Development of Self-Actualization and Religious Values of Children in the Field of Science

Umi Kamnah 1,*

1 Magister Early Childhood Education, Universitas Negeri Malang, Malang, Indonesia
* Corresponding author. Email: umikamnah1102@gmail.com

Abstract: This article aims to analyses the Science Value that is actualized into a child’s life and the religious value of a child. Therefore, the material objects of the research carried out are issues surrounding the relationship between science and children’s lives, especially specifically with regard to forms. Through the introduction of science, children are directed to constructing his knowledge of natural events (scientific processes) and having the drive to investigate, as well as having a positive attitude towards science. To attract children’s interest in learning science, each child is introduced to the way scientists work to get facts, concepts and theories. acknowledge the wider and in a person studying science, he will feel smaller as a creature when compared to God.

Keywords: science, actualization, children’s life, religious values

1. INTRODUCTION

Early Childhood Education (PAUD) as an education held before primary education, has a target group of children aged 0-6 years which is often called the golden age of development. PAUD is a huge investment for the family and nation. Education provided at an early age should be adjusted to the age of development, including one kindergarten or abbreviated as Kinder Garden (TK).

Minister of Education and Culture Regulation No. 137 of 2014 states that the scope of development according to the age level of children includes: aspects of religious and moral values, physical motor, cognitive, language, social emotional and arts. These six aspects are interrelated and must be simulated to the child in a playful and learning environment that is fun, so that the child can grow and develop optimally.

Children have their own uniqueness, in the realization of the provision of stimulation should pay attention to the characteristics and needs of children that vary according to the phase of growth and development. The environment around the child (parents, teachers, and the community) in this case must strive to facilitate and provide opportunities for children to explore through ways of observing, imitating, experimenting, and involving the full potential and intelligence of children.

Childhood is a fundamental phase in influencing individual development (Pratiwi, Andajani, & Putra, 2019). Experts reveal that childhood is a period of active learning, children do exploration of objects in their environment to gain experience and construct their knowledge. Childhood is a period of brain growth and development, which will determine the child’s next personality. Progress in science and technology has resulted. Changes and new demands such as potential human resources in facing challenges in the coming century. To overcome this problem, it is necessary to improve the quality of education. Improving the quality of education in kindergarten is actually inseparable from the approach in teaching and learning.

Through the introduction of science, children are directed to construct their knowledge about the existence of natural events (the process of science) and have the urge to carry out investigations, as well as having a positive attitude towards science. To attract children’s interest in learning science, each child is introduced to the way scientists work to get facts, concepts and theories (Nawawi, Mahanani, & Putra, 2018). For this reason, science needs to be introduced to children from an early age in accordance with the stages of child development.

In accordance with the abilities of kindergarten children, science process skills should be trained through simple experiments. The experiment trains children to connect the cause and effect of a treatment so that it trains children to think logically. Science learning activities in the development of science learning are also carried out by playing to create a pleasant atmosphere so that it attracts children to be actively involved in any science process skills they learn (Sukamti, Untari, Putra, & Devi, 2019). Science process skills should be needed by children in order to develop their knowledge about science. Through these science process skills, children can construct their own knowledge.
2. THE VALUE OF SCIENCE FOR DEVELOPING THE ABILITY OF ACTUALIZATION AND READINESS OF CHILDREN TO FILL THEIR LIVES

Science examines natural phenomena that occur in everyday life. Introducing science to children can be done by observing and investigating phenomena in the surrounding environment. Children can also be invited to learn science through games with various objects, such as water, paper, clay, leaves from trees around the school and so on. According to Suyanto (2005) the introduction of science to students of kindergarten and Roudlotul Athfal is carried out to develop the following abilities:

a. Exploration and investigation, namely activities to observe and investigate natural objects and phenomena.
b. Develop basic science process skills, such as making observations, measuring, communicating the results of observations, and so on.
c. Develop curiosity, pleasure, and want to do inquiry or discovery activities.
d. Understanding knowledge about various objects, both characteristics, structure, and function.

Consistently if the practices of developing science learning in children are packaged in such a way, then the maturity of the aspects of development in the child will be better. This means that the accumulation of the impact of learning science is developing, contributing positively to increasing the ability of children to actualize themselves in life broader. It also means, that conducive learning of science will be meaningful in preparing children as human resources and investing in the interests of national and state life (Mahanani, Putra, & Kristianingsih, 2018).

Other values, the development of conducive learning of science is now a sign of the formation of people who are ready to face their lives later better. The development of science learning that is conducive to early childhood is a sign of the availability of quality citizens in the future and a bright future for children (Putra, 2019). Dimensions of the development of science on the development of actualization and self-readiness:

a. Contribution / value: (1) assist the maturity of various aspects of development, so that the better and ready to use; (b) the accumulated impact of learning can increase the ability to actualize in a wider life; c) help prepare children as investments and human resources for a bright future.
b. Rationale / condition: Science activities are possible to be packaged in such a way and conducive that it is very meaningful and can be a predictor (sign) the formation of people who are ready to face their lives.

3. VALUE OF SCIENCE FOR CHILDREN’S RELIGIOUS DEVELOPMENT

Samatoa (2018) recognizes the wider and in a person studying science, he will feel smaller as a creature when compared to God. That is another value of science, it turns out that understanding of science is correlated with an increase in one’s religious awareness. Isaac Newton for example, the leading physicist likens himself as a child who was playing shells on the beach. While the vast expanse of the sea is like science. Also, Einstein, initially an atheist because of pursuing science became convinced of the existence of God.

All the benefits and values as presented above will be higher in value attached to the child if in its development interactions between children and nature and the environment are prepared and packaged in a programmatic manner and carried out with appropriate interventions and in accordance with the tasks of child development then a higher target will be achieved. Samatowa (2018) states, with the process of developing appropriate science learning in children, children will be accustomed to being honest and not easily prejudiced, being persistent and persevering in the face of adversity, can even foster religious values, namely gratitude and glorify it.

Dimensions of the development of science on the development and religious values of students:

a. Contributions / grades: (1) open the consciousness of human position before God. Through Science, he will feel increasingly smaller as a creature when compared to God; (2) increasing religious awareness and increasing appreciation for the existence of a creator; (3) increase gratitude and glorify God; (4) getting used to being an honest person and not easily prejudiced; and (5) trained to be persistent and persistent in facing difficulties.

b. Rationale / condition: Science activities provide a variety of things, both objects or the environment (which incidentally as God’s creation) to be investigated, revealed, and explored religiously. Example: Isaac Newton (physicist) likens himself as a child playing with shells on the beach, whereas the ocean is like science. Also, Einstein, originally an atheist, for pursuing science became convinced (Samatowa, 2018).

4. CONCLUSION

Science examines natural phenomena that occur in everyday life. Introducing science to children can be done by observing and investigating phenomena in the surrounding environment. Children can also be invited to learn science through games with various objects, such as water, paper, clay, leaves from trees around the school and so on.
The wider and in a person studying science, he will feel smaller as a creature when compared to God. That is another value of science, it turns out that understanding of science is correlated with an increase in one’s religious awareness. Isaac Newton for example, the leading physicist likens himself as a child who was playing shells on the beach. While the vast expanse of the sea is like science. Also, Einstein, initially atheists because of pursuing science became convinced of the existence of God.

REFERENCES
[1] Kementerian Pendidikan dan Kebudayaan. Peraturan Menteri Pendidikan dan Kebudayaan Republik Indonesia Nomor 137 Tahun 2014. 2015
[2] Samatowa, Usman. 2018 Metodologi Pembelajaran Sains.Tangerang : Tira Smart.
[3] Pratiwi, I., Andajani, K., & Putra, A. P. (2019). Promotion of media literacy for the early childhood’s parents. Indian Journal of Public Health Research and Development, 10(6). https://doi.org/10.5958/0976-5506.2019.01498.0
[4] Mahanani, P., Putra, A. P., & Kristianingsih, K. (2018, September). Analysis of the Influence of Understanding the Pancasila Values of Teachers on Learning in Elementary School BT - 1st International Conference on Early Childhood and Primary Education (ECPE 2018). 168–172. https://doi.org/https://doi.org/10.2991/ecpe-18.2018.37
[5] Sukamti, Untari, E., Putra, A. P., & Devi, A. C. (2019). Innovation of project base learning (PjBL) on outdoor study for PGSD’s student activity on education diffusion. International Journal of Innovation, Creativity and Change, 5(5).
[6] Suyanto, 2005. Konsep Dasar Anak Usia Dini : Jakarta : Departemen. Pendidikan Nasional.
[7] Samatowa. 2018. Pembelajaran IPA di Sekolah Dasar. Jakarta: PT Indeks.
[8] Putra, A. P. (2019). Pengembangan multimedia interaktif pada pembelajaran tematik kelas V tema Sejarah Peradaban Indonesia. SKRIPSI Mahasiswa UM.
[9] Nawawi, I., Mahanani, P., & Putra, A. P. (2018, September). A Learning Journal to Improve the Ability of Students in Critical Thinking BT - 1st International Conference on Early Childhood and Primary Education (ECPE 2018). https://doi.org/https://doi.org/10.2991/ecpe-18.2018.20
[10] Yulianti, Dwi. 2010. Berman Sains Belajar Sains di Taman Kanak-Kanak. Jakarta : PT Indeks.
[11] Agustina, N. E., Sumarsono, R. B., & Gunawan, I. (2018, September). Implementation of School and Community Relationship Techniques (A Case Study in SDN Karangbesuki 2 Malang, Indonesia). In 1st International Conference on Early Childhood and Primary Education (ECPE 2018). Atlantis Press.
[12] Bafadal, I., Nurabadi, A., & Gunawan, I. (2018, December). The Influence of Instructional Leadership, Change Leadership, and Spiritual Leadership Applied at Schools to Teachers’ Performance Quality. In International Conference on Education and Technology (ICET 2018). Atlantis Press.
[13] Gunawan, I. (2016). Perspectives of Pancasila: Leadership Education’s Values and Ethics’. 2nd ICET Theme: “Improving the Quality of Education and Training Through Strengthening Networking, 417.
[14] Bafadal, I., Juharyanto, J., Nurabadi, A., & Gunawan, I. (2018, October). Principal Leadership and its Relationship with Student Learning Achievements: A Regression Analysis. In 3rd International Conference on Educational Management and Administration (CoEMA 2018). Atlantis Press.
[15] Gunawan, I., Kusumaningrum, D. E., Triwiyanto, T., Zulkarnain, W., & Nurabadi, A. (2018, October). Hidden Curriculum and its Relationship with the Student Character Building. In 3rd International Conference on Educational Management and Administration (CoEMA 2018). Atlantis Press.
[16] Gunawan, I. (2017, August). The Application of Instructional Management Based Lesson Study and its Impact with Student Learning Achievement. In 2nd International Conference on Educational Management and Administration (CoEMA 2017). Atlantis Press.
[17] Kusumaningrum, D. E., Sumarsono, R. B., & Gunawan, I. (2016). Principal Empowerment Through Soft System Methodology Approach. 2nd ICET Theme: “Improving The Quality Of Education And Training Through Strengthening Networking”, 195.
[18] Gunawan, I., Kusumaningrum, D. E., & Sumarsono, R. B. (2019, December). Investigation of Principal Leadership Based on Pesantren: Descriptive Study about Implementation of Human Resources Empowerment Models Based on Soft System Methodology. In the 4th International Conference on Education and Management (COEMA 2019). Atlantis Press.
[19] Andrininingrum, H., & Gunawan, I. (2018, December). Cultivation of Healthy Life for Students in School: A Literature Review. In International Conference on Education and Technology (ICET 2018). Atlantis Press.
[20] Argadina, H., & Gunawan, I. (2019, December). The Leadership of Pancasila in Education: Foundation for Strengthening Student Characters in the Industrial Revolution Era 4.0. In the 4th International Conference on Education and Management (COEMA 2019). Atlantis Press.
[21] Saputra, B. R., Adha, M. A., Ariyanti, N. S., & Gunawan, I. (2019, December). Tips for Principal in Managing One Roof School (SATAP) in Underdeveloped Area. In the 4th International Conference on Education and Management (COEMA 2019). Atlantis Press.
[22] Putri, A. A. F., Putri, A. F., Andrininingrum, H., Rofiah, S. K., & Gunawan, I. (2019, December). Teacher Function in Class: A Literature Review. In 5th International Conference on Education and Technology (ICET 2019). Atlantis Press.