

Maritime Context in Learning at School: Systematic Literature Review

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Abstract. The aim of this research is to determine the maritime context and the implementation of the integration of the maritime context in learning at school. The method used in this research is a qualitative method with a systematic literature review or literature study type method. The research results show that the maritime context is a situation that utilizes all the potential at sea, be it fisheries, maritime affairs, mining, tourism and transportation. Implementation of maritime context integration in learning at school is the process of implementing or carrying out an activity that integrates maritime insight, be it fisheries, maritime affairs, mining, tourism and transportation into the process of teaching and learning activities at school such as in material/content and learning media. By integrating the maritime context in learning activities, it can make it easier for students to understand learning concepts by observing and viewing learning in the surrounding environment.

1 Introduction

Indonesia has great potential in the maritime sector. The majority of Indonesia's area is 70% sea and 30% land, encompassing over than 17,000 islands with boasting a coastline that span more than 99,000 km. This characteristic making Indonesia as a nation with an extensive maritime territory. In Kompas Daily [1] it is stated that there are 5 reasons why Indonesia is called a maritime country: 1) It has vast oceans, the territory of Indonesia is 8.3 million km² with a water area of 6.4 million km² and a land area of 1.9 million km²; 2) Has a geostrategic position as the center of world trade shipping because it is located between two continents and two oceans; 3) Abundant marine wealth with superior capture fisheries potential of 12.54 million tons per year; 4) Progress in the fisheries and marine sector; and 5) Having a maritime culture as the knowledge, beliefs and activities of people who live side by side with the sea.

President Jokowi's hope of restoring Indonesia's glory as a maritime country and making Indonesia the world's maritime axis is stated in Presidential Regulation Number 16 of 2017 concerning Indonesian maritime policy. The world maritime axis is Indonesia's

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vision to become a sovereign, progressive, independent, strong country and capable of actively contributing to regional and global security and peace in accordance with its national interests. [2].

Efforts are certainly needed to fulfill the hope of that Indonesia will become the world's maritime axis. One of them is the role of the Indonesian government in reinvigorating maritime culture among society through education so that Indonesian people are able to protect, maintain and manage marine resources from the bottom to the surface for various aspects. For this reason, it is necessary to improve and improve the quality of human resources (HR) through harmonization of the education system and maritime training [3].

Education in Indonesia is considered fundamental and is highly prioritized by the Indonesian government. Education is an important foundation in the nation's progress to form quality human resources who have knowledge, skills and expertise, one of which is in the maritime sector [4][5]. National Education System Law (Sisdiknas) Number 20 of 2003 article 1 paragraph 1 states that education is an effort to create learning activities that enable students to be able to develop their own potential, personality, intelligence, noble morals, as well as skills that are beneficial for themselves, society, nation and state [6]. The learning process that students receive through education is so that students are able to adapt as best as possible to the environment, family, school and society. With maritime education and training, it is hoped that we can produce graduates who are competent and friendly with the sea and able to support Indonesia's hopes of becoming the world's maritime axis.

However, learning that makes maritime affairs a context for discussion in learning in Indonesian schools is still minimal. Based on research conducted by Irawan, information was obtained that knowledge about the sea was not a focus in the school curriculum. Learning about maritime affairs is only a small fragment scattered in subjects whose existence is accidental, not explicit and systematic [7]. This results in a lack of love for the sea for students and the wider Indonesian community which has an impact on maritime development which is expected to be difficult to implement and does not receive support from the community as human resources [7].

Fuad and Musa's research [8] regarding the importance of maritime learning, began with the problem found by researchers that even in kindergartens not much maritime themed learning was taught. This is because maritime insights have not received maximum attention from the government as a vehicle for socializing maritime development. Many subjects do not yet link maritime issues as material or content in learning with the daily context of Indonesian maritime society, including physics learning [9].

The importance of maritime learning in schools is a vehicle for introducing, providing understanding and fostering a love for the younger generation to protect the sea and its resources through the works created, both in the fields of literature, music, dance, painting and other fine arts. It is important to introduce and strengthen the nationalist character as a maritime nation to the younger generation in order to maintain the sovereignty and unity of Indonesia [10]. By learning maritime at school, students are expected to be able to understand, analyze, communicate and make good decisions regarding the maritime environment around them [9].

Based on the background description that has been explained, learning with a maritime context needs to be considered in implementing learning in schools. With educational media, through the socialization and enculturation of historical cultural values and maritime culture in learning activities in schools, it becomes no less important in efforts to build a great maritime culture and country [11]. Maritime education is important for the prosperity and glory of Indonesia as a maritime country in the national development process. This is related to the fact that during the colonial period in Indonesia, the maritime soul and spirit experienced a decline. In this article the author is interested in studying and describing the maritime context and the implementation of the maritime context in learning at school.

2 Method

Research methodology is a way or effort to investigate and explore existing problems by using scientific work methods that are carried out carefully and thoroughly to collect, process, analyze data and draw conclusions systematically and objectively in solving problems or testing hypotheses [12]. The research method used is a qualitative method, namely using a systematic literature review (SLR) or literature study approach. The SLR method is used to study, evaluate, and interpret based on certain research questions that are relevant to all existing research in the topic area of a phenomenon of interest. [13]. The steps for processing research data are through searching, reading and recording content analysis literature and reviewing journals, books and other sources related to the maritime context in learning carried out in various schools. The data in the research were collected and analysed using descriptive analysis.

3 Result and Discussion

3.1 Maritime Context.

Maritime and nautical are two words in Indonesian that are used to name everything related to maritime affairs. The word maritime comes from Latin, namely mare, and bahari comes from Arabic, namely bahrum [14]. Both are related to the sea but have different meanings. The word maritime refers to maritime activities such as trade and other activities where the sea is used as a means or object for activities. Meanwhile, maritime tends to be defined as humans or people who carry out maritime activities on the sea or its surroundings. In the Big Indonesian Dictionary (KBBI), maritime is defined as everything relating to the sea, especially matters relating to shipping and trade at sea [15].

A maritime country is a country that utilizes its sea areas for glory and efforts to develop its country optimally. Literally, a maritime country means a country that also has maritime power as the backbone of the existence, development and glory of a nation and state. One of the maritime countries is Indonesia. Indonesia, which is known as a maritime country, is based on the glorious history of the Indonesian maritime kingdom since the time of our ancestors. Indonesia's glory in ancient times as a maritime or maritime country that was skilled at sea, as in a fragment of the song "My ancestors were sailors..." who were able to sail and conquer the oceans and become a developed nation as a center of trade and cultural exchange, made Indonesian President Joko Widodo have hope to restore the glory of Indonesia by making Indonesia the world's maritime axis.

As a maritime country, maritime insight or what is commonly known as the maritime paradigm must also be embedded in the knowledge and culture of Indonesian society. The maritime paradigm or archipelagic insight is a development concept based on the identity of the Indonesian nation as a maritime country according to Indonesian history [11]. Maritime insight has an important role in generating enthusiasm for maritime country development. This hope certainly needs to receive support from all sectors, one of which is by increasing skilled and ready-to-use human resources in the maritime sector. For this reason, the government must pay attention to the education sector, where the maritime spirit needs to be prepared and become the main pillar for Indonesia's national education policy. [16,17]

Maritime affairs based on terminology also includes space or sea surface areas, which are fertile areas for various activities such as tourism, shipping traffic and marine services [18]. According to the KBBI, the maritime context is a situation related to the sea and everything related to the sea and its surroundings. The study of maritime understanding

through learning in schools can help build students' paradigms and mindsets about the strategic meaning of the sea for the development of the Indonesian state.

Learning with a maritime context in schools can create a generation that is able to love the sea, utilize the sea and develop the potential of the sea for the survival and progress of the nation. In general, the maritime context in school learning that can be introduced to students includes, among other things, the meaning of maritime and maritime affairs, maritime history, maritime cultural values, maritime potential, values of patriotism and the positive character of maritime affairs, as well as Indonesia's superiority as a maritime nations and countries [19]. Learning using a maritime context needs to be taught in schools from an early age as knowledge and experience for students to recognize the surrounding environment and be able to use the sea for life and building the nation. Maritime contexts that can be used in learning at school include the learning media used, content and materials that can integrate maritime affairs, books and also teaching modules with maritime contexts.

3.2 Implementation of the Maritime Context in Learning at School.

Implementation has the meaning of carrying out which is taken from the English word, namely to implement. Implementation is the impact or consequence of something resulting from a method that is carried out [20]. Usman added, Implementation is not just an activity, but also a mechanism for a planned activity system to achieve activity goals which lead to actions. [20]. The implementation discussed in this research is about the implementation of the maritime context in learning at school.

Implementation of maritime context integration in learning at school is the process of implementing or carrying out an activity that combines marine insight, be it fisheries, maritime affairs, mining, tourism and transportation into the process of teaching and learning activities at school such as in material/content and learning media such as modules, worksheets, assignments, practice questions etc. In line with the opinion of Hasbi et al [19] that the implementation of the maritime context in learning carried out in schools can be placed into two positions, namely:

1. Completely/comprehensively, by integrating the maritime context into the scope of the curriculum starting from the vision, mission, objectives, development program, content and various relevant supporting activities.
2. Partially (learning operations), by integrating the maritime context into the scope of work program development (semester program, lesson plans, assessment plans, and other activity planning programs), methods or activities (STEAM approach, project learning), media, resources learning, assessment techniques, and documentation.

By integrating the maritime context in learning activities, students can understand learning concepts easily by observing and viewing learning based on maritime experiences in the surrounding environment.

Implementing the maritime curriculum in Indonesia is carried out to strengthen the identity of the Indonesian maritime nation [17]. Because to be called a maritime country itself, Indonesia still has a lot to learn, study and implement maritime insights to create a glorious maritime country with its marine resources managed and utilized wisely, optimally and evenly. The hope of making Indonesia the world's maritime axis is being realized. That's why maritime insights are echoed throughout the country, wrapped in a curriculum with a maritime context that is circulated to be studied, studied and implemented to all levels of students in any educational unit, from early childhood education to tertiary education.

Based on the results of the exploration, there are five indicators of maritime context curriculum design in school learning [21], namely:

1. Aims to develop marine potential through conservation, management, utilization, protection and sustainable development. Therefore, human resources must be prepared who understand, master and love the sea.
2. The learning content provided is based on the realities of Indonesian society as a maritime society. By providing opportunities and space for students to study problems in their community environment with maritime context material content will help students solve problems and apply them.
3. Learning with a maritime context in schools pays more attention to the problems or problems faced by maritime communities in everyday life.
4. Develop students' skills or life skills that are centered on students' potential, development, needs and interests.
5. Learning practices with a maritime context provide space for collaboration and participation from various parties to help develop maritime potential.

Learning with a maritime context in schools according to Hasbi et al has objectives [22] including:

1. Introduce the characteristics of Indonesia as a maritime country.
2. Provide knowledge about maritime life in various contexts and provide inspiration about maritime potential to students.
3. Develop maritime concepts and understanding according to student development.
4. Providing various learning experiences about maritime affairs to students from various learning development programs.
5. Develop an attitude of love for the motherland.

Knowledge and skills with a maritime context in school learning provide relevant learning experiences for students by integrating maritime affairs based on real life values found in students' daily lives. By making maritime affairs the context or content of learning at school, students learn not only from teachers, textbooks, the internet, but also learn by utilizing their experiences in everyday environments, learning directly from the community, fishermen and practitioners in related fields.

The implementation of the maritime context in learning in schools has been widely carried out by previous researchers where educators provide maritime context learning to students by analyzing the curriculum, activity plans and media such as textbooks, interactive learning multimedia, internet, projectors, educational game media, and the like, based on on the reality in the surrounding environment. The research conducted by Natasya and Izzati [17] aims to develop animated learning media with maritime nuances with the help of Macromedia Flash 8 in relation material for class VIII SMP. From the research conducted, learning media with maritime nuances or contexts were obtained that were suitable for use.

The research conducted by Santoso and Mutmainna [23] entitled development of kinematics and dynamics test instruments in the context of maritime insight, contains the researchers' plans for developing physics test instruments in the context of maritime insight. This research has developed 80 compound choice questions distributed in 40 kinematics questions and 40 dynamics questions that are valid and reliable. The test instrument has been tested empirically on 417 students spread across 5 public high schools in Majene Regency. The trial results showed that the test instrument developed was psychometrically valid and reliable.

Research by Nurhayati et al [24] found the problem that maritime history learning in schools was still minimal and seemed boring, its implementation in schools experienced several obstacles from historiographical, pedagogical and geographical aspects. For this reason, researchers raise the urgency and relevance as well as the role of maritime history learning in building the maritime paradigm as a paradigm for Indonesia's development. From the research results, it was found that learning maritime history can develop students'

perspective regarding the importance of the sea in Indonesia's future development paradigm. Apart from that, by studying maritime history, we can learn maritime cultural values that students can apply in national and state life.

Irawan's research [7] reviews the Ocean Literacy framework developed by the Ocean Literacy Network and presents it in the form of integrative concepts in science learning in Indonesia. In general, the framework is able to summarize essential marine insights to be integrated into related learning in schools. The author concludes that the marine literacy framework studied is general and has global aspirations but can be useful in educators' efforts to integrate marine knowledge into formal education in Indonesia.

Wijayati et al's research [25] aims to develop interactive multimedia that focuses on the maritime context and explores factors that influence reaction rates. The validation result of media experts and material experts for development of interactive multimedia were obtained results of 89.28% and 84.37% in the very valid category and worth testing on teachers and students. The results of the maritime context interactive multimedia practically test on the factors that influence the reaction rate of teachers and students were obtained at 87.5% and 82% with very practical criteria.

Maimunah et al's research [26] aims to develop Student Worksheets (LKPD) based on RME with a maritime context that is valid, practical and effective. The results of the research show that the RME-based LKPD meets valid criteria in the good category, practical criteria in the results of students' practical responses, and effective with a completion percentage of 87%.

Based on several studies above, it can be concluded that the maritime context used in learning at school is in the form of the process of implementing or carrying out an activity that integrates marine insight into fisheries, maritime affairs, mining, tourism and transportation into the process of teaching and learning activities at school as in the material/content. and learning media. Implementation can be carried out in curriculum development, development of media and teaching materials, methods of learning activities carried out and other relevant activities. By integrating the marine context in learning activities, it can make it easier for students to understand learning concepts by observing and observing learning in the surrounding environment.

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