

# STEAM Against Early Childhood Art at PAUD IT INSAN CENDEKIA BANJARSARI SURAKARTA

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**Abstract:** PAUD Insan Cendekia uses the STEAM method, which in learning at PAUD Insan Cendekia uses the Music and Body Exercise Center in the Foothold When Playing in Music and Body Exercise. After students move their bodies sufficiently with the developmental aspects they have achieved, they enter music games, where they are introduced to various kinds of musical instruments, for example, mini tambourines, mini jimbres, maracas, xylophones, and angklung. Students are invited to play simple music and follow the beats given by the teacher. The focus of this research is how the STEAM learning process in art learning is carried out by the teacher. In this study, using a qualitative descriptive methodology, by collecting data through observation techniques, interviews, and documentation. Data analysis techniques in this study were carried out by collecting data, reducing data, presenting data, and drawing conclusions. The art learning process using STEAM makes students more interested and creative because the musical instruments they play use items from the surrounding environment that will later be made into musical instruments, and students are very happy about this. Teachers and students always synergize when conducting learning in class. Students are invited to sing, and then the teacher explains briefly the meaning or moral message contained in the song. Then I asked my children to sing the song again. To instill character values in students at PAUD IT Insan Cendekia Surakarta, namely by setting an example and getting into the habit of doing good things.

**Keywords:** *STEAM, art learning, AUD*

## Introduction

Education plays the most important role in producing superior human resources; quality education will produce superior human resources. Education is an element that is of concern to all roles involved; both the government and educators and parents need to have a commitment to improving the quality of education. One level of education that is the basis for teaching critical thinking skills is early childhood education. Early childhood education is the first step for children to continue at the next level of education. The early childhood education level is the beginning of a child's formation, and the golden age for a child is at the early childhood level. Ariyanti, T. (2016) explains that a child in early childhood is in a sensitive period range, and in this period specifically, children will be faster at accessing their environment. Children who get education according to their needs will experience appropriate growth and development. There is an integrated approach with scientific disciplines for early childhood, namely learning with the STEAM approach (Science, Technology, Engineering, Art, and Mathematics). STEAM stands for science (science), technology (technology), engineering (engineering), art (art), and math (mathematics). STEAM is explained by Irmatani L. et al. (2019) as a learning approach that is able to stimulate curiosity and motivation for children to have problem-solving skills, collaboration, and independent learning through project-based learning, challenge-based learning, and research. Learning with the STEAM approach requires the ability to think critically. This is because children are faced with activities that demand the ability to remember, understand, apply, analyze, evaluate, and design so that they are able to communicate what has been produced (Yuliati, S., 2013). Art education involves all forms of activity in the form of physical activity and a sense of beauty contained in activities of expression, exploration, appreciation, and creation through motion, appearance, and sound. As Pekerti (2012: 18) said, art for children is fun play, expression, and creative activities. Without realizing it, children learn many things through art activities. Through art education, children can actualize themselves, use their talents, and become what they are capable of according to their potential (Munandar, 2012: 18).

PAUD Insan Cendekia is one of the institutions in Surakarta that uses the STEAM learning method. PAUD Insan Cendekia uses the STEAM method, which in learning at PAUD Insan Cendekia uses music and body exercise centers in the foothold. When playing music and doing body exercise, students are invited to move first with a variety of games such as marble relay, clog racing, throwing and catching balls, etc. After students move their bodies sufficiently with the developmental aspects they have achieved, they enter music games, where they are introduced to various kinds of musical instruments, for example, mini tambourines, mini jimbres, maracas, xylophones, and angklung. Students are invited to play simple music and follow the beats given by the teacher. Then students imitate the beat. In the music games in PAUD Insan Cendekia, the musical instruments used in music learning are musical instruments made from loose parts or used tools, or musical instruments made from local waste that is easy to get. In this lesson, we use used gallons, closed pots, used bottles, spoons, and so on, which are played together and become a musical accompaniment that can be heard. From what has been said before, the researcher wants to examine further the art learning that is carried out at Insan Cendekia PAUD. The researcher wants to find out how art learning is done by the teacher in class in an effort to teach or provide experience in playing the art.

### **Research Methods**

This study uses a qualitative descriptive method, meaning that the problems discussed in this study describe conditions or phenomena, in this case STEAM learning in art learning at Insan Cendekia PAUD. In this study, the data obtained is qualitative. Therefore, the analysis used is a descriptive-qualitative analysis. The process of data analysis is carried out through the processes of data reduction, data presentation, and drawing conclusions or verification.

### **Results And Discussion**

The PAUD IT Insan Scholar was established in 2009. The need for more stimulation at the age of 2-4 years and parents' requests for all play groups led us to open KB-IT Insan Scholar in 2010. After graduating from two batches of play groups, it was also an obstacle for parents to find a kindergarten that was in accordance with the stimulation given at Insan Scholar. So, at the request of the community and the parents, in 2013, we started the kindergarten program.

#### **A. Characteristics of PAUD IT Insan Cendekia**

The golden age is between the ages of 0 and 6 years; therefore, children must be given a lot of stimulation for their physical, social, intellectual, and emotional growth and development so that they grow and develop optimally. For this growth and development, the family environment is not enough for a child to channel his energy, express his emotions, and develop his creativity. Currently, many parents, especially mothers, work outside the home, so they simply transfer the education and care of their children to caregivers at home, while if they do not have the basics of early childhood education, it will be detrimental to the growth and development of these children. So the need to provide love, proper nutrition, and stimulation is very necessary for early childhood so that they can grow and develop optimally.

Children are a mandate from Allah SWT, which is valuable for every family. Good parenting and the habituation of Islamic life according to the Qur'an and As Sunnah really need to be used as early as possible because this will affect the growth and development of a child. As the foundation of life, children must see, hear and imitate correct and Islamic actions, especially from the child's immediate environment. This immediate environment includes family and culture as well as social life that develops and takes place around the place where the child is raised. This will be the initial capital for children to learn to communicate and socialize. The verse above illustrates that humans must think through God's creation in the earth and sky, which is very useful for human life. So creativity and innovation are needed to develop these natural resources for the benefit of the ummah. The two verses of the Qur'an above are our basis for formulating a curriculum that is structured by carrying out religious-science values as the basis for developing the character of students who believe in piety to Allah SWT, are polite and polite in behaving in an Islamic manner who are confident, independent, and responsible, and not easily give up in producing a work that is creative, innovative discipline according to children's talents and interests. Recognizing the importance of early childhood education as a period of character building for children, the Insan Cendekia Early Childhood Education Institution (LPAUD)

which has Daycare, Playgroup and Kindergarten programs tries to educate and care for children with all love to accustom them to Islamic behavior. from an early age through example and daily habituation, without neglecting aspects of growth and development according to their age. In addition to habituation of Islamic behavior, the development of children's basic abilities which include social skills, language, motor and cognitive, art as an effort to optimize the development and potential they have, as well as efforts to instill independence in them from an early age. Playing is a stimulation that can be given to early childhood. Basically playing is a child's need, because with it children can explore their curiosity about the environment around them. By playing too, we, as educators, can develop children's intelligence. We can develop not only one intelligence; we can even stimulate children with a game that can stimulate more than one intelligence. Given the unique character of children, all activities held are based on aspects of "playing while learning" and "learning while playing, where through playing activities children absorb various knowledge and information provided by their supervisors. In accompanying children in their important period, PAUD-IT Insan Cendikia packages activities carried out in a pleasant learning atmosphere that refers to Permendikbud 137 of 2014 and Permendikbud 146 of 2014, which are combined with the typical curriculum of scholars, namely religious science. The institution also has its own characteristics, namely those based on religious and scientific values. We want to raise children who adhere to their religion and become scientists who will color the world. Therefore, a curriculum is needed to design learning that supports the vision, mission, and goals of PAUD-IT Scholarly Personnel.

### **B. STEAM Learning at Early Childhood Education IT Insan Cendikia**

Learning with STEAM content is preparation for children to be ready to welcome civilization in the 21st century. Science (natural science) is learning that is obtained systematically through observation, study, and experimentation. Activities that must be carried out by teachers in science learning for early childhood are: 1) planning science experiences in relation to the physical, social, moral, emotional, and cognitive development of children; 2) developing a science curriculum that reflects the needs of each child; and 3) starting to plan science study units that integrate other fields of study. Technology is a tool that is around humans to support human life. Therefore, children in early childhood are expected to be able to understand the names and functions of every technology they encounter in their lives. Children can use it according to its function and can develop according to their imagination. Any equipment used by children to play is technology, from simple technology to modern technology to simple machines that children can encounter in everyday life. It needs to be ensured that the technology is appropriate for the child's age, can be used according to the child's will, and provides opportunities to solve problems.

Engineering can be interpreted as the engineering of technology. Engineering starts by identifying a problem and then trying to solve it. For example, children experience a process when they try to figure out how to make a strong foundation so that their building blocks can be taller (Siantajani, 2018).

Art or expressive arts include drawing, painting, sculpture, architecture, music, literature, drama, and dance. Art adds richness to life, elevating our thoughts and feelings beyond the mundane events of our everyday lives. In the world of early childhood, expressive art is all this and more. The arts stimulate cognitive, social, emotional, and physical development in early childhood. Young children participate in music by singing, listening, moving, composing, playing, and even making their own instruments. Children's visual arts include drawing, painting of all kinds, various types of sculpture, and working with clay or similar materials. Children's abilities in art-related experiences are influenced by their level of development, and conversely, the arts curriculum contributes to all areas of child development.

Mathematics encompasses a wide range of subfields, skills, and systems, many of which are appropriate for young children to learn in some form. Among the more commonly taught topics are classification, serial, calculation, measurement, geometry, charting, and arithmetic (Krogh, S.L., & Slentz, 2008). Activities implemented by teachers in the field of mathematics for early childhood, namely:

Plan math activities to stimulate children's physical, social, and cognitive development; plan math activities taking into account the needs of each child; and incorporate math activities into all curriculum are.

The STEAM learning content carried out at Insan Cendekia PAUD includes activities on the following basis: Chairs are not arranged in a row. The blackboard can be moved. Learning is not only in class, Play equipment is anywhere (according to classification), Children explore, create, look for new ways of solving problems, Play activities always aim to hone children's communication skills and critical thinking. Child-

centered learning activities and the teacher as a facilitator, Children express their opinions actively; children try to dare to take risks; Children are always involved in experiential learning. Children can cooperate. Children learn through a creative process. They make projects with their own ideas and creations. The process of learning art in PAUD IT Insan Cendekia is through music and physical education centers. In the beginning, when playing in music and sports centers, students are invited to move first with a variety of games such as throwing balls, clogs, marble relay, jumping, and so on. After the children have enough to move their bodies, students are introduced to various kinds of musical instruments in the IT Insan Cendekia PAUD, namely mini tambourines, xylophones, mini jimbres, and angklung. In addition to these musical instruments, PAUD IT Insan Cendekia provides musical instruments made of loose parts such as spoons, gallons, panic caps, syrup bottles, plastic bottles, pebbles, and so on. To play these musical instruments, the teacher first prepares them and arranges them as attractively as possible. so that children are interested in playing it. Then the teacher explains the various musical instruments and how to play them.

Before playing, the children are invited to make a mutual agreement. The teacher gives an example so that the children do not scramble to choose a musical instrument. Then the children also gave their own agreements; some said they were not allowed to throw; if they borrowed, they had to get permission; they were not allowed to hit friends; and so on. After the teacher and the children made an agreement with them, one by one they chose the musical instrument to be played. The teacher begins to give a beat so that the children can follow how to play the musical instruments that are held by each child. The teacher must understand the rhythm that will be used when singing a song. When playing the angklung musical instrument, the children bring an angklung to play, and then the teacher gives the order of which angklung to sound. There is no specific method for teaching music to students. Because in PAUD IT Insan Cendekia, there are no extra music teachers. In PAUD IT Insan Cendekia, the teacher teaches music in a self-taught way, namely by watching lessons on YouTube. The teacher then learns it and then applies it to students.

### **C. ART LEARNING AT PAUD IT INSAN CENDEKIA**

Early childhood education is education, which is the starting point for entering further education. By implementing education as early as possible, education can be an investment in the future. With this education, we can pursue goals in the field we want. Therefore, a good education is one that pays attention to the interests and talents of children. Early childhood education is a coaching effort that is carried out through the provision of educational stimuli to promote physical and spiritual growth and development. However, not many parents are able to foster the growth and development of their children. They sometimes pay less attention to the talents and interests of the child. In fact, according to early childhood development psychologists, the age of 0–6 years is the golden age, namely the golden age in the development of the whole human being. Music arts education as a field of study has the aim of equipping students to develop personal abilities. This personal ability contains self-development material and is rote in nature, so the knowledge and information received by students are limited to rote products. Music lessons at PAUD IT Insan Cendekia can be in the form of singing while dancing, reading simple rhythmic beats, and playing simple musical instruments. Music lessons can train children's motor nerves to move, can expand and strengthen children's memory so as to help develop children's language skills, and can increase the level of concentration (focus) so that it helps children more easily interact with others. Early childhood learning is essentially about children learning through play; therefore, learning in early childhood is basically playing while learning, meaning that children learn in fun, active, and free ways. Free means not based on other people's orders or targets and having discretion when it starts and when it ends. In accordance with the characteristics of children in early childhood who are active in carrying out various explorations of their environment, play activities are part of the learning process. Learning in early childhood must be designed so that children do not feel burdened by achieving their developmental tasks. So that the learning atmosphere does not burden and bore children, it needs to be made natural, warm, and fun. Playing activities that provide opportunities for children to interact with friends and their environment are prioritized. In addition, because children are unique and very varied individuals, the elements of individual variation and children's interests also need to be considered.

### **Conclusion**

Based on the results of the research and discussion, it can be concluded that the art learning process using the STEAM method makes students more interested and more creative because of the musical



instruments they play. The art of simulating cognitive, social, emotional, and physical development in early childhood. Young children participate in music by singing, listening, moving, composing, playing, and even making their own instruments. Students are very happy about it. Teachers and students always synergize in carrying out learning in class, where students are invited to sing and then the teacher explains briefly the meaning or moral message contained in the song. Then I asked my children to repeat the song. To instill character values in students at PAUD IT Insan Cendekia Surakarta, namely by setting an example and getting used to doing good things.

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