAM: Teknik Mendidik Anak dengan Treatment di Era 4.0*. CV Cendekia Press.
Tirri, K., & Nokelainen, P. (2012). *Measuring Multiple Intelligences and Moral Sensitivities in Education*. SensePublishers.
Willis, J. (2007). *Brain-friendly Strategies for the Inclusion Classroom: Insights from a Neurologist and Classroom Teacher*. Association for Supervision and Curriculum Development.
Zepeda, S. J., & Mayers, R. S. (2014). *Supervision Across the Content Areas*. Taylor \& Francis.

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