



Systematic Literature Review: Trends Literacy Numeration in Maritime Materials Teaching Materials in the Digital Era

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Abstract

Study This aim for do a Related literature review on trend literacy teaching materials numeration in the material maritime For child age early in the digital era. Research methods used _ in the study This is the SLR (Systematic Literature Review) method. Data collection was carried out with document articles that have been studied similarly. The articles used are 17 articles from some journals national and international indexed by Google Scholar Semantic Scholar and Scopus published in 2013-2023, based on a study found that teaching materials _ maritime form printed and digital teaching materials. Printed maritime teaching materials in the form of modules, comic media, learning models Webb, form songs, form book education characters, suitcase media literacy, and form products. Whereas teaching materials in digital form only One teaching material viz shaped book story digital illustration entitled Baso and Pinisi For increase culture maritime child. Therefore _ that's necessary done develop teaching materials _ maritime so that it can help children increase their literacy and numeracy related to culture maritime in children's age early in a way maximum. Study This expectation can give insight and knowledge for teachers and parents specifically material, so can increase inner teacher creativity in making teaching materials. Study This clarifies and explains research previously about trend teaching materials _ maritime For growing literacy numeracy child age early in the digital era. And based on searches carried out Not yet found a study with the same topic.

Keywords: Literacy, numeracy, Maritime, SLRs

Introduction

Indonesia is known as a very strategic and established archipelagic country that tracks trading Goods nationally and internationally Indonesia has the opportunity to become axis

maritime Because of Indonesia's vast ocean and supported by sources of adequate power _ (Nuraeni et al., 2022) . Therefore _ that is Indonesia's maritime territory becomes a challenge For managing, maintaining, and protecting For interests Indonesian nation (Hidayat et al., 2023). Pollution in the environment sea can result in damage to sustainability life sea so that dangerous for health man. Besides that can threaten the development potency of city coast the (Pramudyanto, 2014) . This matter naturally will impact to ecosystem, habitat, and marine life and decline the quality environment coast. For managing coastal areas in a way sustainable and preserving the diversity of coastal areas (Sakurai R., 2017). The participation of local and stakeholders interest others is very necessary (Larry & Elvis, 2023).

The importance of education in maritime in the development of Indonesian national is To reach prosperity as a maritime country, (Indrawanto, 2013). Maritime education aims To build patterns of thinking or methods that look at self and environment We as a maritime country can influence the mind, Budi character, and action (Syarah, E., Yetti, E., Fridani, L., Yufiarti, Y., 2019) . One of the efforts To increase knowledge and interest in marine is education since early (Crec, AS, & Noventius, 2018) . Remember education childhood age is the foundation of education, then how good education has been introduced since early. Huge potential _ aged 0-4 years that reaches 50% and ages 4-6 reaches 30%. This matter explains the importance of education that is given during childhood age early.

The importance of growing literacy and numeracy in embedding culture and maritime affairs in children age early as formation character has a soul brave, become generation successor a brave nation, accustomed to thinking critically, understanding nature around, as well cultivate a sense of love to the sea (S. Nurisshobakh & Prameswari, 2018) . Children are expected can explore Indonesian nature which is beneficial for the sustainability nation and state.

Literature Review

Ability to fulfill needs Living in the 4.0 era requires every individual to own adaptive skills _ to follow current development. Ability to adapt, that's one of them is literacy. Literacy is part of the Skills basic that must _ mastered by students specifically children aged early enough to be able to do it and face challenges in life (Hendrayani, 2023). This matter influences the ability of children to face complex challenges _ complex, like thinking critically in solving problems, creativity, communication, and collaboration. Besides that, literacy and numeracy can form the quality character of every individual. Literacy and numeracy are important for experiencing education further and learning practical life alive, however, both also improve well-being economics, possibly change social inclusion, and support goals proclaimed by the Sustainable Development Goals (Rakes et al., 2017), (Bayley, 2022) . Sikora also explained that in this era digital literacy is very important and useful for children in problem-solving all at once succeed in education (Sikora et al., 2019) .

Existing maritime materials _ are introduced to children in PAUD institutions already a lot, however, still nature is general and not Specific. So, mostly material maritime Not yet touching essence maritime, where is literacy numeracy child age early load material customized maritime affairs with load curriculum related with material maritime. Compiled

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teaching materials customized with children's programs age early with nearby themes _ with children among them is My theme with sub-themes I Beach boy, me proud become child fishermen, and themes beauty natural with the theme of cooperation.

One of the matters most important and necessary known and emphasized in frame increase quality education is a learning medium from teaching materials. Teaching materials are part important in carrying out the learning process teaching. Materials _ the necessary materials _ taught in the learning process, so materials the important and interesting for supporting smooth teaching in the learning process.

Teaching materials are set tools or tool content learning _ material learning, methods, limitations, and paths evaluate in a way systematic what is designed and fun for reach objective his hopes, esp for reach competence or inability in all matter complexity. Understanding This explains that material education must designed and written with rule education Because will used by teachers to help and support the learning process.

Lots of it methods, tools, and media can be used To increase the quality of teaching materials. One of the possibilities is to use digital technology. Digital-based learning materials make learning easier and more practical for students without emitting Lots of cost. Study of digital material shows worth using in learning (Musdzalifah, 2013) . Digital teaching materials are integrated teaching materials technology information and computers (Safitri, ER, & Nurkamilah, 2020a) . This matter is supported by (Pratama, 2012) that use of Digital materials in the learning process is very effective and can increase the Skills of the student.

Research Method

This Study uses the SLR method (Systematic literature review), namely with method of identifying, assessing, evaluating, and interpreting. Researchers review systematic to several journals obtained _ with the following procedures that have been determined (Triandini 2019). As for the criteria article scientific use _ in the study, this is from article scientific sources _ from journals for at least 10 years. That is, it starts from 2013 to _ in 2023.

Procedures carried out by the researcher in looking for an article made scientific _ as research data literature is visited the website viz *Publish or* publish later choose a source that will be used including *Semantic Scholar*, *Google Scholar*, and *Scopus*. Then enter in search on keywords, namely numeracy literacy teaching materials for children and maritime materials. Based on the results of the search 17 journals were obtained nationally and internationally accredited. The article used is an article with relevant research _ although not similar. The results of study the summarized and discussed in the article.

Results and Discussion

The research data are entered in the review literature. This is an analysis and summary of documented articles _ about literacy numeracy material maritime affairs, and teaching materials for children aged early digital based as shown in the table below:

No.	Writer's name	Title	Results
1	Ryan Cooper Tauer/2013	Early Childhood Education; Maritime	Educational goals maritime This For realizing personality participants educate good attitude, knowledge, etc. Skills related to maritime or marine since age early in frame strengthening competence participant educate, as well can equip PAUD/Kindergarten teachers in knowability child. activity This focused on the teacher via the activity <i>Focus Group Discussion (FGD)</i> .
2	Titiek Suliyati, Murni Ramli	Maritime Expressions in Songs	Planting values and character maritime Already carried out by the Indonesian people to generation young from age early until mature through traditional verbal and experience gained _ from participation in the activity. From the words of this simple children's song, we get the picture that our ancestors were mighty warriors who knew no fear of crossing the ocean to a world that had no limits.
3	Fahmy Ulfah Mawaddah, Rien Safrina, and Hapidin /2023.	Picture Story Book "Baso and Broken Pinisi " to Improve Literacy Children's Maritime Culture.	Literacy culture maritime in children age early covers understanding, recognition, and application aspects of culture Indonesian maritime in the learning and teaching process. Study This aim for developing book media stories use digital images to increase literacy culture maritime in Indonesia.

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4	Rudi Walujo Prastianto , et al /2022.	Development of Literacy Materials Themed Technology Marine for Elementary School Students in Shaping Personal Love of the Sea from an Early Age.	One effort to return glory and glory Indonesian people in the maritime world must be started by building a nautical/maritime/maritime paradigm and mindset on the soul generation young since age early.
5	Nuraeni , Nuraeni Sarilah , Sarilah Lestari, Gunarti Yulianingsih , Wiwin /2022	The Importance of Maritime Education from an Early Age to Building Indonesian Identity as a Maritime Country.	Study This explains that maintenance education maritime can be done starting from education child age early until education tall.
6	Lesi Lesiani, Luluk Asmawati /2020.	Development of Introductory Teaching Materials Maritime Webbed Learning Model to Improve Naturalist Intelligence in Early Childhood	The purpose of the study This is to create introductory teaching materials maritime webbed learning model that can increase the intelligence of naturalist children 5-6 years old. Observation results beginning intelligence naturalist child Still low. The causal factors that is; (1) the child is not introduced to the environment closest, (2) the teacher isn't capable of compiling webbed learning , (3) no There is a theme special about maritime.
7	Lu'lu'il Maknun , et al /2023.	Activity Socialization of "Love to Eat Fish" and Introduction Product Fisheries in Early Childhood, Pemuteran	Research purposes To increase Community knowledge and understanding of the importance benefit eating fish from age. The nutrients available in fish are very much For the growth and intelligence brain and bones child.

		Village, District Gerokgak, Bali.	
8	Anita Diah Pahlewi , et al /2022.	BELA PASIR (Learning to Know the Sea, Beach, and Coast): Education for the Young Coastal Generation Landangan.	Purpose of service This For introduce and give outlook knowledge about coastal and marine.
9	Gunarti Dwi Lestari, et al /2022	Implementation Learning Based Maritime Affairs in Children 's Learning. Early Years for Playgroup Teachers in Districts Lamongan.	Research purposes This For increase the ability of family planning teachers to do development learning based maritime. This matter is intended To give an overview and improvement knowledge in development learning based on the environment natural around like area coast.
10	Tri Nadia Asrini /2019	Indonesian Maritime Education as a Maritime Country	the main purpose of the article is To show the return importance of education maritime in the development of the Indonesian national in frame reach Indonesia's prosperity and glory as a maritime country.
11	Nuraeni , Nuraeni Gunawan, I Made Sonny/2022	Internalization of Maritime Cultural Values Through Education to Grow Early Childhood Awareness: a Review	Study This explains that an effective way _ To increase awareness self-students is through learning at school.
12	Nurishshobakh , Silma, Empress , Resindra Utomo, Lutfi Prasetyo Radianto , Denny Oktavina /2018	Planting Culture Maritime Affairs in Non-Formal Education (Paud-TK) as an Improvement Effort Awareness of Indonesia as	Importance of embedding culture maritime affairs in education early This is as formation character and pattern think child as brave personality _ take risk worthy sailors must _ always think for take a risk when was at sea. So that when

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		Maritime Nation for Sustainable Maritime Sector Development In the future.	mature Indonesian children grow up to become generation successors brave nation _ take risks, get used to it think critically, understand nature around , so expected can explore Indonesian nature so beneficial for the sustainability nation and state
13	Hong, Jinhyun Thakuriah, Piyushimita (Vonu) Mason, Phil Lido, Catherine/2020	The role of numeracy and financial literacy skills in the relationship between information and communication technology use and travel behavior	Study This study is about the role of literacy influential numeracy _ on ICT and behavior somebody. Findings This shows that a child with a high level of literacy can read and use the internet with Good so can travel more Far compared to those who have Skills literacy more A little.
14	Sosu, Edward M Pimenta, Sofia M/2023	Early childhood education attendance and school readiness in low- and middle-income countries: The moderating role of family socioeconomic status	This study test the connection between attendance at educational programs and child age early readiness Study. Measure readiness literacy numeracy For readiness Study.
15	Sikora, Joanna Evans, MDR Kelley, Jonathan/2019	Scholarly culture: How books in adolescence enhance adult literacy, numeracy and technology skills in 31 societies	Study This proves that with embedded culture reading the book can increase literacy in children and is very profitable in solving _ problems.
16	Wohlwend, K	Research Directions: Play as a Literacy of Possibilities--	Study about book stories and literacy through use of print and non- print media For child .

		Expanding Meanings in Practices, Materials, and Spaces.	
17	Kovas, Y, Voronin, I, Kaydalov, A Malykh, S, Dale, P, Plomin, R/2013.	Literacy and Numeracy Are More Heritable Than Intelligence in Primary School	Study This explains that literacy and numeracy are the focus of teaching at school.

Literacy numeracy material maritime is something learning to develop inner child's abilities field underlying knowledge and attitudes _ reading and writing, As for the material maritime the aim For introduce potency maritime affairs and fisheries on the Indonesian coast to generation young, so can awaken Spirit Love sea in children. Importance embeds a culture of maritime affairs in education children age early as formation character, have a soul brave, grow to become a generation successor a brave nation, accustomed to thinking critically, understanding nature around them, as well cultivate a sense of love to sea (S. Nurisshobakh & Prameswari, 2018) . Children are expected can explore Indonesian nature which is beneficial for the sustainability nation and state. To cultivate a sense of love homeland and spirit to defend the country as well as my own character nautical, then required a history-oriented program nautical and pregnant mark culture as well as potency nautical so that needed introduction material about maritime (Asrini, 2019).

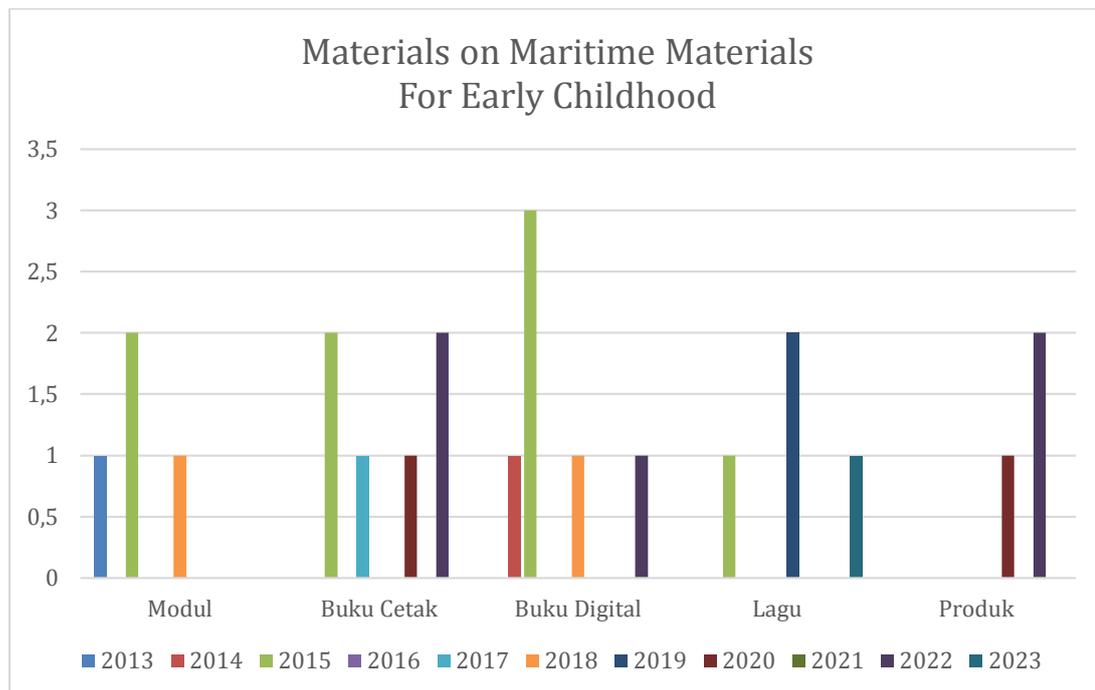
Literacy and numeracy a very important and necessary things given to children early as a strong foundation _ for increasing ability literacy and numeracy early (Iskandar & Hasbi, 2019) . Literacy Numeracy is the ability To use various related numbers and symbols _ with a mathematics base To solve problems practically in various contexts life daily. Literacy Numeracy in children age early pushed through the game. This includes counting, reading the clock, recognizing numbers, and lots of activities daily in the environment around the child.

Literacy teaching materials numeracy material maritime containing material content learning _ about marine. Compiled teaching materials customized with aspect development child age early so that easily understood by children. Material is part important in the learning process that occupies a strategic position and can _ determine the success Study teacher and influence to performance Study child. This matter in line with (Pohan, LA, Situmorang, M., & Jahro, 2016) which states that Teaching materials are educational media as supporting and strengthening in the learning process. Whereas (Safitri, ER, & Nurkamilah, 2020b) opinion that digital teaching materials are integrated teaching materials information and technology computerization . Teaching materials presented form application Android based . It's very easy to use , students only need install application on the device the android so that material can accessed with easy .

Based on results search a number of indexed journal _ Scopus , Semantic Scholar, and Google Scholar in the Publish or Perish application contain 17 journals packaged teaching

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materials in form book story , module , through songs , and forms products containing _ about literacy and materials maritime . Published material period 2013-2023.



Based on the graph above, is visible trend related digital teaching materials with literacy in material maritime classified still very minimal. Especially in digital teaching materials maritime in form book story. For child in the era of digitalization children more lots use up their time with gadgets. Book digital stories tracked in 2018 and 2022. Meanwhile, book prints good form book stories nor LKS books are tracked in 2017, 2020, and 2022. Meanwhile, the module was tracked in 2013 and 2018. So, can be concluded that the trend of digital teaching materials is still necessary, and necessary development more carry on.

Conclusion

17 journals packaged teaching materials in the form of book stories, modules, through songs, and forms products containing _ literacy and materials maritime. Published material period 2013-2023. In terms of teaching materials used for child age early especially related to material maritime categorized as still very limited, p This can be seen from the results search from several sources as already _ shown above. _ However, for teaching materials in digital form is necessary to develop teaching materials _ maritime to help children increase literacy and numeracy related to culture maritime in children age early in a way maximum..

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