



Research Article

Student Perception on Teaching Materials Development to Increase Students' Knowledge of Aceh's Maritime Potential

RIDHWAN^{1,2}, SUMARMI³, I Nyoman RUJA⁴, Dwiyono Hari UTOMO⁵,
Rima Meilita SARI⁶

Abstract

Aceh has the potential as a world trade route, fish catch lane and marine tourism in Indonesia. Therefore, students' knowledge of Aceh's maritime potential needs to be developed. The purpose of this study was to determine student perceptions of teaching materials to Increase Students' Knowledge of Aceh's Maritime Potential. This study used quantitative research design. The results of the study were obtained from the answers to the questionnaires that were developed, validated, and tested by researchers. The results were analyzed through descriptive statistics. The results of the study indicate that geography education students need teaching materials to Increase Students' Knowledge of Aceh's Maritime Potential. Teaching materials were very important to be developed because there was no teaching material and students' knowledge of Aceh's maritime potential was very lacking. Based on the research, it was suggested to develop teaching materials to increase students' knowledge of the Aceh Maritime Potential comprehensively.

Keywords:

perception, teaching materials, maritime knowledge

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¹Doctoral Candidate, Geography Education Program Universitas Negeri Malang, Indonesia. Email: ridhwan.awan.10@gmail.com. Orcid no: 0000-0002-0466-6040

²Lecturer, Geography Education Department, STKIP AL-Washliyah, Indonesia

³Professor, Researchers, Lecturer, Geography Education Department, Universitas Negeri Malang, Indonesia . Email: sumarmi.fis@um.ac.id Orcid no: 0000-0002-3102-0376

⁴Assoc Prof, Lecturer, Geography Education Department, Universitas Negeri Malang, Indonesia . Email: nyoman.ruja.fis@um.ac.id Orcid no: 0000-0002-9308-8229

⁵Assoc Prof, Lecturer, Geography Education Department, Universitas Negeri Malang, Indonesia . Email: dwiyono.hari.fis@um.ac.id Orcid no: [0000-0002-4205-1063](https://orcid.org/0000-0002-4205-1063)

⁶Lecturer, Geography Education Department, STKIP AL-Washliyah, Indonesia. E-mail: rima.sari2121@gmail.com. Orcid no: [0000-0002-1252-9513](https://orcid.org/0000-0002-1252-9513)

Introduction

Geography education is an important subject discussed at the School. Geography examines the biotic and abiotic aspects. geography uses spatial and environmental analysis (Hayati, *et all*, 2016). Geography has become a science that is rich in the process of analyzing the causal relationship between biotic, abiotic and human culture (Sumarmi & Amirudin, 2014). Based on this, geography has a broad object of study and an in-depth subject analysis process.

Maritime education examines information about the relationship of the ocean to living systems, especially human activities around the sea (Forbes, 2014). Maritime education requires geographical analysis in spatial, regional and environmental perspectives to obtain comprehensive information.

The national learning curriculum in Indonesia has begun to include maritime material. This can be seen through the inclusion of potential Indonesian maritime resources in geography (Tika, *et all*, 2017; Sugiyanto & Endarto, 2017). One of the reasons is related to the potential of fisheries resources and underwater wealth that can be a potential tourism and maritime research laboratory. Furthermore, maritime potential in Indonesia is very large from Sumatra island to Papua island.

Aceh is the westernmost province of Indonesia, which borders directly with the Indian Ocean. Based on its strategic location, Aceh has great maritime potential along its coastline. One such potential is that Aceh lies in the international trade route where ships enter through the Malacca Strait. From a historical point of view, Aceh once had glory in the maritime field during the kingdom of Aceh Darussalam (Hasyim, 2018).

Furthermore, Aceh also has a long coastline that runs along the west to east. The coastline commonly called the coast has various potentials (Sugandi, 2011). Potentials obtained from coastal areas include fisheries, tourism, transportation and trade (Forbes, 2014). This potential should be managed to provide sustainable benefits. However, the problems occurred are that many people still do not know and are not aware of their maritime potential.

The impact of lack of knowledge and awareness of maritime potential is the emergence of problems. This can be seen from the lack of utilization of maritime potential. As in the case of catching fish using trawlers by a number of fishermen in Banda Aceh (Anshar, 2019). This occurred due to the limited knowledge of the community on the management and processing of fishery products. The next case related to the widespread use of fish bombs to catch fish in the sea (Hazliansyah, 2014). This will have an impact on the destruction of marine ecosystems. Furthermore, problems with climate change have an impact on marine resources in general such as high seawater temperatures and seawater salinity (Sumarmi & Purwanto 2017; Sumarmi, Bachri, & Tanjung, 2019).

Solution that can be taken to overcome problems related to Aceh's maritime potential are through instilling maritime knowledge. This can be done through learning pathways in schools (Haryanto, 2010; Kusumawati & Huang, 2015; Fuad & Musa, 2017). The geography learning connects interactions between humans and the environment to achieve ecological balance (Sumarmi, 2015). It is a responsibility of humans to protect the environment so that environmental degradation does not get worse. Instilling maritime knowledge required learning support components. One of which is teaching material.

Teaching material aims to support learning activities. Teaching materials can also facilitate the achievement of learning goals from cognitive, affective, and psychomotor aspects (Darnita, Marhaeni, & Candiasa, 2014). However, the problem is in higher education. Therefore, it is necessary to develop teaching materials to increase knowledge of Aceh's maritime potential because geomaritime teaching materials are very difficult to obtain.

To develop teaching materials, several stages are needed. One of the stages is the analysis of development needs. This analysis aims to determine the importance of developing a product. For example the weaknesses of a product or implementation problems can be identified by conducting a needs analysis. Need analysis becomes the basis for the development of a product. Needs analysis is also referred to as a formal process in determining the gaps in the field with what should be available (Sari, *et al*, 2019a). The needs analysis requires analysis of the curriculum, learning conditions, and perception. Perception is very important to consider in developing teaching materials because the developer knows the real situation on the field with perception (Sari, *et al*, 2019b). It is included problems in the field and expectations of the problem to be solved. Furthermore, knowing perceptions is also needed so that the teaching materials that will be produced can be implemented effectively to the user.

This research is a needs analysis of Aceh's maritime potential material development. This study aimed to determine students' perceptions of teaching materials to increase Aceh's maritime potential knowledge. The results of this study were expected to be the basis for developing teaching materials for Aceh's maritime potential.

Problem of Research

Researchers founded several developments in maritime learning. A case of research from Ahmmed (2018) was discussed several factors that influence maritime learning and teaching. Furthermore, research from Dirgeyasa (2018) was evaluated the need for maritime English learning materials based on curriculum analysis in Indonesia in 2010. However, an analysis of the needs for developing maritime teaching materials has not yet been found. especially that has been examined from the student's perspective. Research on analyzing the need for teaching materials through analysis

of student perspectives is very important to do. This was caused the main subject of maritime learning was students and students was the main users of teaching materials during learning activities. Therefore, this study aims to determine the need for developing maritime teaching materials in terms of student perceptions. This research study is how students' perceptions of the development of maritime teaching materials are viewed from ease to understanding, conformity to learning, Conformity to Material, Conformity to the real phenomenon, and Attractiveness of Display. This research was expected to be the basis of steps to develop knowledge of the Aceh maritime through teaching material.

Method

Research Model

The study aimed to determine students' perceptions of teaching materials of Aceh's maritime potential. The study produced quantitative data obtained from students' responses to the perception instruments of teaching materials of Aceh's maritime potential.

Participants

To determine the student's perception of teaching materials development, the study was involved 46 students from Education College Banda Aceh, Indonesia, which consisted of 20 men and 16 female students. Age students range from 18 -31 years old. The majority of students are indigenous to Aceh and reside in the tsunami affected areas of 2004. The questionnaire contained 28 questions consisting of five indicators: 1) ease to understanding (5 items), 2) conformity to learning (6 items), 3) conformity to material (5 items), 4) conformity to the real phenomenon (5 items), 5) Attractive items of display (7 items). The study was conducted in June 2019.

Data Collection

The research used students' perception instruments towards teaching materials in Aceh's maritime potential. The instrument was independently developed by researchers through a comprehensive literature study of teaching material needs. After going through a literature study, the instrument was then validated by a linguist. The language used in the test was validated so that the instrument complies with the rules of using Indonesian and is easy for respondents to understand. Instruments that do not yet have a high validity coefficient ($> 75\%$) were then revised, while instruments that have reached a validity coefficient of 75% were ready to be tested. the research flow can be seen in Figure 1.

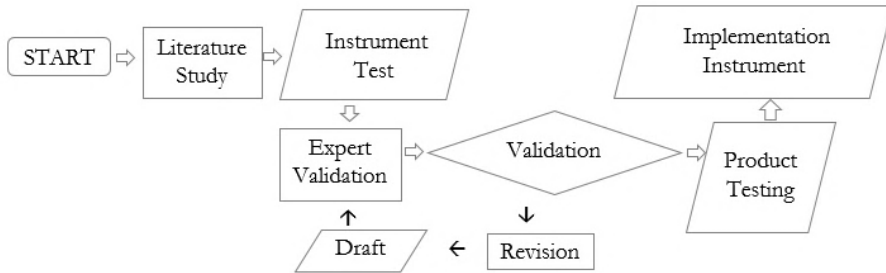


Figure 1.
The Research Flow on Instrument Development

The instrument that had received an assessment and input from experts was then trialled to 20 students of Education College in Banda Aceh. The instrument consisted of 30 questions with four rating scales from 1 (strongly disagree) to 4 (strongly agree). After conducting the trial, the instrument was then implemented to the geography education student of 2018 batch. The trial results produced 28 valid questions and 2 less valid so they were revised. Based on the reliability test, the instrument was reliable with a Cronbach alpha r table value of 0.877 > 0.378. Perception questionnaire was implemented using Google form help.

Data Analysis

The collected data was then analyzed using descriptive statistics with the following formula:

$$\text{Percentage} = \frac{\sum \text{score}}{n \times \text{highest value} \times r} \times 100\%$$

Note:

n = The sum of all questionnaire items

r = The total number of respondents (Sugiono, 2015).

After knowing the percentage of each question item, the results are then categorized into four perception categories, namely: 1) 21 - 40% (less categories), 2) 41-60% (adequate categories), 3) 61 - 80% (good categories) and 4) 81 - 100% (very good category).

Result and Discussion

The results of the research instrument were intended to find out five indicators of students' perceptions towards the development of teaching materials of Aceh's maritime potential. The five indicators are 1) ease of understanding, 2) conformity to learning, 3) conformity to material, 4) conformity to actual phenomena and 5) attractiveness of appearance. The instruments were collected for 1 month with the assistance of Google Form. The following are the research results on students' perceptions on the maritime teaching materials development.

Ease of Understanding

Indicators of ease of understanding aimed to find out the main goal of developing maritime teaching materials, namely to increase knowledge of Aceh's maritime potential. There were five items of statement of needs analysis for teaching materials on indicators of ease of understanding. The descriptions of the five statement items can be seen in the following Table 1.

Table 1.

Results of Needs Analysis of Ease of Understanding Indicators in the Development of Aceh Maritime Potential Teaching Materials

No	Statements	Responses							
		SS		S		TS		STS	
		N	%	N	%	N	%	N	%
1	I really need teaching materials during lectures	10	21.74	25	54.35	8	17.39	3	6.52
2	Teaching materials limit my creativity and decrease my enthusiasm for learning (R)	0	0.00	2	4.35	36	78.26	8	17.39
3	Teaching materials make learning more interesting	10	21.74	26	56.52	9	19.57	1	2.17
4	I have difficulty understanding lecture material through teaching materials (R)	1	2.17	2	4.35	27	58.70	16	34.78
5	I love learning to use textbooks	10	21.74	28	60.87	6	13.04	2	4.35

Based on Table 1, it is known that students really need teaching materials that support lectures. It can be seen that 54.35% of students agreed. This is in line with research Amadioha (2009), which states that teaching materials greatly affect the effectiveness of learning. Furthermore, students feel that using teaching materials in learning could make learning more interesting. This could be seen from 56.52% of students who stated agree and 21.74% of students expressed strongly agree. Learning to use teaching materials will make the classroom atmosphere more enjoyable. The same thing is also supported by research from Amah & Nugroho (2015), which states that using teaching materials will increase students' learning motivation and have an impact on increasing learning outcomes. Furthermore, in the statement "I like learning to use textbooks", 60.87% of students agreed and 21.74% of students stated strongly agree. Meanwhile, 13.04% of students said they did not agree and

4.35% of students stated strongly disagree. Students who enjoy learning to use textbooks were caused by the ease of accessing pages or turning pages and adding additional notes to the textbooks. This is consistent with research research Purwanto, Fatchan, Purwanto, and Soekamto (2016), which states that textbooks can facilitate students who have missed learning so that they can catch up. Meanwhile, students who did not like learning to use textbooks tend to like ebooks and interactive multimedia. This is caused by the electronic teaching materials in the form of files so it does not require a large storage area. Furthermore, research Ardiyanta, Sudjimat, & Partono(2012) justifies this statement by adding the advantages of electronic teaching materials that can be integrated with pictures and videos so that it is more interesting.

Conformity to Learning

The development of teaching materials in Aceh's maritime potential must support learning activities. This was caused by the development of teaching materials that should consider the ultimate goal of learning. The results of the analysis on the conformity indicators with learning can be seen in the following Table 2.

Table 2.

Results of Needs Analysis of Conformity to Learning Indicators in the Development of Aceh's Maritime Potential Teaching Materials

No	Statements	Responses							
		SS		S		TS		STS	
		N	%	N	%	N	%	N	%
1	Teaching material is very supportive for learning in class	13	28.26	31	67.39	2	4.35	0	0.00
2	Teaching materials must be in accordance with the final competencies expected from the lecture activities	18	39.13	24	52.17	1	2.17	3	6.52
3	My lecturer always uses teaching materials when giving lectures in class	2	4.35	10	21.74	30	65.22	4	8.70
4	Learning becomes monotonous when using teaching materials (R)	2	4.35	6	13.04	18	39.13	20	43.48
5	I feel enthusiastic about attending lectures if the facilities are complete	28	60.87	16	34.78	2	4.35	0	0.00

6	I am lazy to find supporting materials for lectures (R)	0	0.00	20	43.48	25	54.35	1	2.17
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Based on Table 2, it is known that as many as 67.39% of students agree if teaching materials really support learning in the classroom. Furthermore, as many as 52.17% of students stated that teaching materials must be in accordance with the final competence expected in lecturing activities. This is supported by research Purwanto, Fatchan, Purwanto, and Soekamto (2016) which states that teaching materials are used to support learning in class, explain material that is difficult to understand and support teachers in the learning activities. Furthermore, as many as 65.22% of students stated that lecturers in lectures did not always use teaching materials when giving lectures in class. This problem must be solved. Research Sari (2019) supports this finding by stating that there are still many teachers or lecturers who have not used teaching materials, especially on new material. This is due to the potential for maritime new material so that the source of teaching material is only taken from the internet. Furthermore, as many as 60.87% of students stated that they were very enthusiastic in attending lectures if the facilities were complete. This is supported by the statement Amah & Nugroho (2015), which states that learning activities really require complete facilities to increase learning motivation, which has implications for improving learning outcomes.

Conformity to Material

Indicators of conformity to the material consisted of five items of statements that can be seen in Table 3.

Table 3.

The Results of Needs Analysis of Conformity to Materials Indicators on the Development of Aceh's Maritime Potential Teaching Materials

No	Statements	Responses							
		SS		S		TS		STS	
		N	%	N	%	N	%	N	%
1	I feel teaching material is very important to explain the concept abstractly	30	65.22	11	23.91	4	8.70	1	2.17
2	The use of maritime teaching materials greatly helps students to understand the potential of the maritime area	37	80.43	8	17.39	1	2.17	0	0.00
3	I have difficulty in understanding lecture material with the methods used during lectures (R)	4	8.70	9	19.57	23	50.00	10	21.74

4	I like learning more than playing	13	28.26	22	47.83	8	17,39	3	6.52
5	The lecture materials are usually available by downloading it on the Internet (R)	27	58.70	11	23.91	0	0.00	8	17.39

Based on the results of the needs analysis in Table 3, it is known that as many as 65.22% of students answered strongly agreed that the existence of maritime potential teaching material is important to explain concepts that are difficult to understand. This is supported by findings Purwanto, Fatchan, Purwanto, and Soekamto (2016) that the definition of abstract concepts can be done by presenting tools that can represent the concept, one of which is the teaching materials. Furthermore, as many as 80.43% of students felt that teaching materials are needed to understand the regional maritime potential. This is in line with the results of the study Lestari (2018) that the use of teaching materials can improve understanding of concepts. Next, 58.70% of students strongly agree if the teaching material was obtained by downloading it online. Research Sari(2019) forms the basis of this finding by stating that many teaching staff download learning material on the Internet because of the difficulty in getting textbooks on the market, especially on new material.

Conformity to the Real Phenomenon

Conformity to the real phenomenon was intended that the use of teaching materials must be able to be contextual and in accordance with the needs of students. This indicator consisted of 5 statement items which can be seen in Table 4.

Table 4.

The Results of Needs Analysis of Conformity to Phenomenon Indicators on the Development of Aceh's Maritime Potential Teaching Materials

No	Statements	Responses							
		SS		S		TS		STS	
		N	%	N	%	N	%	N	%
1	Teaching material will be very interesting if it contains contextual events	18	39.13	16	34.78	2	4.35	10	21.74
2	Teaching material should contain illustrations that can describe phenomena in the environment	20	43.48	22	47.83	2	4.35	2	4.35
3	Aceh's maritime potential is suitable to be used as contextual teaching material	15	32.61	29	63.04	1	2.17	1	2.17

4	I like to update the latest information from various media	9	19.57	34	73.91	3	6.52	0	0.00
5	I don't like maritime topics because it's boring (R)	3	6.52	9	19.57	22	47.83	12	26.09

Based on Table 4, 39.13% stated strongly agree and 34.78% stated agree if the teaching material developed contained contextual events. This is supported by research Howard & Major (2004) that teaching materials compiled by teachers have contextual advantages because they adapt to students' needs. Furthermore, research Mahardiko (2016) mentions learning using a contextual approach can make it easier for students to understand concepts because students more easily associate concepts with real life. As many as 63.04% of students stated that Aceh's maritime potential was suitable to be used as contextual teaching material because Aceh is a westernized provision of Indonesia which has a large maritime potential. Research from Hasyim (2018) states that this potential can be seen from Aceh's strategic geographical position for the World trade route because it is a shipping lane for foreign ships.

Attractiveness of Display

The attractiveness of display is one of the important indicators to be considered in the development of teaching materials. The results of the analysis of the attractiveness of the display indicators can be seen in the following Table 5:

Table 5.
The Results of Needs Analysis for Attractiveness of Display Indicators on the Development of Aceh's Maritime Potential Teaching Materials

No	Statements	Responses							
		SS		S		TS		STS	
		N	%	N	%	N	%	N	%
1	I will easily read if the letters were not too small	35	76.09	10	21.74	1	2.17	0	0.00
2	I have a habit of reading by pointing at letters	0	0.00	0	0.00	40	86.96	6	13.04
3	I have a habit of reading out loud	2	4.35	12	26.09	26	56.52	6	13.04
4	I love colorful teaching materials	17	36.96	26	56.52	2	4.35	1	2.17
5	I love teaching materials that have a variety of fonts	20	43.48	19	41.30	5	10.87	2	4.35

6	I like the position of images, graphics and tables in the middle of the page	2	4.35	23	50.00	19	41.30	2	4.35
7	I like the appearance of clear images	38	82.61	8	17.39	0	0.00	0	0.00

Based on Table 5 it is known that as many as 76.09% of students answered strongly agree if the letter writing was not too small. The size of letters affect the readability of teaching materials. Research Tavakoli & Kheirzadeh (2011)] reinforces the finding which states that writing that is too small can affect reading speed. Furthermore, the results of the study also showed that as many as 82.61% of students liked the appearance of clear images. The teaching materials need to include pictures with the aim to help clarify the concepts described in the text and contain illustrations that can improve students' understanding. This is supported by research Kasmaenezhadfard (2015) that images on teaching materials really need to be displayed to enhance students' creativity. The results of other studies support the research findings of research from Sumarni et al. (2019) which states that teacher education school students agree to use "Child friendly ICT" textbook can improve their competence. This is due to the use of books that are friendly to readers will increase the demand to read making it easier for students to learn.

Conclusion

The study produced an instrument of students' perceptions on the development of Aceh's maritime potential teaching material to improve Aceh's maritime knowledge of student. This study concludes that the development of teaching materials in Aceh's maritime potential was needed to support lecture activities. This can be seen from students' positive responses to the five indicators of needs analysis, namely ease of understanding, conformity to learning, conformity to material, conformity to real phenomena and attractiveness of display. The need for the development of potential maritime teaching materials can occur because of the difficulty of students in getting material to study that can only be gotten by download it from the Internet. The expectation of students towards this development is that the teaching material developed is contextual and can increase knowledge of the potential maritime area. Development of teaching materials is important to support lecture activities. The existence of teaching materials in learning can increase learning motivation and learning outcomes.

Based on the results of research, expected to examine the analysis of the development needs of teaching materials from the teacher's perspective. Development of teaching materials requires further research such as curriculum analysis, observation of learning activities in maritime subjects. After conducting a

preliminary analysis, it is recommended to develop teaching materials and evaluate teaching materials from expert assessments and test the effectiveness of teaching materials to increase student knowledge.

Biodata of the Author



Ridhwan was born in Samalanga, Indonesia. He hold Ph.D in Geography Education from Universitas Negeri Malang in 2016. He also lecturer in the Geography Education Department, STKIP Al-Washliyah, Banda Aceh, Indonesia. His research focuses on geography education, environmental education, education technology and problem solving education. **Affiliation:** Geography Education Department, STKIP Al-Washliyah, Banda Aceh, Indonesia. **E-mail:** ridhwan.awan.10@gmail.com
Phone: (+62)81362702843



Sumarmi is a Professor, Researcher, and senior lecturer at the Geography Education Program, Faculty of Social Science, Universitas Negeri Malang, Jl. Semarang No. 5, Malang, Jawa Timur, Indonesia. **Affiliation:** Geography Education Department, Faculty of Social Science, Universitas Negeri Malang. **E-mail:** sumarmi.fis@um.ac.id.



I Nyoman Ruja is a senior lecturer at the Geography Education Program, Faculty of Social Science, Universitas Negeri Malang, Jl. Semarang No. 5, Malang, Jawa Timur, Indonesia. **Affiliation:** Social Science Education Department, Faculty of Social Science, Universitas Negeri Malang. **E-mail:** nyoman.ruja.fis@um.ac.id.



Dwiyono Hari Utomo is a senior lecturer at the Geography Education Program, Faculty of Social Science, Universitas Negeri Malang, Jl. Semarang No. 5, Malang, Jawa Timur, Indonesia. **Affiliation:** Geography Education Department, Faculty of Social Science, Universitas Negeri Malang. **E-mail:** dwiyono.hari.fis@um.ac.id.



Rima Meilita Sari is an lecturer on Geography Education Department, STKIP Al-Washliyah, Banda Aceh Indonesia. Her research focuses on geography education, environmental education, education technology and critical thinking skill. **Affiliation:** Geography Education Department, STKIP Al-Washliyah, Banda Aceh, Indonesia. **E-mail:**

rima.sari2121@gmail.com

References

- Ahmed, R. (2018). The Approaches of Teaching and Learning Maritime English: Some Factors to Consider. *BMJ*, 2(1). 105-120.
- Amadioha, S., W. (2009). The Importance of Instructional Materials in Our School an Overview. *New Era Research Journal of Human, Educational and Sustainable Development*, 2(3) 61-63.
- Amah, N. & Nugroho, A., D.(2015). Pengaruh Fasilitas Sekolah Terhadap Hasil Belajar Akuntansi dengan Lingkungan Sosial Sebagai Pemoderasi [The Effect of School Facilities on Accounting Learning Outcomes with the Social Environment as a Moderator]. *Jurnal Pendidikan Akuntansi (JPA)* 2(4).
- Anshar, M. (2019). *Banyak Ikan Dibuang ke Laut [Many Fish Thrown into the Sea]*. diunduh dari <https://aceh.tribunnews.com/2019/05/20/banyak-ikan-dibuang-ke-laut> diunduh tanggal 7 Agustus 2019
- Ardiyanta, A., S., Sudjimat, D., A., & Partono, P. (2012). Pemanfaatan Buku Sekolah Elektronik Sebagai Bahan Ajar Guru Program Produktif Sekolah Menengah Kejuruan *Teknologi dan Kejuruan* [Utilization of Electronic School Books as Teaching Materials for Teachers of Productive Programs for Vocational Technology and Vocational High Schools]. 35(2), 163-172.
- Dirgeyawa, I. W. (2018). The Need Analysis of Maritime English Learning Materials for Nautical Students of Maritime Academy in Indonesia Based on STCW2010 Curriculum. *English Language Teaching*, 11(9). 41-47.
- Darnita, I. K., Marhaeni, I. N., & Candiasa, I., M.(2014). Pengaruh Penggunaan bahan Ajar Online Terhadap Prestasi Belajar Tikom dengan Kovariabel Aktivitas Belajar Siswa Kelas VII SMP Dwijendra Gianyar [The Influence of the Use of Online Teaching Materials Against Tikom Learning Achievement with Covariables Learning Activities for Class VII Students of SMP Dwijendra Gianyar]. *Pendasi Jurnal Pendidikan Dasar Indonesia*, 4(1).
- Forbes, V., L.(2014). *Indonesia's Delimited Maritime Boundaries*. London: Springer.
- Fuad, M., A., Z., & Musa, M. (2017). Pengenalan Bidang Keamritiman Sejak Usia Dini Melalui Pembelajaran Tematik Kelautan Pada Siswa Taman kanak-kanak [Introduction to the Field of Judgment Since Early Childhood Through Marine Thematic Learning in Kindergarten Students]. *Jurnal Pendidikan Geografi:Kajian, teori, dan Praktek dalam Bidang Pendidikan dan Ilmu Geografi*, 22(2), 93-104.
- Hayati, I., W., Utaya, S., & Astina, I., K. (2016). Efektivitas Student Worksheet Berbasis Project Based Learning dalam Menumbuhkan Kemampuan Berpikir Kritis Siswa pada Mata Pelajaran Geografi [Effectiveness of Project Based Learning Worksheets in Developing Students' Critical Thinking Ability in Geography Subjects]. *Jurnal Pendidikan: Teori, Penelitian, dan Pengembangan*, 1(3). 468-474.
- Haryanto, N., A.,(2010). *Kesadaran Masyarakat dan Siswa Sekolah Dasar Terhadap Sejarah Maritim Kabupaten Rembang [Public Awareness and Elementary School Students Against the Maritime History of Rembang Regency]*. PhD Thesis Unnes.
- Hasyim, S. (2018). Aceh As Indonesia Maritime Diplomacy Across the Indian Ocean. *KnE*

- Soc Science*, 3(10), 601.
- Hazliansyah. (2014). Pengeboman Ikan di Aceh Selatan Kian Marak [Fish Bombing in South Aceh Kian Marak]. downloaded from <https://www.republika.co.id/berita/nasional/daerah/14/10/27/ne3xna-engeboman-ikan-di-aceh-selatan-kian-marak> tanggal 7 Agustus 2019.
- Howard, J., & Major, J. (2004). Guidelines for Designing Effective English Language Teaching Materials. *The tesolanz Journal*, 12(10), 50-58.
- Kasmaienezhadford, S. Purrajab, M., & Rabbani, M. (2015). Effect of Pictures in Textbooks on Students Creativity. *Multi Diciplinary Edu Global Quest (Quarterly)*, 4(2), 83-96.
- Klopfer, L., E, Fortner, R., & Wildman, T., M. (1980). Marine Education: Progress and Promise. *Science Education*, 64(5), 717 – 723.
- Kusumawati, I., & Huang, H., W. (2015). Key Factors For Successful Management Of Marine Protected Areas: A Comparison Of Stakeholders ' Perception Of Two Mpas In Weh Island, Sabang, Aceh, Indonesia. *Marine Policy*, 51, 465 – 475.
- Lestari, I. (2018). Pengembangan Bahan Ajar Matematika Dengan Memanfaatkan Geogebra untuk Meningkatkan Pemahaman Konsep Gauss [Development of Mathematics Teaching Materials by Utilizing Geogebra to Improve Understanding of the Gauss Concept]. *Jurnal Pendidikan Matematika*, 1(1), 26-36.
- Mahardiko, S. (2016). Pengaruh Pendekatan Kontekstual Terhadap Pemahaman Konsep Siswa pada Materi Bangun Ruang Sisi Datar [Effect of Contextual Approaches Against Understanding Student Concepts on Building Material Flat Side Space]. *Jurnal Pendidikan Matematika*, 5(2), 1-5.
- Purwanto, E, Fatchan, A, Purwanto, Soekamto, H. (2016). Development of Geography Text Books Used by Senior High School Teachers Case Study at East Java-Indonesia. *Journal of Education and Learning*, 5(1), 60-67.
- Sari, R., M., Sumarmi, Astina, I., K., & Utomo, D., H. (2019). Geography Teachers Perception on the Implementation of Mind Map on Scientific Approach. *Advances in Social Science, Education, and Humanities Research*, 320, 125 – 131.
- Sari, R. M., Sumarmi, Astina, I., K., Utomo, D., H., & Ridhwan. (2019). Measuring Students Scientific Learning Perception and Critical Thinking Skill Using Paper-Based Testing: School and Gender Differences. *International Journal of Emerging Technologies in Learning*, 14(19), 132-149.
- Sumarni, S., Ramadhani, R., Sazaki, Y., Astika, R, T., Andika, W. D., & Prasetyo, A.E. (2019). Development of "Child Friendly ICT" Textbooks to Improve Professional Competence of Teacher Candidates: A Case Study of Early Childhood Education Program Students. *Journal for the Education of Gifted Young Scientists*, 7(3), 643-658.
- Sugandi, D. (2011). Pengelolaan Sumber Daya Pantai [Management of Coastal Resources]. *Gea*, 11(1), 50-58.
- Sugianto & Endarto, D. (2017). *Mengkaji Ilmu Geografi [Studying Geography]*. Solo: PT. TIga Serangkai.
- Sugiono, (2015). *Metode Penelitian Pendidikan Pendekatan Kuantitatif, Kualitatif, dan RnD [Educational Research Methods Quantitative, Qualitative, and RnD Approaches]*. Bandung: Alfabeta.
- Sumarmi & Purwanto. (2017). Mangrove Forest Belt as Disaster Mitigation of Sea Level Rise in Coastal Zones. *Mediterranean Journal of Social Sciences*, 8(2), 219-226.
- Sumarmi, Amirudin, A. (2014). *Pengelolaan Lingkungan Berbasis Kearifan Lokal [Environmental Management based of Lokal Wisdom]*. Melang: Aditya Publishing.
- Sumarmi, (2015). Local Wisdom of Osing People in Conserving Water Resources. *Jurnal Komunitas*, 7(1), 43-51.
- Sumarmi, Bachri, S., & Tanjung, A. (2019). Madurase Fishermen's Adaptation to Marine

- Environment-Based Approach in Fisheries Resources Management By Empowering TheLocal Wisdom of Onjem. *Advance in Social Science, Education and Humanities Research*, 320, 107-114.
- Tavakoli, E.& Kheirzadeh, S. (2011). The Effect of Font Size on Reading Comprehension Skills: Scanning for Key Word and Reading for General Idea. *Theory and Practice in Language Studies*, 1(7), 915-919.
- Tika, P., Amin, & Rahay, E., P. (2017). *Jelajah Dunia Geografi untuk SMA/MA Kelas XI [Explore the World of Geography for Class XI Senior High School]*. Jakarta: PT. Bumi Aksara.