



Marine Local Content Curriculum for Coastal Community: an Insight from Integrated Islamic Elementary School, Batam City

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Abstrak

Penelitian ini bertujuan untuk memperoleh informasi terkait muatan kurikulum kelautan guna melestarikan kearifan masyarakat pesisir yang dilaksanakan di Sekolah Dasar IT Mahabbatul Haq Kota Batam. Metode penelitian menggunakan kualitatif deskriptif dengan desain penelitian studi kasus. Teknik pengumpulan data dengan wawancara, observasi dan dokumentasi. Hasil penelitian menunjukkan terdapat 2 faktor yang menyebabkan kekurangan dari pelaksanaan muatan lokal kelautan di SD IT Mahabbatul Haq Kota Batam. Faktor tersebut terdiri dari faktor internal yaitu secara administratif Sekolah Dasar IT Mahabbatul Haq Kota Batam belum memiliki dokumen yang diperlukan seperti dokumen kurikulum kelautan dan Rencana Pelaksanaan Pembelajaran (RPP) kelautan. Pelaksanaan pembelajaran muatan lokal kelautan hanya berpedoman pada silabus mata pelajaran muatan lokal kelautan. Sedangkan faktor eksternal berkaitan dengan belum berdampak besar terhadap masyarakat pesisir disekitarnya. Selain itu terdapat 2 faktor juga yang mempengaruhi alasan mengapa diterapkannya muatan lokal kelautan dalam mendukung pelestarian kearifan masyarakat pesisir yaitu Segi lingkungan, dan segi kultural.

Abstract

This study aims to obtain information related to the content of the marine curriculum in order to preserve the wisdom of coastal communities carried out at the SD IT Mahabbatul Haq Batam City. The research method uses descriptive qualitative research with a case study design. Data collection techniques with interviews, observation, and documentation. The results showed that there were 2 factors that caused the lack of implementation of marine local content at SD IT Mahabbatul Haq Batam City. These factors consist of internal factors, namely administratively the SD IT Mahabbatul Haq Batam City does not yet have the necessary documents such as marine curriculum documents and Learning Implementation Plan (RPP). The implementation of marine local content learning is only guided by the syllabus of marine local content subjects. Meanwhile, external factors have not had a major impact on the surrounding coastal communities. In addition, there are also 2 factors that influence the reason why the application of local marine content in supporting the preservation of the wisdom of coastal communities, namely the environmental aspect, and the cultural aspect.

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INTRODUCTION

Education is not only focused on the quality and quality of educators in producing quality graduates, but also considers other aspects such as mental and thinking development. The various forms of education indicate that an education must be adapted to the needs and developments of the times. One form of the development of an education is the application of local content subjects. According to the National Standards Agency (Badan Standar Nasional Pendidikan, 2006) local content is a curricular activity that aims to develop the skills and competencies of students that are tailored to the potential, culture, and characteristics of the area where they live.

Local content subjects are not the same as other subjects, so local content subjects must be formed in their own subjects. The substance of local content is determined by the education unit, not limited to skills subjects. In its implementation, the unit education that implements local content subjects must develop Competency Standards and Basic Competencies for each local content subject that is implemented. The implementation of local content subjects is oriented in bridging the needs of the community, but still on national goals. In its implementation, local content subjects must be adapted to the circumstances and cultural values contained and carried out in the local environment, so that they can overcome social problems and develop character, ability to think, act and life skills in social life.

One of the concepts of local curriculum content in the form of preserving local potential is found at the Integrated Islamic Elementary School Mahabbatul Haq in Batam City. This school incorporates learning by utilizing and preserving its local wisdom, namely the sea. The use of nature as a medium in the delivery of learning makes students more concentrated on the phenomena that occur in their environment. According to Uzun and Keles (2012) the purpose of utilizing nature as a learning medium is to assist students in getting to know the natural environment, using natural products as content, materials and educational instruments. Many studies argue that, although the delivery is brief, nature-based education helps students get information about natural processes, makes students sensitive to nature, increases environmental awareness and contributes to protecting nature.

Many alternative education with the theme of nature school has been built. Alternative

education was first established in 1998 under the name Sekolah Alam Ciganjur. The natural school has been consistent in implementing experiential learning education, where students in the natural school can develop their talents and potential in a directed manner. The learning approach applied in this natural school emphasizes the learning of life skills in a broader practical way.

One study found that there were differences in the psychological development and mental health of eleven-year-old adolescents when spending time in an educational environment outside of school or nature-based schools with conventional schools. The results of the study indicate that the effects of nature extend to positive things for children when doing learning in a natural environment. The natural environment can reduce anger and improve mood in adolescents and improve behavior, so in the future this field is needed to explore appropriate methods to maintain psychological and mental health (Otto & Pensini, 2017).

Local content curriculum is formed to answer problems in the environment. As research conducted by Gong et al. (2021) there is climate change and energy problems that will be felt by mankind. To overcome these problems, the incumbents make laws, standards and regulations related to this matter. The concepts of saving nature are the demands of a community in this case a school that allows spreading awareness of the concept. The concept is packaged in the form of a green school which has been widely applied in China. So it is necessary to further develop concepts, requirements, evaluation systems for green schools or nature schools that aim to foster sustainable awareness and sustainable development.

Several schools in the world have implemented environmental-based schools called green schools, one of them in the United States and Iran implementing this nature-based school in order to make efforts to reduce environmental impacts by implementing this knowledge in educational programs in schools. Various management initiatives and practices were also implemented to reduce environmental problems in these schools (Meiboudi et al., 2018). The marine curriculum content at Integrated Islamic Elementary School Mahabbatul Haq, Batam City, was also formed based on the concerns of the education providers regarding the local environmental wisdom.

On the other side, in 2006 the government launched the ADIWiyata program in the form of "Green Schools" to encourage and form environmentally sound and cultured schools that are able to participate in and implement environmental conservation and sustainable development efforts (Sagala, 2019). Based on the news from [Mediacentre.go.id](http://mediacentre.go.id) (35 Ton Sampah Diangkut dari Pantai Tanjunguma, 2021) as much as thirty tons of waste was transported from Tanjung Uma beach in community service activities carried out by the community in the context of the peak commemoration of the National Garbage Care Day at Batam City level in 2019. There are several factors that This causes the accumulation of garbage because the location of Kampung Tua Tanjung Uma beach is a place where garbage is dumped carelessly in irrigation or ditches from the Jodoh to Nagoya area.

According to research conducted by Saprial et al. (2004), there has been an environmental conflict in the settlement of Kampung Agas in the Tanjung Uma area due to the failure of the Tanjung Uma area in resolving spatial conflicts which happened in 2004. In the construction of the Tanjung Uma location, it is not intended as a residential area for residents but is designated as a place for trade and services as well as a coastal protected area. Thus, it was attempted to be relocated in accordance with the initial planning for the formation of the spatial layout. But failed because the location has developed as a residential area.

Integrated Islamic Elementary School Mahabbatul Haq elementary school uses the sea as a medium in delivering learning with the aim of preserving nature. Students are invited to interact directly with the sea in order to foster a sense of ownership and responsibility for the sea in which they live. This learning is packed with fun learning but still pays attention to the growth of children's intelligence. In accordance with one of the visions of the Riau Archipelago Province, namely excelling in the maritime field, by maintaining the carrying capacity of the environment and preserving marine resources. Excellence in the maritime sector also includes the utilization of the potential of coastal areas and small islands for the development of marine tourism.

Marine conservation is outlined in a subject called marine. Children are taught to be more familiar with the potential of the sea in the Riau Islands province, to be grateful for the gift of the sea and to be oriented towards saving the

sea. These activities are carried out inside and outside the classroom. An example of an activity outside the classroom is planting mangroves to maintain the balance of the seafloor. Considering that the school is located right on the beach and the majority of the original community are fishermen. But ironically, the surrounding environment is polluted by garbage.

According to the analysis previously, this research is important as having huge potential contribution to the curriculum policymaking in Indonesian context, especially contribute to the current issues related to local content curriculum, contextual curriculum policy-making, and Indonesia as a maritime country. The result of this study illustrates the implementation of marine local content curriculum and its influential factors in supporting the wisdom of coastal communities in the Tanjung Uma area.

METHOD

This research is a descriptive qualitative research. Qualitative method is a scientific research for understanding related to a phenomenon in direct or natural social contact which is oriented to the process of interaction and deep communication between researchers and the phenomenon under study. Qualitative method is a scientific research for understanding related to a phenomenon in direct or natural social contact which is oriented to the process of interaction and deep communication between researchers and the phenomenon under study.

The research design used in this study uses a case study research design. According to Creswell (1998) a case study is a series of scientific activities carried out intensively, in detail related to programs, events and activities, either individually or in groups to obtain in-depth information and knowledge related to an event that has taken place or has passed.

The research was conducted at the Integrated Islamic Elementary School Mahabbatul Haq, Batam City, in this case the researchers will take data using several techniques, namely interviews, observation and documentation and archives. Interviews were conducted to obtain additional data information needed in collecting research data. Observations are carried out by observing objects that are in accordance with the subject being studied. Documentation is carried out to strengthen the sources and data that have been received and obtained when con-

ducting research. Archiving is done by reviewing documents or documentation of activities in the research subject.

The focus of this research is the curriculum content of marine local content to preserve the wisdom of coastal communities in the Tanjung Uma area of Batam City, the design and concept and implementation of marine local content carried out at Integrated Islamic Elementary School Mahabbatul Haq, Batam City.

Data validity techniques in qualitative research can be in the form of triangulation, negative case analysis, using reference materials, sharpening observations. In the technique, valid and reliable data are needed in order to confirm the disclaimer of research that does not use invalid data in the study (Maloeng & Lexy, 2006). The data triangulation technique that researchers used in this study was to make comparisons between the results of observations, observations, documentation, and relevant data according to interviews which were then linked to observations and strengthened by the results of documentation. The data analysis technique used in this study is qualitative analysis used by researchers as proposed by Miles and Huberman (1994), namely data collection, data reduction, data presentation and the last step is drawing conclusions.

RESULT AND DISCUSSION

In order to illustrate the implementation of what so-called as marine local content curriculum for coastal community in Batam, this part has been divided into three parts related to its implementation, the learning practices that happened in Integrated Islamic Elementary School, and factors that influence the concept and implementation of the programs. The whole results and discussion will be explained as follows.

A. Implementation of Marine Local Content

According to research conducted by Kadi and Awwaliyah (2017) education is an effect on human reactions to the phenomenon of the reality of the universal universe. Education exists to provide knowledge for humans in developing and studying various things in the universe, including knowing how the reality of life processes and himself as a social human being is. The presence of an innovation in education is a gap to improve and solve problems in education itself.

Innovation in education can include ideas, methods, strategies which are then perceived as an improvement for a group of people who use it.

Local content is a stand-alone subject so schools that implement local content subjects must develop competency standards and basic competencies for each local content that will be held. Local content is applied and compiled based on the adjustment of environmental conditions, potential and local culture. Local content curriculum is an educational program whose content and learning media and delivery are related to the natural environment.

Based on research conducted by Otto and Pensini (2017) environmentally oriented knowledge is important to be implemented in order to produce ecological behavior, because in this case humans need to be aware of the type of action they will take. Although in the course of an educational program, environmental education generally has a lot of impact on knowledge alone, in this study it was found that there was a relationship between environmental knowledge and the formation of human ecological behavior itself.

Marine local content at Integrated Islamic Elementary School Mahabbatul Haq was formed with the aim of saving the marine nature, nowadays the sea has been exploited for personal gain. Marine local content, in this case, does prevention and education for students to maintain the natural beauty of the sea. Learning marine local content is packed with fun activities but with the aim of marine nature conservation. Judging from the state of the marine environment in Tanjung Uma, there is a lot of garbage that pollutes the sea, especially the garbage, if the sea conditions recede, a lot of garbage will be seen in the coastal areas of the sea.

One of the activities carried out to reduce the accumulation of garbage around schools adjacent to the sea, students are accustomed to picking up 10 garbage in the seafront environment adjacent to the school before starting class learning. It aims to cultivate the character of students by not throwing garbage into the sea. It is hoped that in the future students will be able to continue to maintain marine conservation as a place to live. In implementing marine local content learning at the Integrated Islamic Elementary School Mahabbatul Haq, several things are needed that encourage individuals and groups so that learning objectives can be achieved in accordance with the planned goals. The strategy

applied in conveying the material and the character of love for nature in this case the sea at the Integrated Islamic Elementary School Mahabbatul Haq is to directly introduce and go directly to the field.

Creative and innovative learning is very much needed in the implementation of marine local content because it can minimize boredom but is in accordance with the planned objectives. To achieve this goal, Integrated Islamic Elementary School Mahabbatul Haq uses active, creative, innovative and recreational learning methods. According to Purnama et al. (2019) Active learning is learning that is oriented towards exploring student abilities, so that student learning outcomes are in accordance with what is desired but still on their personal characteristics. In addition, active learning aims to keep students' focus on the process they are going through.

Sustainability of education and learning cannot be separated from the support and emergence of a community and society. The existence of education aims to benefit the community in general and the local community in particular. Society is in a dual position, first as an object and second as a subject, both of which have interrelated functionalities. The position of the object marked by the community functions as an object in the acceptance of new prospective students, an absolute object needed in the learning process. While the community as a subject is in the form of community responses to promotions to place them in the learning process and the community has the full right to accept or reject these goals and processes (Gonzales, 2016).

The concept of marine local content at Integrated Islamic Elementary School Mahabbatul Haq is knowledge oriented to the marine environment which is implemented in coastal communities to produce ecological behavior, because in this case humans need to be aware of the types of actions they will take. Although in the course of an educational program, environmental education generally has a lot of impact on knowledge alone, in this study it was found that there was a relationship between environmental knowledge and the formation of human ecological behavior itself. From the information that has been presented, it can be said that the concept of local marine cargo is as follows:

- a. In accordance with the environmental characteristics of the Tanjung Uma area where the people are coastal communities and live in the sea area.

- b. Constructive in which the material applied is adapted to the environmental problems of the Tanjung Uma area, namely the lack of space for the introduction of Malay art and the garbage scattered at sea which is then poured into local content subjects, namely recycling.
- c. Marine environment perspective.

In this case it can be concluded that the local marine cargo is a curricular subject that discuss the preservation of marine nature by making the sea as an object of learning. The marine local content lesson also aims to maintain the wisdom of coastal communities by providing knowledge about marine rescue, processing various marine products and also maintaining the beauty of the sea. Where in this context that the Tanjung Uma area itself is an "Old Village" area, which is meant to be the territory of the original Malay tribes living in the Riau Islands region. So that cultural wisdom, cuisine and the environment must still be maintained and preserved.

B. The Arrangements of the Learning Programs

Environmentally friendly learning for children needs to be provided in every educational unit. This can provide experiences and opportunities for children to take good care of nature, such as cultivating gardens, caring for pets, and studying life systems so that children are closer to nature and develop natural intelligence through the surrounding environment (Liani, 2020).

Strategy has an important role in a learning process, so the strategy must be carefully designed and planned. Several components in the learning strategy are centered on teachers, students and teaching materials. A teacher-centered learning strategy is a teacher conveying information and knowledge to students, the delivery can be done with various techniques including lectures, teaching, demonstrations and interdisciplinary techniques.

The teacher in this case needs to often use nature such as national parks and forests to support the expansion of formal school education programs. Nature-based learning experiences allow students to apply theoretical knowledge in the field by finding real-world examples of principles, problems and other environmental issues in the area where students live. These experien-

ces are very important for students who live, study and spend most of their time in the environment where they live (Ballantyne & Packer, 2002)

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Some of the life skills activities that researchers can summarize are sourced from the local marine content syllabus at Integrated Islamic Elementary School Mahabbatul Haq, Batam City which is oriented towards maintaining the wisdom of coastal communities in the Tanjung Uma area of Batam City, as follows.

1. Recycling

Waste recycling activities are a program of learning marine local content. This is done with the aim of utilizing useless waste into creative or useful items. One of the waste recycling activities that has been carried out by Integrated Islamic Elementary School Mahabbatul Haq students is to recycle bottled waste into creative goods, in this case boats (sampans). The used bottle materials collected are the result of collecting garbage around the school and the sea in the Integrated Islamic Elementary School Mahabbatul Haq, Batam City. This activity is usually carried out at the final evaluation as the fulfillment of practical tasks. Apart from the use of used bottles, in this activity students are also invited to use shells, plastic waste and leaves to be processed into crafts.

2. Fun Eating

The Fun Eating activity or the utilization of marine potential aims to train students to understand the potential of marine resources and coastal areas and the importance of processing seafood, make observations and determine the right type of material to be processed and students can make simple preparations whose raw materials come from the sea. Fun Eating activities that have been carried out by students are making processed salted fish. This activity started with catching fish around the sea, but many of the students brought and selected fish directly from home. Processing of salted fish is carried out in schools and carried out in groups.

This is intended for children to cultivate the spirit of leadership and teamwork.

3. Fun Trip

Fun Trip activities or nature walks are carried out with the aim of providing meaningful student learning experiences by observing directly the objects they encounter and learn. Fun Trip is a learning activity that is directly related to nature where nature is a direct source of learning. According to Blum (2008, p. 60) states that,

In 2003, environmental education was provided in almost all local schools, although to varying degrees and in differing ways. While the diversity of school types in the region – state, private, religious, small, large, suggest that each one has a strict set of concerns regarding student progress and success, they also faced many of the same difficulties in terms of educational practice.

In this explanation, it is stated that since 2003 environmental education has been planned to be widely applied by all schools with various models and freed up by schools to adjust according to their environment. Through the Ministry of Environment in 2006 the Adiwiyata program was created, which is in accordance with the content of the marine curriculum that has been implemented at Integrated Islamic Elementary School Mahabbatul Haq, Batam City, in this case through mangrove planting programs, cleaning up garbage in the sea and utilizing marine products to protect nature and the marine environment.

The next activity in the Fun Trip is marine tourism to mangrove forests and beaches. The purpose of this activity is that students are able to carry out independent travel and camping activities and make observations. Introduce to students the urgency of mangroves in the sea area which is then expected that students can understand the importance of replanting mangroves. According to research conducted by Sagala et al. (2019), that educating students from an early age to have ecological awareness and not damage the earth is one alternative to reduce global warming. Based on the results of research found at the Lampung Natural School, it was found that the school had implemented a strict learning curriculum and discipline that students were expected to be able to manage the non-organic waste that had been provided. The nature school is an alternative solution to reduce global warming which is now getting

worse. Involving nature in the learning process can improve students' ability to collaborate on projects with others, function democratically to communicate with others, pay attention to self and others and teach manners in everyday life (Dymont & Bell, 2008).

C. The Influential Factors Upon the Program

According to the Riau Islands Bappeda (local development agency), the area of the Riau Islands Province is approximately 251,810.71 km² with a percentage of 96% being sea and 4% being land. The wide percentage of the sea is certainly followed by the development of coastal areas that are used as tourist attractions and residential areas, because they have a wealth of potential and prospective marine and fishery resources. The Tanjung Uma area is an area directly adjacent to the sea. Based on the news that was reported through the Antara Riau Islands website, Tanjung Uma is also one of the areas dubbed the "Old Village". Kampung Tua or Old Village is a group of houses that functioned as a place to live for the original inhabitants of Batam City before 1970 when Batam City began to be built which contains historical values, local culture and religion.

Indonesia's marine biodiversity is the largest in the world known as marine mega-biodiversity, because more than 10,000 species of marine biota have been identified. Economically, Indonesia's maritime potential is estimated at more than IDR 8,000 trillion/year. If this maritime potential is developed optimally, it will create new centers of economic growth that will spread proportionally throughout the territory of Indonesia to the outer islands and border areas. For this reason, a Maritime Curriculum is needed whose contents are structured from PAUD, SD/MI, SMP/MTS, to SMA/MA/SMK levels in an effort to develop Indonesia's future human resources in order to succeed in Indonesia's development mission as an independent, advanced, strong, and independent maritime country and based on national interest (Kemendikbud, 2017).

Along with this, Batam City Regional Regulation Number 1 of 2018 concerning the Advancement of Malay Culture stipulates that Malay local wisdom is the policy direction for Batam City. In line with this regulation, the Batam City Government together with the Malay Traditional Institute can improve the historical

aspects of Malay by introducing the "Malay" culture which is carried out through the forum and display of activities by Batam City residents.

One form of the "Malay" forum implemented by residents in the Tanjung Uma area is "Festival Kampung Tua Tanjung Uma" (Tanjung Uma old village festival). The festival concerns about the lack of space for Malay culture, it was stated that in this festival activity there were several activities that presented typical coastal food festivals, exhibitions of Malay heirlooms such as dagger, Tanjak (headbands for men) and performing arts (Festival Kampung Tua Tanjung Uma, 2018). From the description above, several factors can be categorized that affect the usefulness of applying marine local content at Integrated Islamic Elementary School Mahabbatul Haq in order to maintain the wisdom of coastal communities in the Tanjung Uma area including:

1. Environmental aspect

The learning applied in marine local content is based on the characteristics and conditions of the surrounding environment, namely the Integrated Islamic Elementary School Mahabbatul Haq, in Batam City which is directly adjacent to the sea. This situation makes knowledge of the introduction of the environment in which they live must be implemented, one of which is through subjects. The learning program implemented in marine local content that influences the preservation of coastal wisdom is contained in fun eating learning, this program provides an introduction to the selection of processed dishes and seafood, which preserves Malay culture through typical Malay cuisine, namely seafood.

In addition, in Fun Trip learning, children are invited to directly see the mangrove forests that are still beautiful and the mangroves where they live which have been cut down for the needs of the community itself such as building settlements, in this case the children are given knowledge of the causes and effects of natural exploitation in particular sea. Furthermore, planting mangroves will continue to preserve the Tanjung Uma Old Village area and its marine environment. The next learning program is waste recycling, where the results or products from this activity will later be exhibited in the Kampung Tua Festival organized by the Tanjung Uma region. The output of this activity is the maintenance of the cleanliness of the Tanjung Uma sea

from garbage that pollutes the marine area.

2. Cultural aspect

Learning programs that are in accordance with local content required by the Riau Islands Provincial Education Office regarding local content that refers to Malay cultural wisdom where marine local content chooses to apply introduction and theory related to the wisdom of coastal communities. This is also in accordance with the Batam City Regional Regulation concerning the Education Implementation System Article 86 paragraph 1 that, "Education Units organized by the Regional Government and the community can organize a civil curriculum that contains content based on local excellence".

This article states that in organizing an educational unit located in Batam City, it can organize a lesson content which contains local advantages in the Batam City area. According to research conducted by one of the students who took the theme related to local Malay wisdom in Batam City by Danuwidjojo et al. (2021). The results show that the narrow space for the delivery of Malay culture is one of them with the aim of preserving the wisdom of coastal communities and the lack of organizing art events as an effort to preserve cultural wisdom. So that through lessons on marine local content at Integrated Islamic Elementary School Mahabbatul Haq, it provides space for the younger generation to get a learning experience that contains environmental and cultural wisdom through subjects. The Malay cultural wisdom that participates in being preserved through local marine content subjects is by making simple crafts that utilize living and non-living objects in the sea.

CONCLUSION

Based on the results of the research that has been done, it can be concluded that in the implementation of local marine content, it is formed by considering the environment and the habits of the local community. The concept of marine local content is knowledge oriented to the marine environment that is implemented in coastal communities to produce ecological behavior, because in this case humans need to be aware of the types of actions they will take. The concept of local marine content is implemented based on environmental characteristics, is multi-disciplinary and has an insight into the marine environment. The lesson on marine local content also aims to maintain the wisdom of coastal

communities by providing knowledge about saving the sea, processing various marine products and also maintaining the beauty of the sea.

In the application of marine local content there are 2 factors that influence the reason why the application of marine local content at Integrated Islamic Elementary School Mahabbatul Haq, Batam City in supporting the preservation of the wisdom of coastal communities, namely (1) Environmental aspects, which are adapted to the environment where students live so that this learning does not deviate from the needs of social life and the environment. (2) the cultural aspect, namely marine local content providing space or a place for students to get to know their culture that is adapted to their ethnicity and characteristics, namely the marine environment and local Malay natives by teaching some Malay culture such as Gurindam, typical food and Malay identity, namely Tanjak.

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