The effect of character-charged maritime textbooks on increasing students' character values

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Article Info

Article history:

Received Nov 18, 2022 Revised Nov 2, 2023 Accepted Nov 25, 2023

Keywords:

Character values Character-charged Maritime Responsibility Students Textbooks

ABSTRACT

Teaching and learning activities for early childhood students currently do not support increasing the character values of graduates, and the emphasis is still on learning whose output leads to competency according to standards. Using character-charged maritime textbooks is a solution to assist teachers in facilitating the application of character values in marine learning. The purpose of this research is to evaluate the impact of character-focused marine textbooks on students' moral development. The method of research is quasiexperimental, with a pretest-posttest design. The sampling technique is convenience sampling. Two classes use the method, B1 for experimental purposes (with 80 students) and B2 for comparison (with 80 students). Independent T-tests were used in data analysis to compare differences in students' average scores in the experimental and control groups before the intervention. N-Gain was used to compare the character growth of control and intervention students. The study's findings indicate that students' character values significantly influence adoption of morally edifying maritime textbooks. This shows increased student character values, namely responsibility, honesty, discipline, love and affection, caring, courage, independence, and hard work, after being taught using character-charged maritime textbooks. Thus, it can be concluded that character-charged maritime textbooks can significantly increase students' character values.

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1. INTRODUCTION

Early childhood is the prime time for growth and development since the numerous psycho-physical components that form during this period will serve as the foundation for later development [1]. The problem of early childhood education is still fundamental, both the problem of equitable access and quality [2]. Early childhood education is a fundamental educational vehicle in providing a basic framework for forming and developing the basics of children's knowledge, attitudes, skills and character [3]. The success of education in the early period becomes the basis for the subsequent educational process [4]. Most early childhood teachers need to understand the purpose of child development fully, and most focus more on teaching reading, writing and numeracy with existing learning themes [5]. Few early childhood teachers can develop learning themes by seeing the potential in the surrounding environment [6]. The theme of learning in early childhood must continue to be designed, so that early childhood does not only learn from previous themes [7]. Still, it can be done by

developing themes based on the surrounding environment, such as marine and maritime, especially for areas around the coast/sea [8]. Developing themes based on their immediate environment will make it easier for children to capture learning [9]. As an effort to introduce and instill character values in maritime affairs. This is the generation that will lead Indonesia to its current Uniform Republic of Indonesia status, so they must learn about the sea at a young age [8].

Cultivating character values in Indonesia has conditions that still need to be improved [10]. Therefore, cultivating character values such as responsibility, honesty, discipline, love and compassion, caring, courage, independence, and hard work must be addressed again [11]. This is why it is essential to teach good character values from an early age [12]. Considering this will significantly impact a person's life in socialization in the community [3]. Data collected from classroom observations at kindergartens in Gili Trawangan, Pemenang District, North Lombok Regency, West Nusa Tenggara Province, Indonesia indicate that young children living in the island's coastal area lack the characteristics of responsibility, honesty, discipline, love and affection, caring, courage, independence, and good hard work as defined by societal norms. This is because parents allow their children to behave freely without any rules and explanations of which things are good and evil. The educational background of the people on this coast is low education so parents cannot provide examples and instill good character values that are appropriate for their children [13].

Development at an early age will be the basis for further development [14]. Children have temperamental traits related to their behavior character [15]. This is also associated with the matter of self-regulation of children. When children are accustomed to regulating themselves and not behaving temperamentally, they will learn from themselves to get used to the excellent character taught [13]. Other research on children's character discusses the likely character development and benefits of teaching ethics, focusing on the demands of existing conditions [16]. The cultivation of character values can occur under any conditions. That is, conditions can be a factor in the development of character values [17]. Character cultivation is essential. When a character is ignored, it can lead to individualist negative behavior traits [14]. Forming character values is critical for early childhood in knowing, loving and maintaining everything in the surrounding environment [18]. Children who have nautical character values are usually sensitive to causation that occurs in their environment [19].

Therefore, children must be introduced to their immediate environment through a predetermined theme per the kindergarten curriculum. The nautical theme is still a theme that has yet to be widely taught in kindergarten [8], [9]. Let alone in kindergartens located in non-coastal areas, even in coastal kindergartens, themes related to the marine environment have not been applied maturely, such as in Bina Lestari Gili Trawangan State Kindergarten, Pemenang District, North Lombok Regency, West Nusa Tenggara Province. Character values are essential for early childhood in recognizing, loving and maintaining everything in the surrounding environment [20]. Children who have maritime character values are usually sensitive to the causes and effects that occur in their environment [10], [11], [21]. Therefore, children must be introduced to their immediate environment through predetermined themes per the kindergarten curriculum. The current maritime theme is still a theme that has yet to be taught much in kindergarten. Let alone in kindergartens located in non-coastal areas, even in coastal kindergartens, articles related to the marine environment have yet to be thoughtfully applied, and the use of character-charged maritime textbooks has never been used because kindergarten teachers do not have sufficient skills to develop character-based marine textbooks in particular at Pembina State Kindergarten, Dasan Kindergarten, Maya TKN Seteluk, and Bina Lestari State Kindergarten in Gili Trawangan, Pemenang District, North Lombok Regency, West Nusa Tenggara Province.

This research gap discovered inconsistency of character ideals in early childhood students' learning [13], [22]. So far, the practical character values education model has yet to be applied to early childhood students [16], [17]. Teaching and learning activities of early childhood students at this time do not support the development of the character of graduates and still emphasize learning whose output leads to competence by standards [14], [23]. Character development in early childhood pupils is still in its early stages [24]. This is reflected in the findings of TK Negeri Bina Lestari Gili Trawangan, Pemenang District, North Lombok Regency, West Nusa Tenggara Province researchers, who discovered aspects of the character are currently not being taught at all levels of education, particularly at the early childhood education level. In general, textbooks for early childhood on the market only teach students about how to read, count, and write (Calistung) but pay less attention to the character values that students must own at an early age to behave accordingly in everyday life [8], [9]. How might textbooks be reconstructed to help shape students' personalities? To begin, textbooks must be associated with marine themes and people. It means standing on the character values that form the basis of life. That's how it is easier to internalize and implement. Second, textbooks must involve aspects that exist in character values. Third, textbooks must be relevant, connecting learning content to real-world applications. Therefore, one of the efforts that can be made to improve the character value of early childhood students, especially in the introduction of Bavarian, is through character-charged maritime textbooks. Character-charged maritime textbooks contain character values in the form of responsibility, honesty, discipline, love and affection, care, courage, independence, and hard work by connecting maritime themes in learning activities. For example, when kids are asked to color sea animals, they learn the value of being responsible. Honesty is important when students color sea animals based on their work. Students learn the subject by sorting pictures of sea creatures by how big they are and how small they are. They are also asked to name the colors of sea creatures and what they do. When students are introduced to the types of sea animals, love and affection are taught. Mindfulness is taught when sharing Educational Game Tools. Courage is seen when students ask the teacher. Giving out sheets of paper with drawings of sea animal patterns to color and highlight is a great way to teach independence. Work is done, and it is hard, just from coloring in marine animals. This is expected to improve students' character values through character-laden maritime textbooks and minimize the low maritime spirit of the Indonesian nation, starting from the lowest education unit, namely kindergarten.

The influence of culture, religion, morals, and local wisdom on the formation of pupils' character values has been the subject of numerous academic investigations [15], [18], [19], [25]. The role of the family civic environment in early and later life character development is also explored, as is the implementation of character education in early childhood education using local knowledge [14], [15], [26]. So, the new thing about this study is that it looks at how using character-focused maritime textbooks can help students become better people. The purpose of this research is to find out if character-focused marine textbooks can improve students' moral compass. The main research hypotheses discussed in this study are a significant increase in student character scores after the intervention using character-charged maritime textbooks.

2. RESEARCH METHOD

2.1. Research design

This research includes quantitative research using quasi-experimental research designs. This study used experimental and control classes based on the pretest-posttest experimental research design. Quasi-experimental is a research method at its core. Instead of assigning people at random, it makes advantage of preexisting groups [27]–[29]. These factors inform the quasi-experiment, ensuring that research learning occurs organically throughout implementation and that students do not feel as though they are subjects in an experiment. It is hoped that this will increase the reliability of the study. The design of the study is presented in Table 1.

Table 1. Design	of non-equivalen	t pretest-posttest control	group
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Class	Pretest	Treatment	Posttest	
Experiment	01	Х	01	
Control	O2	Y	O2	
O1: Preliminary	y observatio	ons (posttest) of	the experime	ental class

O2: Initial observation (posttest) of the control class

X: Treatment with Character-Charged Maritime Textbooks

Y: Treatment with Conventional Textbooks

O1: Final observation (posttest) of the experimental class

O2: Final observation (posttest) of the control class

2.2. Participants

This research was carried out from July-September 2022 in the odd semester of the 2022-2023 academic years at Pembina State Kindergarten, Dasan Kindergarten, Maya TKN Seteluk, and Bina Lestari State Kindergarten in Gili Trawangan, Pemenang District, North Lombok Regency, West Nusa Tenggara Province, Indonesia. The researchers chose the research location by conducting an initial survey to find out the condition of the location according to the research theme. Convenience sampling is used [30], in which a representative sample is drawn from a larger population because it is easy to do so. We selected a total of 160 pupils, 50 males and 110 females. The ages of the students range from five to six. Female educators with at least 10 years of experience instruct all classes. Class B1 samples were used for the experiment, whereas class B2 samples served as the controls. Character-charged marine textbooks are used in the experimental class, whereas traditional texts are used in the control group.

2.3. Research procedure

This research was carried out during eight meetings. At the first meeting, a pre-test was carried out on the experimental and control classes' students to determine their initial abilities before the treatment. After that, from the second to the seventh meeting, the experimental class used a marine textbook with a focus on character education, whereas the control class used textbooks provided by the National Education Department. The

treatment's efficacy was assessed with a post-test administered at the conclusion of the eighth session for both the experimental and control groups. Figure 1 presents the character-charged maritime textbook used in learning.



Figure 1. Character-charged maritime textbooks

2.4. Data collection instrument

A character values questionnaire (CVQ) was created for this research. This instrument was adapted from previous study [31], which consists of eight aspects; responsibility, honesty, discipline, love and affection, caring, courage, independence and hard work (Table 2). Early childhood students' operational definition and characteristics form the basis of the indicators described from this perspective. The CVQ instrument that has been developed includes 30 items with a Likert scale of 4, from 4 (always) to 1 (never). All items are positive. Example The CVQ instruments are as: "Children want to share Educational Game Tools during maritime theme learning activities", "Children dare to express their opinions when learning maritime themes", and "Children are accustomed to using their own educational game tools during learning activities." Table 2 depicts aspects of early childhood students' character values.

Aspects of chara	cter values assessment of early childhood students [
Measured aspects	Character value indicator
Responsibility	The child returns the object in place
	The child admits his mistakes
	The child completes the assigned task
Honesty	The child says an actual event
Discipline	Children are used to fighting
	The child puts something in its place
	The child follows the established rules
Love and affection	Child Sharing
	Children play together
Care	The child is sympathetic to the circumstances of others
	Children rejoice when listening to pleasant news
	Children are sad when they hear sad news
	The child is willing to help others
	The child shares with others
Courage	The child dares to express his opinion
	The child dares to ask questions
	The child dares to answer questions
	The child dares to tell his experiences
Independence	Children are used to wearing their own shoes
	The child is used to wearing his own clothes
	The child is used to using the toilet
	The child is used to eating alone
Hard work	The child performs activities seriously

Table 2. Aspects of character values assessment of early childhood students [32]

2.5. Validity of the character values instrument

The character values instrument undergoes a last expert examination before deployment. The procedure has been tested with a set of five Likert objects: 5 for extremely valid, 4 for valid, 3 for nearly valid, 2 for less valid, and 1 for invalid. As can be seen in Table 3, the validated score is transformed into five-dimensional qualitative data.

 $\begin{tabular}{|c|c|c|c|c|} \hline Table 3. Character values instrument validity criteria [29] \\ \hline \hline Validity Interval (Va) & Criteria \\ \hline Va > 4.21 & Very valid \\ \hline 3.40 < Va < 4.21 & Valid \\ \hline 2.60 < Va < 3.40 & Quite valid \\ \hline \end{tabular}$

Less valid

Invalid

1.79 < Va < 2.60

Va < 1.79

Based on the validation results obtained by 4.0, the instrument is classified as valid and meets the requirements to be used as a research instrument. Based on the test results using SPSS 26, the 30 items are valid criteria. The more detail is as shown in Table 4.

2.6. Reliability of the character values instrument

SPSS 26 (Cronbach alpha) was also used to analyze the reliability of the instrument used to measure character values. Table 5 displays the results of the analysis, which show that the reliability value for the entire set of 30 items is 0. 86 with very high criteria. The following are presented the results of the instrument reliability test of character values in Table 5.

2.7. Data analysis

Data normality was established by the normality test, and homogeneity was established via a comparison of two populations presumed to be normal via the homogeneity test [33]. Testing for normality in data is performed to guarantee that the data follows a normal distribution [34]. A decision-making test known as the Kolmogorov-Smirnov statistic was used to determine whether or not the data were normally distributed; if the significance level or probability value was less than 0.05, the data were considered to be abnormally distributed [30]. The data is regularly distributed if the significance/probability value is more significant than 0.05. They determined Asymp. values from normalcy test results [34]. Control group pre-and post-test Kolmogorov-Smirnov Z test values were 0.129 and 0.212. (Sig. 2-tailed). While the pre and post-test scores for the experimental group were 0.846 and 0.990. If the likelihood is less than or equal to (0.05), then H0 is rejected; else, H0 is accepted. Since the values of Asymp. Sig. (2-tailed) for the control group and the experimental group's pre-and post-test scores were 0.129 consecutively, 0.212, 0.84, and 0.990, respectively,

and were all greater than 0.05. We accept the null hypothesis (H0), which states that the control group and the experimental group's scores were drawn from a normally distributed population.

Table 4. T	he instrument vali	dity from cha	racter value
Items	Pearson correlation	Sig. (2-tailed)	Category
1	.650**	.001	Valid
2	.765**	.001	Valid
3	.463**	.002	Valid
4	.565**	.000	Valid
5	.551**	.002	Valid
6	.566**	.001	Valid
7	.566**	.003	Valid
8	.555**	.004	Valid
9	.541**	.002	Valid
10	.554**	.001	Valid
11	.583**	.000	Valid
12	.627**	.001	Valid
13	.682**	.001	Valid
14	.746**	.001	Valid
15	.552**	.003	Valid
16	.776**	.001	Valid
17	.516**	.002	Valid
18	.656**	.001	Valid
19	.544**	.002	Valid
20	.521**	.002	Valid
21	.530**	.002	Valid
22	.590**	.000	Valid
23	.729**	.001	Valid
24	.541**	.002	Valid
25	.544**	.001	Valid
26	.646**	.001	Valid
27	.526**	.002	Valid
28	.647**	.003	Valid
29	.776**	.001	Valid
30	.555**	.000	Valid

Table 4. The instrument validity from character values

Table 5. The in	nstrument reliabi	lity from cl	naracter values
	Cronbach's alpha	N of items	
	0.86	30	

The significance/probability of the pre-test value is 0.328, according to the test of homogeneity of variances results. If formulated, a hypothesis H0 is the same (homogeneous). Ha is not the same (inhomogeneous). If the probability of < the value of α (0.05) H0 is rejected. If, on the contrary, then H0 is accepted. Since the significance/probability values of the pre-test and post-test data of the two groups are 0.134 and 0.328>0.05, H0 is accepted. This indicates that there is no significant difference between the control and experimental groups regarding the change in scores from the pre-to post-test. Comparison of the significance/probability scores between the two groups, pre-and post-tests, reveals that the two data sets are statistically equivalent. The data are regularly distributed, as shown by the normality test, and the data are homogeneous, as shown by the homogeneity test, hence the precondition has been met.

Data analysis of significant differences in student character values before and after intervention using a t-test, namely the independent sample t-test. Researchers use this test because the data obtained are normal and homogeneous in the control class and experiments. T-test analyzed using the SPSS 26 program. Meanwhile, the data on the increase in student character values uses the normalized gain formula (g), the formula proposed by previous researchers [27].

$$Gain Normalized(g) = \frac{Spost-Spre}{Smaks-Spare}$$
(1)

The value's calculated outputs are then classified as one of three types as presented in Table 6.

Table 6. Gain value	criteria [28]
Average gain (%)	Criteria
$0 < g \le 30$	Low
$30 \le q \le 70$	Medium

High

3. RESULTS AND DISCUSSION

3.1. Improving student's character value through using character-charged maritime textbooks

 $70 < g \le 100$

To find out the differences in student character before and after the intervention. The following analysis test is the t-test. The t-test summary, as shown in Table 7, provides information on the magnitude of the F value and its significance. In the equal variances assumed source, F counts 0.971 with a significance of 0.328. Then the impact of simultaneous independent variables on dependent variables is significant. This means that the concurrent use of character-charged maritime textbooks has a significantly different effect on students' character than conventional textbooks. This means significant differences exist in students' character before and after using character-charged maritime textbooks. This is reinforced by Eliawati and Harahap [34] that marine learning can develop student character. Nuraeni and Gunawan [9] stated that internalizing nautical cultural values through education could foster early childhood awareness. According to Sahriana *et al.* [35], maritime insight learning tools can promote ocean literacy in children aged 5-6.

Marine teaching materials are a need for students to introduce maritime culture [36]. Maritime learning positively influences students [37], [38]. In teaching maritime education, the characteristics of a competent teacher are needed [39], [40]. The dimensions contained in the concept of competence are i) understanding the cognitive depth mastered; ii) the skills or talents possessed by a teacher to do the work assigned to him; iii) awareness of knowledge about the cognitive field, which means knowing what to do; iv) a high interest in something or doing something; v) attitude is a person's reaction to stimuli coming from outside; and vi) values are standards of behavior or attitudes that are psychologically believed to be integrated with a person [41], [42].

	Table 7. 1-lest student character varue data independent samples test									
		Levene's test for equality of T-test for equality of means variances								
		F	Sig.	Т	Df	Sig. (2- tailed)	Mean difference	Std. error difference		ence interval ifference Upper
Student character	Equal variances assumed	.971	.328	3.170	158	.002	4.34375	1.37040	1.60436	7.08314
	Equal variances not assumed			3.170	61.886	.002	4.34375	1.37040	1.60426	7.08324

Table 7. T-test student character value data independent samples test

The study compared the rate of improvement in students' character values between the experimental and control groups using N-gain. The N-gain analysis can be seen in Table 8. The table shows that the character values of students in the experimental group are higher than the control group. The character values of students who are the very dominant increase in the aspects of honesty (90%), hard work (80%), and courage (78%). Students' character values increased after being taught using character-charged maritime textbooks. This means that the use of character-charged maritime textbooks has a significant effect on increasing student character values. This is because character-charged maritime textbooks content are the main learning resource for students so that students can learn character values from everyday life can be found in maritime textbooks with an emphasis on character development; the material must be scientific, logical, systematic, developmentally appropriate, spiral structure, and visually attractive and instructive; character-focused maritime textbooks must be presented in a way that allows the reader to internalize the book's message of values and virtues; many learning activities that students may be able to carry out independently can be facilitated by presenting information in textbooks, leading to relatively permanent changes in skills, attitudes, and behavior.

Table 8. N-gain analysis of experimental class and control class								
	Control		% N-gain	% N-gain	Expe	riment	% N-gain	Criteria
Character aspect	Pretest	Posttest	(Control)	Criteria	Pretest	Posttest	(Experiment)	Criteria
Responsibility	40	60	33	Medium	45	85	73	High
Honesty	43	60	30	Low	50	95	90	High
Discipline	45	65	36	Medium	50	87	74	High
Love and affection	40	67	45	Medium	55	87	71	High
Care	45	67	40	Medium	50	87	74	High
Courage	50	70	40	Medium	55	90	78	High
Independence	45	65	36	Medium	50	85	70	High
Hard work	45	68	42	Medium	50	90	80	High
All sub-scales	44	65	38	Medium	51	88	76	High

Several relevant studies [43] suggested that introducing young children to the sea through carefully crafted textbooks can help them become more astute naturalists. Maritime-themed character education can support soft skills [44], [45]. Internalization of maritime culture with local wisdom through maritime education can indirectly foster religious values and leadership, more honest, more creative, more responsible, more disciplined, more in love with the sea, and more willing to protect and preserve the sea and the sea marine environment [8], [46]. Students' character scores can increase using textbooks [47]. Character values can be represented in textbooks [48], [49]. Maritime character education textbooks employ a wide range of engaging strategies, including as stories, music, poetry, rhymes, social activities, characterization of values, quotations from national and world leaders, reflection and assessment of attitudes following material presentations, and so on [47].

In addition, introducing maritime languages into maritime education has proven to increase student involvement in learning [50], [51]. Improving the education system to better support the growth of its students, especially in the preschool environment, can be done, among other things, by encouraging students to develop their innate maritime curiosity [52], [53]. Not only can one acquire moral principles through formal education, but one's environment also plays a vital role in shaping one's outlook and, ultimately, one's character [54]–[56]. The relationship between a person's character and pre-existing thought patterns, attitudes, and behaviors [57]–[59]. Character is a moral issue that requires consideration and empathy [60]–[63]. The goal of character education is to help students or children acquire a moral sense in relation to God, the natural world, and the community [35]–[37], [64].

4. CONCLUSION

Based on the results of the study, it shows that there is a significant influence of character-charged maritime textbooks on increasing student character values. This indicates that the use of character-filled maritime textbooks can effectively increase students' character values. The findings of this study have important implications for how character traits can best be developed in the classroom. One of the challenges in learning using character-charged maritime textbooks is the limited learning time in the classroom which requires students to study independently outside the classroom. So, this textbook is meant to be used in classrooms as a resource for teaching and learning about maritime topics while also bolstering character education.

ACKNOWLEDGEMENTS

The Director-General of Research, Technology, and Higher Education gave money to pay for this study (No. 072.d/L1/PP/UNDIKMA/2021). The Chancellor of Universitas Pendidikan Mandalika and the Director of the Mandalika Community Service Research Institute at Universitas Pendidikan Mandalika are both thanked for their encouragement and assistance.

REFERENCES

- [1] L. J. Jeti and Manan, "Coastal parents perceptions of the implementation of early childhood education in Buton Islands," *Jurnal Obsesi: Jurnal Pendidikan Anak Usia Dini*, vol. 6, no. 4, pp. 2656–2664, Jan. 2022, doi: 10.31004/obsesi.v6i4.2240.
- [2] B. A. Pletcher, M. O'Connor, M. E. Swift-Taylor, and M. DallaPiazza, "Adverse childhood experiences: a case-based workshop introducing medical students to trauma-informed care," *MedEdPORTAL*, Feb. 2019, doi: 10.15766/mep_2374-8265.10803.
- [3] Y. Z. Ansori, "Educator's strategy in cultivating honest character in early childhood," (in Indonesian), *Jurnal Obsesi: Jurnal Pendidikan Anak Usia Dini*, vol. 6, no. 1, pp. 261–270, Apr. 2021, doi: 10.31004/obsesi.v6i1.1208.
- [4] N. Aprianti and S. Sugito, "Learning in early childhood education during the COVID-19 pandemic: a literature review," (in Indonesian), Jurnal Obsesi: Jurnal Pendidikan Anak Usia Dini, vol. 6, no. 4, pp. 2785–2794, Feb. 2022, doi: 10.31004/obsesi.v6i4.1663.

- [5] S. S. Cahyati, T. Tukiyo, N. Saputra, J. Julyanthry, and H. Herman, "How to improve the quality of learning for early childhood? An implementation of education management in the industrial revolution era 4.0," *Jurnal Obsesi: Jurnal Pendidikan Anak Usia Dini*, vol. 6, no. 5, pp. 5437–5446, Aug. 2022, doi: 10.31004/obsesi.v6i5.2979.
- [6] A. Johnstone *et al.*, "Nature-based early childhood education and children's physical activity, sedentary behavior, motor competence, and other physical health outcomes: a mixed-methods systematic review," *Journal of Physical Activity and Health*, vol. 19, no. 6, pp. 456–472, Jun. 2022, doi: 10.1123/jpah.2021-0760.
- [7] E. N. Khofifah and S. Mufarochah, "Cultivating early childhood character values through habituation and exemplary," (in Indonesian), AT-THUFULY: Jurnal Pendidikan Islam Anak Usia Dini, vol. 2, no. 2, pp. 60–65, May 2022, doi: 10.37812/atthufuly.v2i2.579.
- [8] N. Nuraeni, S. Sarilah, G. Lestari, and W. Yulianingsih, "The important of maritime education from an early age to build Indonesian identity as maritime country," *Proceedings of the 3rd International Conference of Science Education in Industrial Revolution 4.0, ICONSEIR 2021*, 2022, doi: 10.4108/eai.21-12-2021.2317325.
- [9] N. Nuraeni and I. M. S. Gunawan, "Internalization of maritime cultural values through education to grow early childhood awareness: a review," *Prisma Sains: Jurnal Pengkajian Ilmu dan Pembelajaran Matematika dan IPA IKIP Mataram*, vol. 10, no. 1, pp. 131– 139, Jan. 2022, doi: 10.33394/j-ps.v10i1.4551.
- [10] E. S. Cahyaningrum, Sudaryani, and N. A. Purwanto, "Development of early childhood character values through habituation and example," (in Indonesian), Jurnal Pendidikan Anak, vol. 6, no. 2, pp. 203–213, Dec. 2017, doi: 10.21831/jpa.v6i2.17707.
- [11] I. K. Sudarsana, "Shaping children's character as the next generation of the nation through early childhood education," (in Indonesian), Purwadita: Jurnal Agama dan Budaya, vol. 1, no. 1, pp. 41–48, 2018.
- [12] C. A. Dewi, "Learning Problems from a Post-Pandemic Character Education Perspective," in Academics in expressing ideas, strategies and challenges in implementing PTMT, Tulungagung: Akademia Pustaka (in Indonesian), 2021, pp. 141–147.
- [13] R. E. McGrath, H. Han, M. Brown, and P. Meindl, "What does character education mean to character education experts? A prototype analysis of expert opinions," *Journal of Moral Education*, vol. 51, no. 2, pp. 219–237, Apr. 2022, doi: 10.1080/03057240.2020.1862073.
- [14] T. Ernawati, I. Suryani, and S. Sukiman, "Character education for children: the study on the good and bad values," *Jurnal Basicedu*, vol. 6, no. 2, pp. 2199–2207, Feb. 2022, doi: 10.31004/basicedu.v6i2.2350.
- [15] E. R. Dewi and A. A. Alam, "Transformation model for character education of students," *Cypriot Journal of Educational Sciences*, vol. 15, no. 5, pp. 1228–1237, Oct. 2020, doi: 10.18844/cjes.v15i5.5155.
- [16] Y. Afriani, N. Agustiningsih, and S. H. Karmela, "Character education in learning history of the Diponegoro war material," *Journal of Research in Instructional*, vol. 2, no. 1, pp. 19–32, Jun. 2022, doi: 10.30862/jri.v2i1.39.
- [17] H. Aswat, K. N. Tayibu, and Satriawati, "Teacher managerial strategy in building character education during the COVID-19 pandemic," *IJOLEH: International Journal of Education and Humanities*, vol. 1, no. 1, pp. 82–94, May 2022, doi: 10.56314/ijoleh.v1i1.42.
- [18] R. B. Kusumandari, "Character education model for early childhood based on e-learning and culture of Java," *Indonesian Journal of Early Childhood Education Studies*, vol. 2, no. 1, pp. 20–28, 2013.
- [19] Harun, A. Jaedun, Sudaryanti, and A. Manaf, "Dimensions of early childhood character education based on multicultural and community local wisdom," *International Journal of Instruction*, vol. 13, no. 2, pp. 365–380, Apr. 2020, doi: 10.29333/iji.2020.13225a.
- [20] S. Pajriah, A. Muin, A. N. Yahya, and S. N. Janan, "Value education model based on local wisdom in the Sunda Wiwitan society to improve students' character," (in Indonesian), *Jurnal Wahana Pendidikan*, vol. 7, no. 1, pp. 103–112, Jan. 2020, doi: 10.25157/wa.v7i1.3272.
- [21] V. Iswantiningtyas and W. Wulansari, "The importance of assessing early childhood character education," (in Indonesian), Proceedings of The ICECRS, vol. 1, no. 3, Mar. 2018, pp. 197–204, doi: 10.21070/picecrs.v1i3.1396.
- [22] R. Paul *et al.*, "A case-based, brief, intensive interprofessional education experience for school practitioners," *Journal of Allied Health*, vol. 49, no. 1, pp. e43--e50, 2020.
- [23] A. Akhiruddin, M. Wattimena, A. Nursida, S. Salehuddin, and R. Ridwan, "The role of the sociology teacher in implementing character education," *International Journal of Education and Humanities (IJOLEH)*, vol. 1, no. 1, pp. 71–81, 2022, doi: https://doi.org/10.56314/ijoleh.v1i1.38.
- [24] A. Rochadiana, S. Narimo, Y. Prastiwi, and L. E. Rahmawati, "The implementation of tembang macapat learning as a means of primary school character education," *Journal of Innovation in Educational and Cultural Research*, vol. 3, no. 4, pp. 508–518, Jun. 2022, doi: 10.46843/jiecr.v3i4.215.
- [25] H. Baharun, "Total moral quality: a new approach for character education in pesantren," Ulumuna, vol. 21, no. 1, pp. 57–80, Jun. 2017, doi: 10.20414/ujis.v21i1.1167.
- [26] J. Shubert, L. Wray-Lake, A. K. Syvertsen, and A. Metzger, "The role of family civic context in character development across childhood and adolescence," *Applied Developmental Science*, vol. 26, no. 1, pp. 15–30, Jan. 2022, doi: 10.1080/10888691.2019.1683452.
- [27] C. A. Dewi, "Improving creativity of prospective chemistry teacher through chemoentrepreneurship oriented inquiry module on colloid topics," *Journal of Physics: Conference Series*, vol. 1156, Jan. 2019, doi: 10.1088/1742-6596/1156/1/012017.
- [28] C. A. Dewi, M. Erna, M. Martini, I. Haris, and I. N. Kundera, "The effect of contextual collaborative learning based ethnoscience to increase student's scientific literacy ability," *Turkish Journal of Science Education*, vol. 18, no. 3, pp. 525–541, Sep. 2021, doi: 10.36681/tused.2021.88.
- [29] C. A. Dewi, M. Muhali, Y. Kurniasih, D. Lukitasari, and A. Sakban, "The impact of Google Classroom to increase students' information literacy," *International Journal of Evaluation and Research in Education (IJERE)*, vol. 11, no. 2, pp. 1005–1014, Jun. 2022, doi: 10.11591/ijere.v11i2.22237.
- [30] A. Tanzeh and S. Arikunto, "Research methods research methods (in Indonesian)," Metode Penelitian, vol. 43, pp. 22–34, 2020.
- [31] L. Nur, L. A. Nurani, D. Suryana, and A. Ahmad, "Rasch model application on character development instrument for elementary school," *International Journal of Learning, Teaching and Educational Research*, vol. 19, no. 3, pp. 437–459, Apr. 2020, doi: 10.26803/ijlter.19.3.24.
- [32] S. Sugiyono, *Educational research methods: quantitative, qualitative and R&D approaches.* Bandung: Alfabeta (in Indonesian), 2015.
- [33] D. Sugiyono, *Educational research methods with quantitative, qualitative and R&D approaches.* Bandung: Alfabeta (in Indonesian), 2013.
- [34] T. Eliawati and D. I. Harahap, "Character development of students through the learning of English maritime," *Journal MELT (Medium for English Language Teaching)*, vol. 4, no. 2, pp. 170–190, Jun. 2019, doi: 10.22303/melt.4.2.2019.170-190.

- [35] N. Sahriana, T. Suminar, and Y. K. S. Pranoto, "Development of maritime insight learning tools for ocean literacy in children aged 5-6 years old," *Journal of Primary Education*, vol. 9, no. 5, pp. 536–545, Dec. 2020, doi: 10.15294/jpe.v9i5.43530.
- [36] A. Sulistiono, Y. A. Hafita, A. S. Bhahri, W. Risianto, and M. T. Kariadi, "Developing maritime English materials for merchant marine polytechnic students based on need analysis," *Ilkogretim Online - Elementary Education Online*, vol. 20, no. 1, pp. 1115– 1122, Jan. 2021, doi: 10.17051/ilkonline.2021.01.114.
- [37] L. P. Anggraini, Ernis, and J. M. Jelenska, "Students' perceptions towards ideal maritime English teacher," *Biormatika: Jurnal Ilmiah Fakultas Keguruan dan Ilmu Pendidikan*, vol. 6, no. 2, pp. 29–35, Sep. 2020, doi: 10.35569/biormatika.v6i02.796.
- [38] S. Hidayati, I. Abdulhak, D. Wahyudin, and Rusman, "The influence of the maritime learning activities on the development of student competencies: case study," *International Journal of Education and Practice*, vol. 8, no. 3, pp. 379–393, 2020, doi: 10.18488/journal.61.2020.83.379.393.
- [39] S. Wardoyo, S. Soenarto, D. Mardapi, I. W. Djatmiko, and W. Pratama, "Professional competence requirements for maritime teachers in Indonesia," *International Journal of Advanced Science and Technology*, vol. 29, no. 1, pp. 1504–1516, 2020.
- [40] S. B. Ajar and G. A. Tjahjono, "Teacher's readiness in learning maritime materials," *GeoEco*, vol. 6, no. 1, pp. 82–89, Jan. 2020, doi: 10.20961/ge.v6i1.37930.
- [41] L. D. Gerganov, "Training of specialists in marine crew training facilities in Ukraine using the current generation of simulators is the basis of maritime safety," *Edukacja-Technika-Informatyka*, vol. 1, no. 5, pp. 229–235, 2014.
- [42] L. C. Stan, "Online teaching technique in maritime learning process," *Procedia Social and Behavioral Sciences*, vol. 116, pp. 4517–4520, Feb. 2014, doi: 10.1016/j.sbspro.2014.01.977.
 [43] L. Lesiani and L. Asmawati, "Development of learning materials for introduction to maritime webbed learning models to improve early
- [43] L. Lesiani and L. Asmawati, "Development of learning materials for introduction to maritime webbed learning models to improve early childhood naturalist intelligence," (in Indonesian), *Jurnal Teknologi Pendidikan dan Pembelajaran*, vol. 7, no. 1, pp. 54–70, 2020, [Online]. Available: https://jurnal.untirta.ac.id/index.php/JTPPm/article/view/10675.
- [44] L. F. Mahadi, B. Rubini, and R. Retnowati, "Development of character education model ability of influence attitude (AIA)-neuro based on local wisdom in effort soft skills improvements on shipping vocational education," *Journal of Industrial Engineering & Management Research*, vol. 3, no. 3, pp. 119–173, 2022.
- [45] H. Nufus and U. Kasim, "A discussion of learning maritime English by utilizing authentic video in speaking skill," *English Education Journal*, vol. 9, no. 4, pp. 632–660, 2018.
- [46] R. Hopcraft, K. Tam, J. D. P. Misas, K. Moara-Nkwe, and K. Jones, "Developing a maritime cyber safety culture: improving safety of operations," *Maritime Technology and Research*, vol. 5, no. 1, p. 258750, Aug. 2022, doi: 10.33175/mtr.2023.258750.
- [47] K. Komalasari and D. Saripudin, "The influence of living values education-based civic education textbook on student's character formation," *International Journal of Instruction*, vol. 11, no. 1, pp. 395–410, Jan. 2018, doi: 10.12973/iji.2018.11127a.
- [48] B. H. C. Khosiyono, S. Rochmiyati, I. Ghozali, S. J. Temitope, M. Fajarudin, and A. M. Suharyanto, "Representation of character education values based on Lickona's perspective in English textbook at Indonesian elementary school," *Tamansiswa International Journal in Education and Science*, vol. 4, no. 1, pp. 53–59, Oct. 2022, doi: 10.30738/tijes.v4i1.13518.
- [49] S. Rocmiyati, B. H. C. Khosiyono, I. Nartani, A. D. Nurmawati, A. Hamida, and C. Pangestuningtyas, "Representation of character education to realize pancasila student profile of Indonesian textbook in elementary school," in *The 4th International Conference on Technology, Education and Sciences*, 2022, pp. 178–187.
- [50] B. Jigena et al., "Improving the learning process in the subject of basic maritime training using GPS and Google Earth as useful tools," in *International Technology, Education and Development Conference*, Mar. 2016, pp. 6161–6171, doi: 10.21125/inted.2016.0465.
- [51] M. Jović, E. Tijan, D. Žgaljić, and S. Aksentijević, "Improving maritime transport sustainability using blockchain-based information exchange," *Sustainability*, vol. 12, no. 21, Oct. 2020, doi: 10.3390/su12218866.
- [52] F. Douvere and C. N. Ehler, "The importance of monitoring and evaluation in adaptive maritime spatial planning," *Journal of Coastal Conservation*, vol. 15, no. 2, pp. 305–311, Jun. 2011, doi: 10.1007/s11852-010-0100-9.
- [53] C. Ehler, J. Zaucha, and K. Gee, "Maritime/marine spatial planning at the interface of research and practice," in *Maritime Spatial Planning*, vol. 15, no. 2, Cham: Springer International Publishing, 2019, pp. 1–21, doi: 10.1007/978-3-319-98696-8_1.
- [54] T. Kvernbekk, "On the possibility of interventions aimed at improving character," in *Conference of Jubilee Centre, Oriel College*, Oxford, 2014.
- [55] F. Mayar, F. W. Putra, and R. P. Fadli, "Free drawing learning to recognize children's characters," *International Journal of Evaluation and Research in Education (IJERE)*, vol. 11, no. 2, pp. 810–816, Jun. 2022, doi: 10.11591/jiere.v11i2.21790.
- Evaluation and Research in Education (IJERE), vol. 11, no. 2, pp. 810–816, Jun. 2022, doi: 10.11591/ijere.v11i2.21790.
 [56] H. C. A. Kistoro, C. Setiawan, E. Latipah, and H. Putranta, "Teacher's experiences in character education for autistic children," International Journal of Evaluation and Research in Education (IJERE), vol. 10, no. 1, pp. 65–77, Mar. 2021, doi: 10.11591/ijere.v10i1.20743.
- [57] M. Makhroji and I. Imran, "Improving character education strengthening through Edmodo-based e-learning," *Budapest International Research and Critics Institute (BIRCI-Journal): Humanities and Social Sciences*, vol. 3, no. 3, pp. 2262–2267, Aug. 2020, doi: 10.33258/birci.v3i3.1159.
- [58] A. Tohri, A. Rasyad, M. Sururuddin, and L. M. Istiqlal, "The urgency of Sasak local wisdom-based character education for elementary school in East Lombok, Indonesia," *International Journal of Evaluation and Research in Education (IJERE)*, vol. 11, no. 1, pp. 333–344, Mar. 2022, doi: 10.11591/ijere.v11i1.21869.
- [59] L. Lukman et al., "Effective teachers' personality in strengthening character education," International Journal of Evaluation and Research in Education (IJERE), vol. 10, no. 2, pp. 512–521, Jun. 2021, doi: 10.11591/ijere.v10i2.21629.
- [60] Arifin, "Multimedia development to improve character analysis thinking skills through value-based learning approaches," *Jurnal Konseling dan Pendidikan*, vol. 9, no. 1, pp. 24–27, Feb. 2021, doi: 10.29210/154000.
- [61] Mustolikh, D. Budimansyah, Darsiharjo, and E. S. Nurdin, "Blended learning strategy on disaster mitigation learning to improve character care of the environment," *Journal of Physics: Conference Series*, vol. 1464, no. 1, Feb. 2020, doi: 10.1088/1742-6596/1464/1/012041.
- [62] E. Oktarina and A. F. Nisa, "Development of environmental care-based curriculum in improving character education in elementary schools," JHSS (Journal Of Humanities And Social Studies), vol. 5, no. 2, pp. 126–130, Aug. 2021, doi: 10.33751/jhss.v5i2.3713.
- [63] M. Junaedi and F. Syukur, "Moral education in Japanese schools a model for improving character education in Indonesia," Analisa: Journal of Social Science and Religion, vol. 2, no. 01, pp. 23–40, Jul. 2017, doi: 10.18784/analisa.v2i01.416.
- [64] M. S. Chaturvedi and A. A. Kurshid, "ASIC implementation for improved character recognition and classification using SNN model," *Procedia Computer Science*, vol. 62, pp. 151–158, 2015, doi: 10.1016/j.procs.2015.08.428.

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