



Contextual-Based Development of Early Children's Learning In the Era of the Industrial Revolution 4.0

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ABSTRACT

The world has now entered the era of industrial revolution 4.0, or the fourth industrial revolution, where information technology has become the main basis in human life. This research aims to: (1) describe early childhood Islamic learning in PAUD Palopo City; (2) describe contextual learning; (3) find a factual model of contextual-based learning; (4) find a contextual development model (draft) of early childhood Islamic learning. This research is a development research (R&D). The research was conducted in PAUD Parama Bunda, Libukang Permai, and Aisyah Bustanul Athfal Palopo City. Informants in this study were education managers, principals, educators, and related parties who supported the research data. Data collection techniques used in-depth interviews, participatory observation, and documentation studies. Retrieval and checking the validity of data using triangulation techniques, reviewing key informants, and checking with members. Data analysis techniques used data reduction, data presentation, and conclusion drawing. Early childhood learning in Palopo City PAUD generally refers to service standards in organizing PAUD learning. Contextual-based learning planning is prepared in the form of curriculum, syllabus, semester program, weekly learning implementation plan (RPPM), daily learning implementation plan (RPPH). In practice, this learning is integrated with contextual learning. The contextual learning model is presented to the stakeholders involved for feedback and suggestions for improvement. The factual model was then revised and enriched in the form of a development model (draft) to make it easier to implement.

Keywords: Development Model, Learning, Early Childhood, Contextual

INTRODUCTION

Changes in the world are now entering the era of industrial revolution 4.0 or the fourth world industrial revolution where information technology has become the basis of human life. Preparing quality graduates who are able to compete globally, and master technological developments is important for everyone and important for the future of a country (Kanematsu & Barry, 2016). Thus, the support and role of higher education is expected to increase the competitiveness of the Indonesian nation amidst global competition with the rapid development of information technology (Deffinika et al., 2021).

The flow of globalization is unstoppable in entering Indonesia. Accompanied by increasingly sophisticated technological developments, the world is now entering the era of industrial revolution 4.0, which emphasizes digital economy patterns, artificial intelligence, big data, robotics, and so on or known as the phenomenon of disruptive innovation. Facing these challenges, teaching in higher education is also required to change, including producing quality learning for future generations (Schwab, 2017).

Minister of Research, Technology and Higher Education (Menristekdikti) Mohamad Nasir explained, based on an initial evaluation of the country's readiness to face the industrial revolution 4.0, Indonesia is estimated as a country with high potential (SE et al., n.d.). Even though it is still below Singapore, at the Southeast Asian level Indonesia's position is quite calculated. Meanwhile, regarding the global competitiveness index at the 2017-2018 World Economic Forum, Indonesia is in 36th position, up five places from the previous year's 41st position out of 137 countries.

In a verse, QS al-Nisa` (4): 9, Allah says:

وَلْيَخْشَ الَّذِينَ لَوْ تَرَكَوْا مِنْ خَلْفِهِمْ ذُرِّيَّةً ضِعَافًا خَافُوا عَلَيْهِمْ فَلْيَتَّقُوا اللَّهَ وَلْيَقُولُوا قَوْلًا سَدِيدًا

Translation: "And let them fear (Allah) those who should leave behind them weak children, whom they fear for their welfare. Therefore, let them fear Allah, and let them speak the truth."

Based on the verse above, it is very important for parents in particular and universities in general to be able to prepare a generation that is able to compete in this era. Of course, this generation in higher education are students who are prepared to compete in the world of work. Apart from that, it is also necessary to improve the quality of learning in terms of implementation, evaluation, testing, feedback and results. In this case, the learning developed at IAIN Palopo, especially in the PIAUD Study Program, is expected to be able to accommodate the changes and growth of the very rapid era known as the disruptive era (Biggs et al., 2022). Suparman (1991) said that learning development is a systematic process including problem identification, development of strategies and instructional materials, as well as evaluation of strategies and instructional materials in achieving learning goals effectively and efficiently (Irviana, 2020).

According to Susdiyanto, Saat, and Ahmad (2009: 27), contextual learning is a learning process that starts from the process of activating existing knowledge, in the sense that what will be learned cannot be separated from the knowledge that has been learned, so that the knowledge that students will obtain is complete knowledge that is related to each other (Brown & Palincsar, 2018).

Contextual learning is learning that is oriented towards creating as close as possible to "real world" situations (Sarker, 2021). Through contextual learning, it can help teachers link the material taught with real situations, so that it can help students understand the lesson material. In this regard, Suprijono (2011: 79) explains that contextual learning or Contextual Teaching and Learning (CTL) is a concept that

helps teachers link the material taught with real world situations and encourages students to make connections between the knowledge they have and its application in their lives. as members of family and society (Lotulung et al., 2018). This explanation can be understood to mean that contextual learning is a strategy used by teachers to convey lesson material through the process of providing assistance to students in understanding the meaning of the lesson material they are studying by connecting it to the context of their own lives in the social and cultural environment of society. Thus, contextual learning (CTL) is a holistic educational process and aims to motivate students to understand the meaning of the subject matter they study by linking the material with the context of their daily lives (personal, social and cultural context) so that Students have knowledge/skills that can be flexibly applied (transferred) from one problem/context to another problem/context.

childhood education as one of the keys to determining the future of the nation plays an important role in the learning process. This is further strengthened by the issuance of Regulation of the Minister of Education and Culture Number 137 of 2014 concerning PAUD Standards Article 9 concerning content standards which require themes and sub-themes to be arranged according to the child's characteristics, needs, stage of development and local culture. On this basis, contextual-based PIAUD learning management must be utilized so that children can grow and develop optimally.

Based on the background above, the main focus of this research is "finding a draft contextual-based learning model in Palopo City PAUD". This focus is further broken down into 4 sub-focuses as follows: a) Early Childhood Islamic Learning in Palopo City; b) Contextual Learning in PAUD Palopo City; c) Contextual based learning model; c) contextual-based early childhood learning development model (Draft).

This research is a type of development research or research and development (R & D). According to Sutama (2012: 183) research and development is a process or steps to develop a new product or improve an existing product that can be accounted for. Sugiyono (2014: 407) adds that the development research method is a research method used to produce certain products, and test the effectiveness of these products.

Researchers conducted research at the early childhood education institutions Paramata Bunda, Libukang Permai, and Aisiyiah Bustanul Athfal Peta Palopo. This research lasted for two months, from September to October 2019. Researchers carried out direct observations and direct interviews with the three institutions. Researchers chose informants from teachers to obtain accurate information related to the learning process. Recording primary data sources through interviews or observations, taking part, is the result of a combined effort from the activities of seeing, listening and asking questions.

The stages of development research according to Borg and Gall (1989) quoted by Sutama (2012: 185) include 10 steps for implementing this research procedure adapted from the development steps carried out by Borg and Gall with limitations. The implementation of development steps is adjusted to the needs of researchers. This research has only reached the preliminary stage and the preparation of a draft development model. Data validity was carried out in order to test the validity of the research data which was carried out using several techniques, including discussions with PAUD educators, school principals and school supervisors from the education service who specialize in PAUD. Source triangulation techniques are carried out to increase the validity of data from several different sources regarding the same problem. Activities in data analysis are data reduction, data presentation, and conclusions/verification.

This research introduces a contextual approach applied to early childhood learning, which is adapted to the needs and characteristics of children in the era of the Industrial Revolution 4.0. This approach has rarely been explored, particularly in Indonesia, and is a significant novelty aspect of this research. In addition, this research integrates the latest technology into the early childhood curriculum to enhance their engagement and understanding of the learning materials. The main focus of this research is on the development of 21st century skills such as creativity, critical thinking, collaboration and digital literacy, which are still rarely discussed in the context of early childhood education in the era of the Industrial Revolution 4.0.

The main objective of this research is to develop a contextual-based learning model that is relevant to the needs of early childhood in the era of the Industrial Revolution 4.0, with the hope of improving children's learning quality and outcomes. The research also aims to evaluate the impact of using technology in early childhood learning, including how technology can help develop children's basic skills and 21st century skills. In addition, this research develops learning strategies that can improve 21st century skills in early childhood, such as critical thinking, creativity, collaboration and digital literacy, so that they are ready to face future challenges. The adaptation of learning methods and materials to the local context and specific needs of children in the era of the Industrial Revolution 4.0 is also a focus, so that learning becomes more relevant and effective.

RESEARCH METHODS

This type of research is development research (R&D). Research and Development (R&D) is a process or series of steps to create new products or improve existing products. This approach is often applied in the industrial world to produce innovations and improve product quality (Mesra, 2023). The case study of this research is at PAUD Parama Bunda, Libukang Permai, and Aisyiah Bustanul Athfal Palopo City. Data collection techniques were in-depth interviews, participatory observation and documentation studies. Retrieval and checking of data validity using triangulation techniques, key informant review and checking with members. Data analysis techniques used data reduction, data presentation and conclusion drawing.

RESULTS AND DISCUSSION

Early Childhood Learning in PAUD Palopo City

Learning planning at PAUD Paramata Bunda, Libukang Permai and Aisyiah Bustanul Athfal Palopo City Map was prepared jointly between managers and educators to develop the curriculum and learning syllabus. The curriculum and syllabus are used as a reference in determining learning activities in accordance with the themes and sub-themes planned for each academic year. Contextual-based learning planning prepared at PAUD Paramata Bunda, Libukang Permai and Aisyiah Bustanul Athfal Map of Palopo City in the form of curriculum, syllabus, semester program, weekly learning implementation plan (RPPM) and daily learning implementation plan (RPPH) (Rahman, 2023). Contextual learning is integrated directly into each theme and sub-theme that is prepared, explained in the choice of media in children's learning activities.

Based on the results of interviews with educators and managers at PAUD Paramata Bunda, Libukang Permai and Aisyiah Bustanul Athfal Peta Palopo City, the learning method used in these two institutions (Paramata Bunda and Libukang Permai) is a center where learning is carried out through play in several centers, namely the preparation center. , role play centers, block play centers, natural materials centers. Educators accompany the games at each center according to the learning schedule. Meanwhile, PAUD

Aisyiyah Bustanul Athfal Peta uses the circle learning method where learning is carried out in one place and educators accompany children when playing while learning.

Evaluation is carried out in the learning process by providing comprehensive notes, observations, anecdotal notes, children's work, assignments and portfolios. Assessment options are adjusted to the abilities of educators and the infrastructure support that each institution has. The assessment mostly describes the child's developmental achievements according to assessment guidelines based on Permendikbud number 137 of 2014 concerning national PAUD standards. Educators observe children's daily learning activities in accordance with the learning theme, namely animals, by making anecdotal notes about every incident carried out by children, compiling a portfolio which is then accompanied by a comprehensive assessment narrative with categories BB (children have not yet developed), MB (children have starting to develop), BSH (child developing according to expectations), and BSB (child developing very well) which covers various aspects of child development to then be distributed to the child's guardian at the end of each semester.

Contextual Learning in PAUD Palopo City

Contextual learning at PAUD Paramata Bunda, Libukang Permai, and Aisyiyah Bustanul Athfal Peta Palopo City is learning that has been and continues to be carried out in the process of children's growth and development at these institutions. The materials around the child's environment become a source of learning for the child. The theme that children studied at that time was animals. Children can name the animals around them and those in their house (Moore, 2017).

Contextual learning by educators is carried out when preparing learning plans, both weekly (RPPM) and daily (RPPH) (Purwani, 2023). The themes raised are animals with sub-themes of animals that live in water (fish, frogs) and insect animals (mosquitoes, flies, ants, cockroaches, butterflies, bees). In the implementation process, educators invite children to see or observe animals in the pond near the school or animals around the children's learning environment and ask children to name insects that they have seen in their homes.

Material about animals can be the basis for contextual learning. By studying animals that live in water (fish, frogs) and insect animals (mosquitoes, flies, ants, cockroaches, butterflies, bees) you can teach children that these animals are also part of God's creation whose existence has benefits for them. man. By studying animals, children can know and know which animals live in water and types of insects and can describe or describe them either through pictures, works or by telling stories.

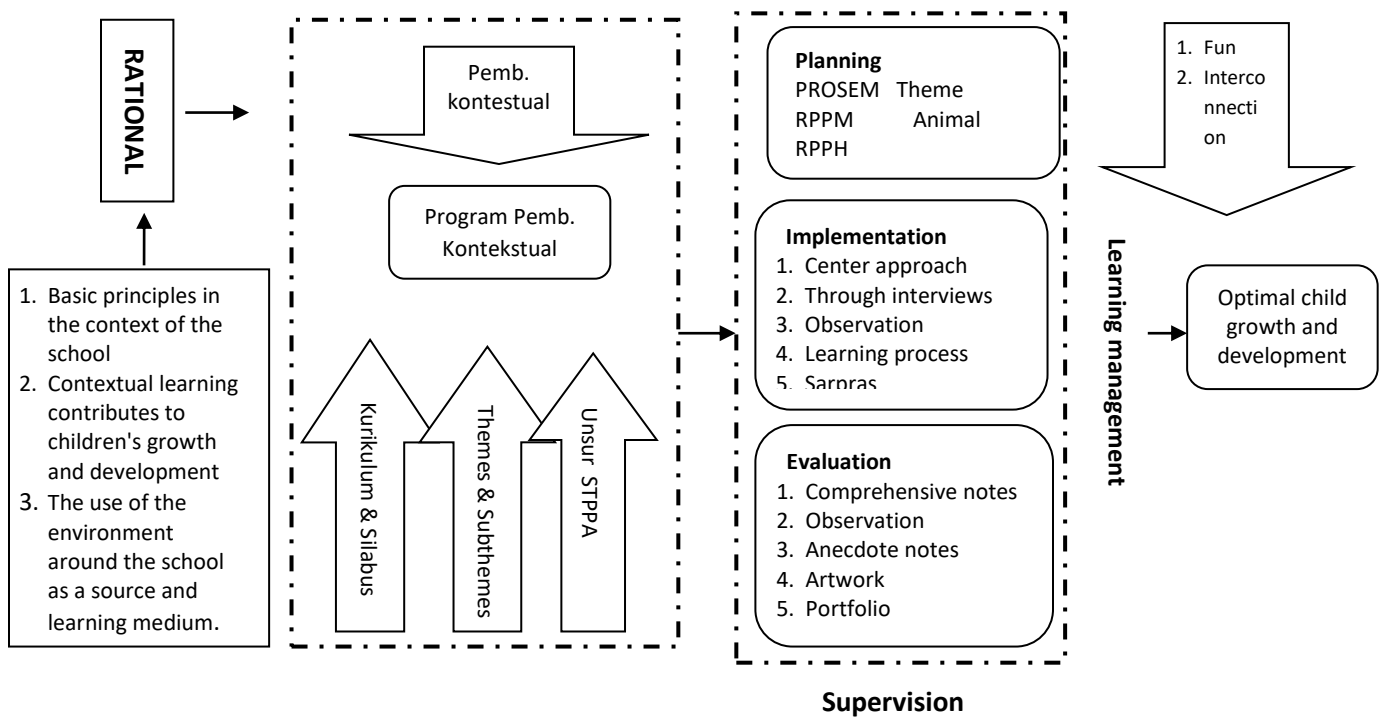
The learning that takes place at PAUD Paramata Bunda is learning about animals that live in water, for example fish. Children can name the types of fish they usually see or eat. Some of them even keep fish in their home ponds. Children can make fish using origami paper. Furthermore, learning at PAUD Libukang Permai also discusses animals that live in water, namely fish and frogs. The children take turns naming the types of fish they know to the teacher. Likewise with children who name frogs they have seen. Children can also draw fish. Learning at PAUD Aisyiyah Bustanul Athfal takes the sub-theme of insects (mosquitoes, flies, ants, cockroaches, butterflies, bees). The children take turns naming the animal. Some say there are lots of mosquitoes in their house, others say they usually see lots of ants. Children are generally afraid of flies and cockroaches because they carry diseases. Apart from that, some children imitate the style of a butterfly and they name the color of the butterfly they see. There are also children who say they usually see bees but don't dare to approach them because they are afraid of being stung. Through contextual learning, children can link the knowledge they have with their real world. Children can name the types of animals that live in water and insects according to what they experience.

Factual model of contextual-based Islamic learning for early childhood

The factual model of contextual-based early childhood Islamic learning is a learning model that has been and is taking place in PAUD Paramata Bunda, Libukang Permai and Aisyiyah Bustanul Athfal Peta Palopo City. Contextual-based model planning requires educator competence in integrating external information with the learning plans that will be prepared. Contextual learning needs to be paired with children's real world so that it can be adapted to students' learning needs (Rahmawati et al., 2022).

The early childhood Islamic learning model that is integrated with contextual learning is a pattern of learning integration that places the child's real world as a learning resource. The surrounding environment and children's initial knowledge become effective media in the learning process that can support children's growth and development.

The preparation of a contextual-based learning model is based on experiences carried out at PAUD Paramata Bunda, Libukang Permai, and Aisyiyah Bustanul Athfal. The map of Palopo City is prepared based on the elements needed in a learning management, then integrated with the needs for children's initial development and knowledge in order to grow religious and moral aspects of children, fine motoric aspects of children, cognitive aspects of children, social-emotional aspects of children and artistic aspects of children. An educator in implementing contextual learning should follow the following steps: a) develop the idea that children learn more meaningfully by working alone, discovering for themselves, and constructing their own new knowledge and skills; b) develop children's curious attitude by asking questions; c) presenting the model as a learning example; d) creating a learning community (creating an atmosphere where children learn together); e) reflect at the end of the meeting; f) carry out actual assessments in various ways, either through comprehensive assessments, anecdotal notes or assessment of work results.



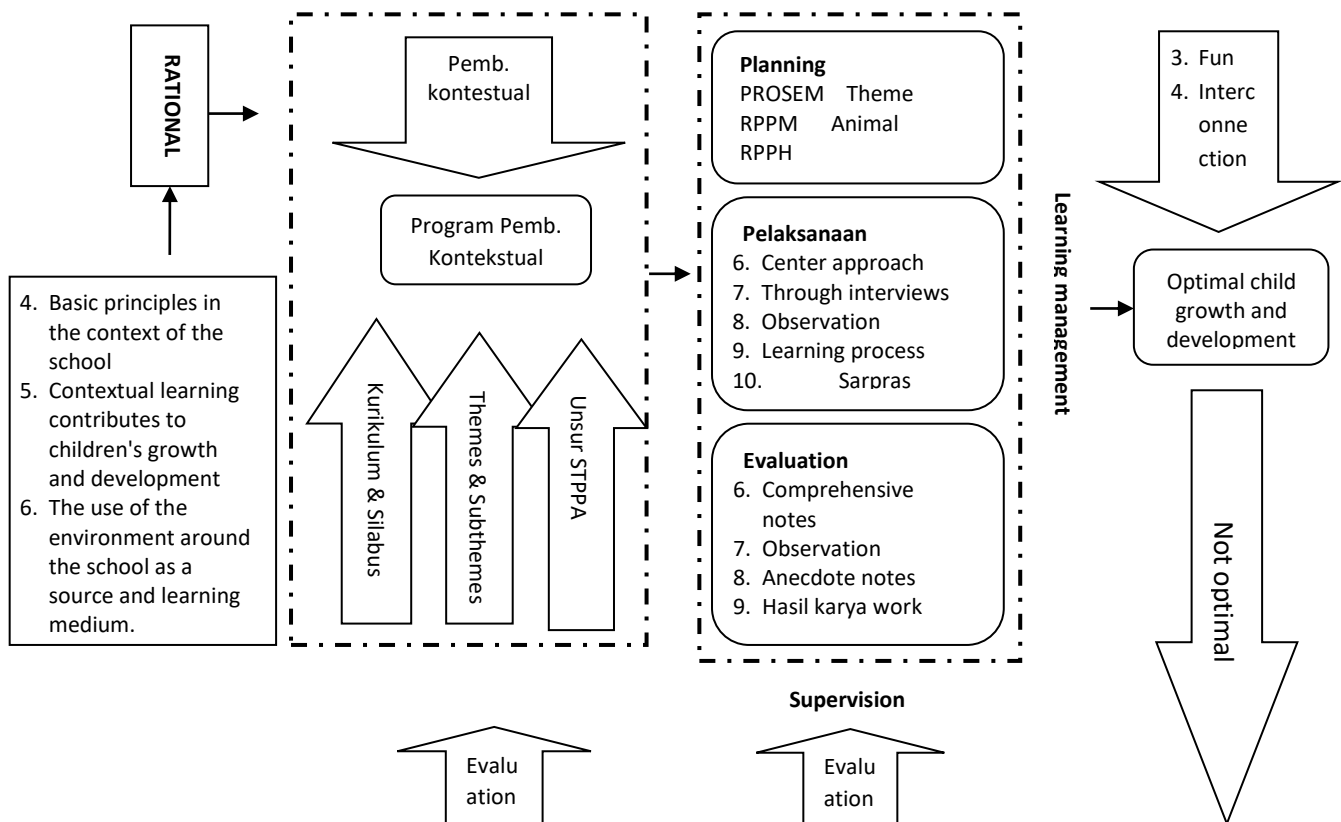
Factual model of contextual-based Islamic learning for early childhood

Development model (Draft) for contextually based early childhood learning

The resulting factual model of contextual-based learning in Palopo City PAUD is then socialized to stakeholders or parties involved to get responses and suggestions for improvement. The parties involved with the contextual-based learning model are parties related to policy formulation, program designers, process implementers and parties who support the implementation of early childhood education (Simbolon et al., 2023). The model was then revised and enriched to make it easier to apply in early childhood learning at other PAUD institutions.

Childhood learning development model is the need for an assessment process regarding the success of the model in influencing children's growth and development. The assessment is carried out based on a comprehensive evaluation of the learning implementation process by educators as well as supervision records carried out by institutional managers. If the influence is positive, it is hoped that this learning model will be able to foster children's growth and development optimally, and make the learning process enjoyable so that there is an interconnection between children's knowledge and their real world (Palah et al., 2022). If the expected results are not achieved, an evaluation needs to be carried out both in terms of program planning and learning planning.

Evaluation is carried out by involving educators, administrators, student guardians to contribute to contextual-based learning programs. Evaluation is carried out to assess the advantages and disadvantages in implementing the model. It is hoped that the involvement of many parties can provide input for improving the model so that it is more in line with community needs.



The development model (draft) of Islamic learning for early childhood is contextually based

CONCLUSION

Learning management supported by good planning makes it easier to implement and evaluate learning. Supervision is carried out by managers as material for assessing learning management. In general, PAUD Parama Bunda, Libukang Permai and Aisyiyah Bustanul Athfal Palopo City have met service standards in providing PAUD learning. The institution has carried out planning in learning related to the contextual-based learning model which is generally carried out in relation to the assessment of child development which refers to the assessment of child development regarding PAUD standards.

Contextual Learning is a holistic educational process and aims to motivate students to understand the meaning of the subject matter they study by linking the material to the context of their daily lives (personal, social and cultural context). These various contexts become media and choices in arranging learning activities in PAUD Palopo City. The factual model of early childhood learning at PAUD Paramata Bunda, Libukang Permai and Aisyiyah Bustanul Athfal Palopo City was prepared based on contextual-based learning processes in these institutions. In implementing this model, educators and managers as a model development team prepare learning plans and evaluation.

The development model (draft) was prepared based on the revised factual model of contextual-based learning in PAUD Paramata Bunda, Libukang Permai and Aisyiyah Bustanul Athfal, Palopo City. Revisions are carried out based on the results of socialization submitted to stakeholders or related parties to obtain responses and suggestions for improvement. Parties related to the contextual-based learning model are parties involved in policy formulation, program designers, process implementers and parties who support the implementation of early childhood education . The factual model was then revised and enriched to make it easier to apply in early childhood learning .

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