



RESEARCH ARTICLE

Implementation of Maritime Education to Develop Early Childhood Literacy through Role-Playing Methods

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ABSTRACT

Maritime education is a learning program specifically designed to integrate maritime curriculum for early childhood or marine. One objective development of the world community is the SDGs (Sustainable Development Goals / Sustainable Development Goals), which consist of 17 targets, one of which is the effort to welfare the public through the Ecosystem Ocean. Maritime education aims to introduce potent maritime affairs and fisheries on the coast of Indonesia to the generation young, so it can awaken the Spirit of Love of the sea in society. Marine education for age early can be considered as a solution for increasing the source of Power for future humans, in managing source Power marine in Indonesia. Importance embeds culture maritime for children age early as formation character and develops literacy about marine. Therefore, further research is needed with various literature to get a more complete picture. This research adopted the book guide maritime initiative initiated by the Ministry of Education and Culture as a reference in doing research. The research results show that through education maritime literacy can develop for children age early. This can be seen from the observation of the results on children in TK Melati Desa Karangantu, Kasemen Banten.

INTRODUCTION

Knowledge among the wider community is very low "sea blindness" This can raise very serious problems (Gibson, 2015). Previous research (Sahriana et al., 2020); (Hapidin et al., 2022) states low knowledge and awareness public about marine and maritime learning is still relatively foreign and not familiar so that it also has an impact on the low understanding of early childhood literacy maritime or marine, Therefore the importance of instilling maritime culture as character building and can develop literacy sea for children age early.

Besides That (Nurissobakh et al., 2018); (Asrini, 2019) state that for cultivate love homeland, and spirit to defend the country as well own character in developing literacy marine or Nautical requires a history-oriented program marine and pregnant mark culture as well as potency nautical so that needed education maritime. maritime education aims To build a pattern thinking or method view of self and environment We as a maritime country can influence the mind, mind manners, and actions (Syarah, E., Yetti, E., Fridani, L., Yufiarti, Y., Hapidin, H., & Pupala, 2019) One of effort For increase knowledge and interests to marine is education since early (Crec, AS, & Noventius, 2018).

Early childhood is a critical period for cognitive, emotional, and social development, where education plays a foundational role in shaping lifelong learning and adaptation. Literacy, one of the essential components of early education, extends beyond reading and writing to encompass critical thinking and effective communication. However, traditional teaching methods often fail to engage young learners actively or adapt to their developmental needs (Piaget, 1976; Vygotsky, 1978). This challenge underscores the need for innovative approaches that integrate thematic and interactive learning to make the educational experience more engaging and effective. One such approach is maritime education, which introduces children to concepts related to the sea, such as marine ecosystems, navigation, and maritime culture. This thematic framework broadens children's knowledge while promoting environmental awareness and a sense of global interconnectedness. By connecting maritime themes to literacy activities like storytelling and vocabulary building, educators can foster both language development and critical thinking skills (Kemp & Frost, 2020).

Role-playing methods provide an effective strategy to implement maritime education in early childhood settings. By immersing children in experiential learning environments, role-playing allows them to act out scenarios or assume roles such as sailors, marine biologists, or navigators. These activities stimulate creativity, problem-solving, and imagination, which are vital for cognitive development (Smilansky, 1968). Furthermore, role-playing fosters collaboration and social interaction, enhancing communication skills that are integral to literacy development (Pellegrini & Galda, 1990). For instance, children engaging in a role-play as "marine explorers" might collaborate to write a logbook documenting their discoveries, thereby integrating writing skills with thematic learning.

The combination of maritime education and role-playing offers a multidimensional approach to literacy instruction. Through interactive activities, children are encouraged to read and write in meaningful contexts. For example, creating stories about their maritime adventures or engaging with informational texts to prepare for their roles helps build literacy in both expressive and receptive domains (Neuman & Roskos, 1993). Additionally, the oral discussions that naturally arise during role-playing activities support the development of verbal language skills, which are foundational for literacy acquisition. This approach allows children to connect abstract literacy concepts with concrete experiences, making learning more accessible and memorable.

Research supports the benefits of thematic and contextual learning for literacy development. Studies have shown that when children engage with content in a meaningful context, they are more likely to retain information and apply it in new situations (Dewey, 1938). Maritime education, as a thematic framework, provides this context, allowing children to explore complex ideas through age-appropriate activities. Moreover, role-playing accommodates diverse learning styles and abilities, offering differentiated instruction that meets the needs of all learners (Tomlinson, 2001). By tailoring activities to individual strengths and interests, educators can foster a more inclusive learning environment.

Despite its numerous benefits, the implementation of maritime education through role-playing also presents challenges. Teachers may require specific training to design and facilitate effective role-playing activities, while schools might face resource constraints, such as limited access to maritime-related materials or content. Addressing these issues requires institutional support, professional development programs, and collaboration with maritime organizations or communities to enrich the educational experience (Jones & Shelton, 2011). Overcoming these challenges is essential to ensure the successful integration of this innovative approach in early education settings.

Maritime education, supported by role-playing methods, not only enhances literacy skills but also fosters a deeper understanding of the world. By combining thematic, interactive, and collaborative learning experiences, this approach engages children holistically, addressing their cognitive, social, and emotional development. As education continues to evolve to meet the demands of the 21st century, approaches like these provide valuable insights into how teaching can be made more dynamic, inclusive, and effective. This study highlights the potential of maritime education and role-playing in shaping the future of early childhood education and literacy development.

LITERATURE REVIEW

Indonesia is known as an archipelagic nation with great potential to become the axis of global maritime affairs. This is due to Indonesia's strategic location along the equator, situated between two continents and two oceans, namely Asia and Australia as well as the Pacific and Indian Oceans (Ayudia et al., 2022). As a maritime country surrounded by vast seas, Indonesia possesses significant maritime and marine potential. One region with considerable maritime potential is Karangantu Village, Kasemen District, Banten Province. This area is renowned for its rich marine resources, including tuna, skipjack, various types of shellfish, and other marine species (Wati & Primyastanto, 2018). This potential can be developed into relevant learning models to introduce maritime concepts to early childhood.

Early childhood education refers to pre-primary education designed to provide both physical and mental stimulation for children from birth to six years old (Gunarti et al., 2012). This phase is known as the "Golden Age," during which children exhibit remarkable potential for growth and development. Studies have shown that early childhood education serves as a critical foundation for building cognitive, emotional, and social abilities in children (Ningsih & Farida, 2022; Abdulhak, 2022). Among the essential skills to be introduced at this stage are various types of literacy, including writing, numeracy, financial literacy, scientific literacy, digital literacy, and cultural and civic literacy. Unfortunately, most early childhood educators tend to focus solely on writing and numeracy literacy, neglecting the other types of literacy (Kurnia, 2019).

Introducing maritime-based literacy can be effectively achieved through teaching methods tailored to children's immediate environments. Role-playing is one of the most effective approaches to familiarizing children with maritime culture. Through this method, children can engage directly by role-playing as sailors, marine researchers, or fishermen. Research has shown that role-playing promotes creativity, social skills, and problem-solving abilities in children (Chesler & Fox, 1966; Blatner, 2009). Moreover, this approach helps children better understand learning materials as the themes are closely tied to their surroundings (Demir et al., 2013).

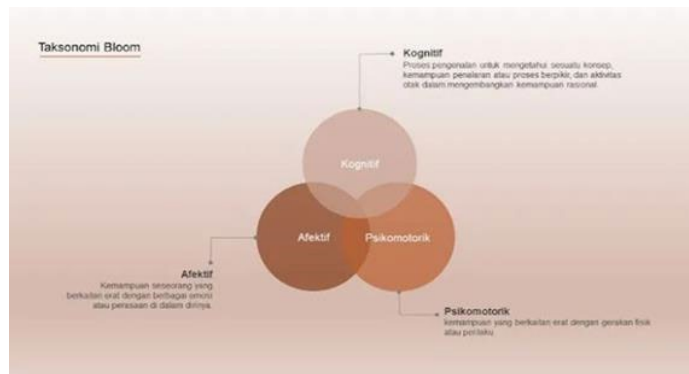
Literacy is a fundamental skill that every child must acquire to become a superior and well-rounded generation. Literacy extends beyond reading and writing to include critical thinking, speaking, listening, and problem-solving skills (Kern, 2000). In the context of maritime education, literacy can be developed through activities such as reading maritime-themed stories, writing logbooks, or engaging in discussions about ocean exploration. These activities not only enhance reading and writing skills but also deepen children's understanding of marine environments and maritime culture. Maritime-based education is crucial for Indonesia, a maritime nation with vast seas and significant marine potential. However, there has been limited research specifically examining the application of maritime education to develop literacy in early childhood through role-playing methods. Previous studies have primarily focused on general maritime education at the adolescent or higher education levels (Gunarti et al., 2022). This research aims to address this gap by focusing on maritime-based literacy development for early childhood using role-playing as the primary method.

In this study, teacher mentoring plays a vital role in implementing maritime-based education. The mentoring program includes improving teacher professionalism in developing maritime-themed lessons and providing training on utilizing marine resources (Gunarti et al., 2022). By integrating maritime themes into learning, children can more easily understand the material while fostering a love for the sea as part of their national identity. This research seeks to answer two key questions: (1) How can maritime education be implemented for early childhood? and (2) How can maritime-based literacy be developed for early childhood? The focus of this research is on developing maritime literacy for early childhood at TK Melati, Kasemen Village, Banten.

METHODS

In this study, the authors used qualitative field research (Fields Research) with an analytical descriptive approach. Researchers intend to try to explore how the application of maritime education in developing literacy in early childhood through method plays a role. The subject of this research is children aged 5-6 years in Kindergarten in Melati village Kasemen Banten. To answer the research question, the first step of the research is compiling planning learning. Before the activity learning needed A purposeful plan To produce a learning process in accordance with the objective yes I want to achieve. First things first done is determine goal, second choose experience learn that will be

accepted by children / students, third determine activity Study teach; fourth define the people involved in the learning process; fifth determine tools and materials for learn; fifth notice availability facility physical, and the sixth planning the evaluation and development. The first step is to formulate goals. Every activity that is carried out, we need to know what the purpose of the activity is. To facilitate the steps taken in achieving the goal. There are three important aspects that can be used as a reference for formulating learning objectives including the cognitive, affective and psychomotor aspects (Bloom, 1964), can be seen in the following figure:



The second step is choosing a learning experience that will be accepted by the child or student. Learning is an experience felt by students so that these activities can stimulate children or students to think actively and creatively. Not just being present in class, listening, taking notes and listening. However, children or students must be able to provide opportunities to find problems and solve them.

The third step involves determining teaching and learning activities. This can be carried out individually or in groups. An individual approach allows children or students to work independently using teaching tools and materials prepared beforehand. Meanwhile, the group approach can be conducted in either small or large groups, encouraging collaboration and interaction among participants. The fourth step is identifying the participants involved in the learning process. In this context, teachers or other equivalent educators play a central role. Teachers act as facilitators and managers of the learning environment, ensuring that the experience is engaging and enjoyable for children or students. Therefore, it is essential for teachers to continuously enhance their skills and abilities to align with the unique characteristics of the children and adapt to the changing times. By doing so, they can provide contemporary and meaningful learning experiences that resonate with the needs and interests of the students.

The fifth step determines the tools and materials to be used in learning. A teacher is a source of learning; however, students also need support from tools or other media that can support the learning process. In selecting media or keys and teaching materials, a few important among them is the ability of intellectually diverse students, goals necessary learning achieved, learning media that will be used, experience study, and tools material that can be utilized.

Sixth step notice availability facility physical. In matter This form room classroom, laboratory, and room supporters each other. With the availability of good physique, as well source capable power, as well tools and materials or adequate media, activities learning can do, and purpose learning can be achieved with ok. The last step is planning the evaluation and development process. A notice is planning the evaluation and development process after the activity Study teaches. With evaluation of the book of isa see the extent to which the success of the learning process has been done. is capable of reaching objective past learning designed or must. There is repair or development for activity Study teach next.

RESULTS AND DISCUSSION

Based on the results of the research, the initial step taken by the researcher was to prepare a learning plan that aims to produce a learning process in accordance with the goals to be achieved. The first thing to do is to determine the objectives, the second is to choose the learning experience that will be received by the child/student, the third is to determine teaching and learning activities; fourth determine the people involved in the learning process; fifth determine the tools and materials for

learning; the fifth pays attention to the availability of physical facilities, and the sixth plans the evaluation process. The learning objectives and learning schemes can be seen in the following table:

Learning Objectives	Learning Experience	Learning Activities	Learning Subject/People involved in the learning process	Tools and materials
Develop written literacy.	After learning through playing with the roleplaying method	The theme "I am a child of the beach" is the subtheme of "Vacation to Anyer Beach, Banten".	Teacher and child	The teacher facilitates according to the needs to be used

	children can understand written literacy	<p>Opening activity: The teacher asks about going to the beach. Then the children talked about their experiences while on vacation to the beach.</p> <p>Core activities: Based on the references obtained from the child's experience, a storyline is made that is packaged in the role playing method. Then the teacher offers the children several roles to play in the activity. There are those who play the role of father, mother, brother, driver, conductor, coast guard, trader, and buyer.</p> <p>Closing: Evaluation. The teacher and children sit in a circle and then talk about the activities that have been carried out.</p> <p>Reflection: In this activity to develop written literacy, the teacher writes the names of each object on the beach and the activities to be carried out. For example, labels for children's names, object names and symbols are placed in several places. Such as sea sand, waves, seashells, etc.</p>		such as: Pencil, paper, scissors (to write the names of the objects to be used), a picture of a public transport made of cardboard, a room designed in a beach atmosphere.
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Develop numeracy literacy.	After learning through playing with the roleplaying method children can understand numeracy literacy	The theme and activities are the same. Reflection: In this activity to develop numeracy literacy, the teacher writes the names of each object on the beach and the activities to be carried out. Namely getting to know the concept of numbers such as the price of a beach	Teacher and child	The teacher facilitates according to the needs to be used such as: Pencil, paper, scissors (to write the names of the objects to be used), a picture made of cardboard, a
		the entrance ticket by writing and pasting it on the beach entrance wall, the price for public transportation rides (in the form of play money that is similar to real money), children are given play money according to their needs which will be used to buy tickets and pay to take the bus.		room designed in a beach atmosphere.
Develop scientific literacy	After learning through playing with the roleplaying method children can understand scientific literacy	The theme and activities are the same. Reflection: In this activity to develop scientific literacy, children get to know the various living things on the beach. Such as animals and plants that exist in the sea. In addition, children can get to know sea water with its properties and tastes, the air, and the rocks around the sea.	Teacher and child	The teacher facilitates according to the needs to be used such as: Pencil, paper, scissors (to write the names of the objects to be used), Cartoon pictures of vehicles, a room designed in a beach atmosphere

Based on the design of activities and the results of observations made on children aged 5-6 years at TK Melati Kasemen Banten. In this case, the researcher wanted to answer research questions based on the results of the research, namely related to how to implement and how to develop literacy through maritime education in early childhood. In this case, it is carried out through role-playing activities with the theme I am a beach child, with the sub-theme of going to Anyer Beach, Banten. The first thing the teacher does is design a lesson plan which then carries out the activity plan in accordance with the results of the discussion with the children. Through this activity, children can understand and develop written literacy through activities such as getting to know the names of objects on the beach and the activities to be carried out. For example, labels for children's names, object names, and symbols are placed in several places. Such as sea sand, waves, seashells, etc. Then to develop numeracy literacy, children gain experience through activities to recognize the concept of numbers such as the price of a beach entrance ticket by writing and sticking it on the wall of the beach entrance, the price of getting on public transportation (in the form of play money that is similar to real money), children are given play money according to needs that will be used to buy tickets and pay for bus rides. Furthermore, developing scientific literacy in children can be done through activities to get to know the various living things on the beach. Such as animals and plants that exist in the sea. In addition, children can get to know seawater with its properties and tastes, the air, and

the rocks around the sea. If viewed from the learning objectives and learning experiences carried out, both from written literacy, numeracy, and science activities, when children are able to develop cognitive, affective and psychomotor aspects as conveyed by (Bloom, 1964).

With the availability of good physical facilities, as well as qualified resources, as well as adequate tools and materials or media, learning activities can be carried out and learning objectives can be achieved properly. The final step is to plan the evaluation and development process. The thing that must be considered is planning the evaluation and development process after the teaching and learning activities take place. With evaluation we can see the extent to which the success of the learning process has been carried out. Is it able to achieve the learning objectives that have been designed or should there be improvements or developments for further teaching and learning activities. The learning carried out by the teacher at Melati Kindergarten is oriented towards the needs of the child and refers to the theme closest to the child, which is adapted to the area (coastal area). This can develop maritime-based learning according to the characteristics of the child (Gunarti Dwi Lestari, Wiwin Yulianingsih & Widodo, Ali Yusuf, 2022). Based on these activities, Melati Kindergarten is a place or vehicle for good education to stimulate growth and development. This is in line with several researchers (Ningsih, R. W., & Farida, 2022); (Abdulhak, 2022) which states that early childhood education is a very important educational vehicle in providing a basic framework that is formed and develops rapidly.

CONCLUSIONS

The results of this study and previous research in the same field show that maritime-based learning activities can develop written literacy, numeracy literacy and scientific literacy in early childhood. The application of numeracy and science literacy not only makes it easy for children to understand words, sentences and language, but through these activities children can communicate well and can open windows to the world.

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