

The Important of Maritime Education from an Early Age to Build Indonesian Identity as Maritime Country

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Abstract. Indonesia is an archipelagic state which has chance to become maritime country with adequate marine resources. One of government's effort to achieve the goal is improving the maritime education sector. The implementation of maritime education can be done from an early age education until high education. However, in the implementation there are many constraints as schools has no curriculum and operational guidelines and lack of experts in maritime. Based on the constraints, practical solution is needed as there must be coordination in ministry to make the program can be implemented well. Besides that, to support maritime learning process at schools needed curriculum and operational guidelines accordance with area condition and students needed. Next, the experts need to be adjusted with their competent and knowledge field.

Keywords: Maritime education, early age, maritime country

1. Introduction

Indonesia is known to the world as archipelagic state which strategic for national and international cruise line. Indonesia as archipelagic state has wide ocean where the island is surrounded by the ocean. Indonesia ocean areas should be challenge to be managed, maintained and protected for the benefit of Indonesian nation Marsetio [1]. Indonesian ocean in this case has become national assets which can function as resource of ecosystem energy, resource of food, and media of inter-island communication, trade areas, and socio-cultural exchanges. Indonesia has chance to become maritime axis since Indonesia's oceans are wide and support by adequate resource.

Muhammad [2] state that Indonesia not yet become maritime country because Indonesia's status is an archipelagic state. The characteristic of maritime country is country which can take advantage from the ocean, even that country does not have many ocean, but it has ability in technology, knowledge, equipment to manage the oceans. Therefore, there are many maritime countries which not become archipelagic state yet because they cannot take the advantages from the oceans. It means, if Indonesia wants to be the axis of world maritime, Indonesia must become maritime country.

To become maritime country, Motik & Djalal [3] Indonesia has to be able to manage and utilize the oceans. In short, maritime country has to be able to utilize all the aspect of oceans to welfare of the people and the progress of the nation and also has to be able to maintain the security of the oceans from law violation. Tinambunan [4] state that to support

Indonesia to become maritime country need role and participation of the community and government. As for the government's efforts in empowerment, it is by increasing natural resources through the education sector in order to be able to manage marine resources optimally.

Indrawanto [6] to realize the government's program to become maritime country from education sector, Coordinating Ministry of Maritime and Ministry of Education, Culture, Research and Technology design a new program named maritime curriculum. Maritime Curriculum program is started in 2018 with pilot project in 13 locations as Aceh, Banten, West Java, Jakarta, Bengkulu, Central Java, East Java, North Kalimantan, South Sulawesi, West Nusa Tenggara, Maluku, East Nusa Tenggara, and West Papua. Whereas, in 2018 maritime curriculum has been done in North Sumatra, Riau, West Sumatra, Bangka Belitung, Jambi, South Sumatra, Lampung, Jogjakarta, Bali, West Kalimantan, South Kalimantan, East Kalimantan, Central Kalimantan, West Sulawesi, Gorontalo, North Sulawesi, North Maluku and Papua. The aimed in maritime curriculum, students are expected to solve the problem especially in coast areas. Besides that, students are expected to increase their knowledge about maritime.

Maritime curriculum program is curriculum program based on historical maritime, culture value maritime, and potential maritime for increasing love for the homeland and spirit in defending the country with maritime character, Asrini [7]. The important of maritime education in Indonesian national development is to reach prosperity as maritime country, Indrawanto [6]. The aimed of maritime education is to build pattern of thought or point of view of our self and environment as a maritime country which can influence the thoughts, manners, and actions, Sulistyono [8]; Syarah, Yetti, Fridani, Yufiarti, Hapidin & Pupala [9]. Besides that, the aimed of maritime education is to introduce the potential of marine and fishery at coast of Indonesia to young generation, so that it can arouse the spirit of love for the sea in the community.

Furthermore, maritime education can shape human behavior and procedures as a society that has a love for the sea and utilization of all the potential of maritime wealth that exist in, above, and around the sea to meet the needs of people's live and economy of the country now and in the future, Siswanto [10]. Generally, it can be concluded that the aim of maritime education is to give extensive knowledge especially in how to manage high quality marine resource, Baylon [11].

In Indonesia, maritime education can be implemented from early age education until high education. Especially, in this case the highlight is maritime education for early age. Early age education in this case is the education before elementary school, it is the effort of coaching for new born until 6 years old to help physical and spiritual growth and development from formal, informal and non-formal way. In addition, in age of 0-6 years, the children's brain grows rapidly, so that brain can receive much information, Santrock [12]. This is the reason why maritime education is good for early age.

Besides that, the information is gotten by the children in learning process indirectly can grow their understanding of something, Gunawan, Wibowo, Purwanto & Sunawan [13]. The children understanding is the result of cognitive representation and the conception of children. This statement is strengthened by Garcia, Hart & Johnson-Ray dalam Santrock [12] state the children can learn how to find and construct about something that they learnt. One of the ways that can be used to help early age in understanding the material of learning is by increasing self-recognition of children visual, Baron & Donn [14]. In this case, teacher can give toys which can be used to introduce maritime method, for example, puzzle of the

underworld, Lego of ship, Kahirunnas, Hasmunir & Desfandi [15] and show the videos about history of Indonesia oceans, Cooper [16].

Maritime education for early age can be assume as the solution to increase human resource in the future, especially in manage the resource of the marine in Indonesia. However, until now there are many obstacles in implementation of maritime education in Indonesia because of lower integrity between ministries in coordination of program's implementation, Supriyadi [17]. Besides that, according to Siswanto [10] and Arini [7] schools do not have curriculum and operational guidelines which is suitable with the condition and students need, especially at coast. This issues also happened in Kenya, Helen [18] state that curriculum for early age is not applied correctly by the teachers at schools. It caused the society at coast of Indonesia do not understand how important to manage marine resource.

Another constraint is lack of expert who master's in marine world. That statement is suitable with Baylon & Santos [19], Gecara [20], dan Pallis & Adolf [21] state that lack of expert in maritime education, so that the transfer of maritime culture will be hampered because the lack of understanding about the material to the students. Especially in early age education the maritime theme has never been taught because the lack of ability and no guidelines to deliver the material to the students, Zellawati [22].

Pay attention for that, it is needed the practically solution as good coordination at ministry to build the program that has been developed. Besides that, to support the learning process of maritime, curriculum and operational guidelines is needed to be done suitable with the condition in the area and student's need, (Nurissobakh, Prameswari, Utomo & Radianto [23]; Ismail & Habibah [24]. In addition, using the experts need to be adapted in accordance with the scientific field.

To achieve the aim, in the development program of maritime education it has to put the characteristic of maritime and culture of nautical in learning process. In the future, hope that this activity can build the good character of Indonesian especially about local wisdom. The discussion of this research is about to explain the role of early age education using curriculum which is built up based on the condition of the area and student's need to optimize nautical potential.

2. Result and Discussion

Education is the process of changing the attitude and behavior of someone or people to be mature enough through education and training, Masnur [25]. Maritime is the part of activity in the ocean or marine especially about shipping, trade, national and international port named maritime activity, Djuanda [26]. Maritime education is an effort to change the attitude, build the behavior, self-controlling, and build the skill to manage marine resource, Indrawanto [6]. Besides that, according to Sahriana, Suminar & Pranoto [27] maritime education is an effort to give knowledge and introduce marine life to the children.

Marine education must be adjusted with the curriculum based on the knowledge of maritime history, maritime culture value, and maritime potential to increase love for the land and spirit of defending the country with maritime character, Asrini [7]. The important of maritime education in Indonesian national development is to reach prosperity and success as maritime country. Baylon & Santos [19] state that maritime education must be support by the facility, curriculum design and qualified learning method to produce qualified and competent resource.

Maritime education is important to be applied to students who study at coast school. The aim of maritime education is to give knowledge about how to manage qualified marine resource, Baylon [11]. Generally, managing marine resource need to be optimize to increase quality and prosperity the nation. Maritime is one of the main purpose development in Indonesia which focus on managing the marine resource. Besides that, to support the vision of development of national maritime is needed effort of curriculum diversification through insert more maritime characteristics and skills in education process, Kahirunnas, Hasmunir & Desfandi [15].

In Indonesia maritime education can be applied in early age until high education especially, in this case the highlight is maritime education for early age. Early age education in this case is the education before elementary school, it is the effort of coaching for new born until 6 years old to help physical and spiritual growth and development from formal, informal and non-formal way, Directorate Early Childhood Education [28]. In addition, Hatch [29] state that early childhood education focus on learning in cognitive development for children.

Early age education is important for children development as cognitive, affective and psych motoric because from the learning process children can decide for future education. Skjaeveland [30] state that children experience in early age learning is obtained through the environment can stimulate the children to have good understanding about something. That statement strengthens by Nurani in Early Childhood Education Directorate [31] state that early childhood education can develop their potential optimally, children become more independent, discipline, and easier to understand the knowledge optimally when study at elementary school.

Given the importance of early childhood education, it is appropriate for the children to get chance and good service in education. However, not all the early childhood gets the chance and service that appropriate with government program. Akrim & Harfiani [32] state that there are many early childhoods who have no receive qualified education facility. In addition, early childhood who have no receive qualified education facility are the children who live far from central government, central city and society who live far from transportation access, Early Childhood Education Directorate [31]. One of society who have many early childhoods but don't have qualified service is the children who live in the small island or gili. The right for children who live in gili is identical with other children, but this group have no qualified service in education.

Early childhood education is the educational process which aim to increase children basic potential through develop aspects in children simultaneously and sustainably, Sulistiani & Arya [33]. Education process can be developed the children's aspect simultaneously and sustainably will occur if the educational process is adapted to the experience, environment and daily conditions of the children. This statement is supported by Skjaeveland [30] said that the early childhood learning process must be adapted to environmental conditions in which they live by prioritizing local wisdom-based understanding. In this case, the development of basic potential will be maximized if the educational process is based on experience, knowledge and life problem faced by children on daily life. Therefore, early childhood education in archipelagic areas close to the coast needs to be prepared and the content of the educational process designed that is adapted to the characteristics of the local community.

Through maritime education, it is hoped that educational program service can balance all dimensions of competence, intelligence and developmental scope of every early childhood who attends education in early childhood education institution so that they become more effective and optimal. In general, the context and content of maritime education can be

introduced to the children can be form in maritime history, maritime cultural values, maritime potential, values of love for homeland and positive character of maritime as well as the advantages of Indonesia as a maritime nation and state. Each context and content of the material is integrated in every early childhood education unit starting from the education unit level curriculum (KTSP) to its operation in learning, Early Childhood Education Directorate [31].

Sulistiani & Arya [33] reveal the purpose of maritime education in Early childhood education unit in general to realize the personality of the students, attitudes, knowledge and skill related to maritime from an early age in order to strengthen the competence of students in the field of basic literacy, as a foothold in realizing Pancasila students from an early age that is line with the aims of national education. It is hoped that in every generation of the nation there will be a balance of ownership characters from an early age, namely continental (land) character, and maritime (oceanic) character. Thus, in the future Indonesia's human resources and become Pancasilaist citizens who have full capability in participating and advancing their nation.

The implementation of maritime education in each early childhood education unit or institution uses a diversified and harmonious integration approach. Meanwhile, the integration process of maritime education is carried out by unifying and transplanting the context and content of maritime education (starting from objectives, materials, activities, and assessments) and is carried out both at the preparation or planning stage, implementation to the evaluation stage. So, the approach to diversification and integration of maritime education in early childhood education unit or institutions will be implemented in entirety. The result of this diversification and integration will be seen clearly, both in KTSP document of the institution or unit, as well as the program documents developed, the methods activities are carried out, the media or learning resources used, as well as the assessment practices carried out, Early Childhood Education Directorate [31].

To produce an optimal quality of diversification and integration of maritime education based on the above stages, in its operations it still refers to the principles used in the implementation of the 2013 Early childhood education curriculum, named child-centered, contextually developed curriculum, covering all dimensions of competence and development program as the basis for forming the child's personality, paying attention to the next level of child development, considering children's learning methods, holistic integration, learning through play, providing learning experiences, paying attention and preserving socio-cultural characteristics. This statement reinforced by MacQuarrie, Nugent & Warden [34] who revealed that nature-based learning is a type of early childhood education that is very popular today and where learning emphasizes socio-cultural contexts that can have a major influence on children's learning practice in everyday life.

The maritime curriculum in this case is prepared by carrying out religious values and character values developed, including; honest leadership, creativity, responsible spirit, discipline, loving the sea, protecting the sea and preserving the marine environment. The application of fun, creative, participatory. The learning model is using a group, the realization of its activities in one day children will play which contain various activities. The special programs as the flagship program of this maritime Early Childhood Education unit are in the form of; (1) optimizing existing materials and tools in the marine coastal environment as the main natural material media; (2) introducing and instilling maritime education from an early age, including the introduction of maritime education from an early age, including the introduction of maritime-related arts and culture; (3) introduction of local wisdom related to the marine environment; (4) development of children's talents and interest with regard to

maritime affairs; (5) maritime ecotourism activities; (6) parenting activities; (7) family fun day; and (8) performing arts activities from and by the children. Learning activities carried out by utilizing the natural surroundings wrapped in local cultural wisdom are very good in increasing understanding of needs of students, MacQuarrie, Nugent & Warden [34]. In addition, learning using the natural environment is considered a learning and playing process that is very suitable for the needs of early childhood, Ouvry [35].

The learning strategies used in this archipelagic Early Childhood Education are as follows: (1) invites children to know the environment of the archipelago more carefully which includes biological potential, geography, socio-culture, profession and transportation. Through indoor and outdoor activities; [2] fostering children's love for archipelagic region which includes biological potential, geography, socio-culture, profession and transportation; (3) foster a sense of belonging, respect in children about the archipelagic environment which includes biological potential, geography, socio-culture, profession and transportation; and (4) introduce children to the environmental management of their archipelagic territory which includes biological potential, geography, socio-culture, profession and transportation.

3. Conclusion

Based on the discussion above it can be concluded that theoretically maritime education through internalization maritime culture with local wisdom indirectly can increase religion value and leadership value, honesty, creativity, responsibility, discipline, love the sea, protect the sea, and preserve the marine environment. One of the effort that can be done to develop maritime potential in Indonesia is increase education sector as the place to develop learner potential especially in early childhood education through developing curriculum in local wisdom basic according to learner's residence.

In addition, Alexander [36] state that it is interesting to do research about perspective natural learning, in this case is about maritime. This paper give description in producing new understanding about maritime education based on local culture of Indonesian coast. Besides that, to overcome prejudice and ambiguity, it is possible to use empirical and critical comparisons in future research. Furthermore, future research can develop a set of learning based on local wisdom as an alternative solution in conducting maritime learning so as to make easier for teachers to convey material to learners. By considering this, we have indirectly preserved the significant and meaningful culture of Indonesian nation, so that early childhood can gain an understanding of how nature is a regulation and resource that can play a central role in life.

References

- [1] Marsetio. (2013). *Aktualisasi peran pengawasan wilayah laut dalam mendukung pembangunan Indonesia sebagai Negara maritim yang tangguh*. Makalah. Yogyakarta: UNY.
- [2] Muhamad, S.V. (2014). Indonesia menuju poros maritim dunia. *Info Singkat, Hubungan Internasional*, 6, 5-8.
- [3] Motik, C., & Djalal, H. (2011). *Negara kepulauan menuju Negara maritim: 75 tahun Prof. Dr. Hasjim Djalal, M.A*. Jakarta: Lembaga Laut Indonesia.
- [4] Tinambunan, H.S.R. (2016). Pemberdayaan masyarakat desa pesisir melalui penguatan budaya maritim dalam menghadapi pasar bebas masyarakat ekonomi Asean. *Jurnal Hukum Fiat Justisia*, 10, 1-220.
- [5] Chabanet, P., Stoica, G., Carrière, S. M., Sabinot, C., Bedrossian, C., & Ferraris, J. (2018). Impact of the use of a teaching toolbox in an awareness campaign on children's representations of coral reefs. *Frontiers in Marine Science*, 5, 1-18.

- [6] Indrawanto, S. (2013). Pendidikan karakter maritim sebagai upaya memperkuat jiwa kemaritiman di tingkat satuan pendidikan Yayasan Hang Tuah. *Jurnal GENTA Prodi Pendidikan Sejarah*, 2, 1-16.
- [7] Asrini, T.N. (2019). Pendidikan maritime membangun jati diri Indonesia sebagai Negara maritim. *Jurnal Wawasan Sosial Budaya Maritim*, 1, 1-11.
- [8] Sulistiyono, S.T. (2016). Paradigma maritim dalam membangun Indonesia: Belajar dari sejarah. *Jurnal Lembaran Sejarah*, 12, 18-108.
- [9] Syarah, E., Yetti, E., Fridani, L., Yufiarti, Y., Hapidin, H., & Pupala, B. (2019). Electronic comics in elementary school science learning for marine conservation. *Jurnal Pendidikan IPA Indonesia*, 8, 500-511.
- [10] Siswanto, H.W. (2018). Pendidikan budaya bahari memperkuat jati diri bangsa. *Jurnal Pendidikan Ilmu Sosial*, 28, 204-222.
- [11] Baylon, A. M. (2009). *MAAP MET programs: Ensuring continuous supply of competent seafarers for the global maritime industry*. Paper presented at the 8th Annual Conference of AMFUF, Korea Maritime University, Bussan Korea.
- [12] Santrock, J.W. (2007). *Child Development, Eleven Edition*. University of Texas, Dallas: McGraw Hill Companies, Inc. All right reserved.
- [13] Gunawan, IMS, Wibowo, M.E., Purwanto, E., & Sunawan. (2019). Group counseling of values clarification to increase middle school student's empathy. *Psicologia Educativa*. 25 (2) 169-174.
- [14] Baron, A.R., & Donn B. (2005). *Psikologi sosial jilid 1*. Jakarta: Erlangga.
- [15] Kahirunnas, R., Hasmunir & Desfandi, M. (2020). Implementasi program kurikulum kemaritiman di SMK Negeri kota Sabang. *Jurnal Ilmiah Mahasiswa Pendidikan Geografi FKIP Unsyah*, 5, 115-124.
- [16] Cooper, H. (2002). *History in the early years*. London: Routledge.
- [17] Supriyadi. (2018). *Pentingnya penanaman budaya maritim sejak dini sebagai bentuk kewaspadaan nasional dalam mewujudkan Indonesia sebagai poros maritim dunia*. Bogor: Universitas Pertahanan Indonesia.
- [18] Hellen, K. (2020). Teacher preparedness in the implementation of early childhood education development curriculum in Kenya: A case of Baringo North sub County, Kenya. *Journal Of Humanities And Social Science (IOSR-JHSS)*, 24, 44-50.
- [19] Baylon, A.M., & Santos, V.E.M.R. (2011). The challenges in Phillipine maritime education and training. *International Journal of Innovative Interdisciplinary Research*, 1, 34-43.
- [20] Gecera, V. (2009). Understanding attrition in UK maritime education and training. *Globalisation, Societies and Education*, 7, 217-232.
- [21] Pallis, A.A., & Adolf, K.Y.NG. (2011). Pursuing maritime education: An empirical study of students' profiles, motivations and expectations. *Marit. Pol. Management*, 38, 369-393.
- [22] Zellawati, A. (2017). Mengasah kecerdasan naturalistik melalui pendidikan cinta kelautan pada anak usia dini. *Jurnal Sains dan Teknologi Maritim*, 17, 99-109.
- [23] Nurisshobakh, S., Prameswari, R., Utomo, L.P., & Radianto, D.O. (2018). Penanaman budaya kemaritiman pada pendidikan non formal (PAUD-TK) sebagai upaya peningkatan kesadaran Indonesia sebagai bangsa maritime untuk perkembangan sektor maritim berkelanjutan kedepannya. *Seminar Nasional UMSIDA, Menjadi Guru Profesional Menuju Generasi Emas Indonesia Tahun 2045*, 1, 105-112.
- [24] Ismail, K., & Habibah, S.N. (2020). Extention communication fisherwomen in ecotourism management is small islands. *Indonesia Journal of Tourism and Leisure*, 1, 50-60.
- [25] Masnur, M. (2011). *Pendidikan karakter*. Jakarta: PT. Bumi Aksara.
- [26] Djuanda. (2005). *Potret Negara Maritime Indonesia*. Jakarta: Sekretariat Departemen Kelautan dan Perikanan Indonesia.
- [27] Sahriana, N., Suminar, T., & Pranoto, Y.K.S. (2020). Development of maritime insight learning tools for ocean literacy in children aged 5-6 years old. *Journal of Primary Education*, 9, 536-545.
- [28] Direktorat PAUD. (2012). *Mengenal anak usia dini*. Diakses hari Rabu, 12 Oktober 2021 pada laman www.paud.kemdiknas.go.id.
- [29] Hatch, J.A. (2010). Rethinking the relationship between learning and development: Teaching for

- learning in early childhood classrooms. *The Educational Forum*, 74, 258-268.
- [30] Skjaeveland, Y. (2017). Learning history in early childhood: Teaching methods and children's understanding. *Contemporary Issues in Early Childhood*, 1, 1-15.
- [31] Direktorat PAUD. (2020). *Bahan ajar bimbingan teknis: Penerapan pendidikan kemaritiman di satuan PAUD (Program penguatan kompetensi literasi dasar sejak dini)*. Jakarta: Direktorat Jendral Paud, Pendidikan Dasar, Pendidikan Menengah Kementrian Pendidikan dan Kebudayaan.
- [32] Akrim, M., & Harfiani, R. (2019). Daily learning flow of inclusive education for early childhood. *Utopia y Praxis Latinoamericana*, 24, 132-140.
- [33] Sulistiani, W., & Arya, L. (2013) Model pembelajaran tematik berbasis kelautan dan kemaritiman pada anak usia dini di paud non formal. Prosiding. *Pendidikan yang Menumbuhkan Insan Pembelajar*.
- [34] MacQuarrie, S., Nugent, C., & Warden, C. (2015). Learning with nature and learning from others: Nature as setting and resource for early childhood education. *Journal of Adventure Education and Outdoor Learning*, 15, 1-23.
- [35] Ouvry, M. (2003). *Exercising muscles and minds: Outdoor play and the early year's curriculum*. London: British Association of Early Childhood Education.
- [36] Alexander, R. J. (2000). *Culture and pedagogy: International comparisons in primary education*. Oxford, UK: Blackwell.