Migration Letters

Volume: 20, No: S7(2023), pp. 869-887

ISSN: 1741-8984 (Print) ISSN: 1741-8992 (Online)
www.migrationletters.com

Curriculum Diversification: Competency Analysis of Island Potential

Kasman[1], Rudi Susilana[2], Dadang Sukirman[3]

Abstract

Decentralization of education becomes a consesus of improving the quality of human resources such as the implementation of a diversified curriculum based on the situation of potential residence. Today, this concept is a tranding topic in the education system of maritime countries such as Indonesia. The objectives of this study include (1) Analysis of student competency needs based on the potential of island areas in South Sulawesi; (2) Analysis of competencies that need to be developed in a diversified curriculum based on the potential of island areas in South Sulawesi. The research method used is in the form of descriptive statistics with a quantitative approach. Data collection techniques in the form of questionnaire distribution, open interviews, FGDs with experts and practitioners. The results obtained: (1) The tendency of the competence needs of students based on the potential of the archipelago area is natural resources; (2) Trends need to be developed several competencies such as the ability to handle fishery products, processing raw materials, diversifying fishery products, ensuring the quality and safety of fishery products and adding value to processed seaweed products. The implication of this research is the development of a diversified curriculum on the results of investigations obtained as further concrete impacts for educators and students in the archipelago area, South Sulawesi.

Keywords: *Competency Analysis; Diversification Curriculum; Potential of the Islands Area.*

INTRODUCTION

The popularity of education regarding decentralization policies in developing countries is attracting increasing attention (Channa, 2016). The most fundamental and important decisions in determining the model of education financing that is responsible for the budget. In other countries, whether education finance will later be controlled by the central government or local governments becomes a big question, and this brings us to the question of decentralization theory (Kang, 2020). Generally, the concept of decentralization is defined as the delegation of local authorities to deal with the problems and situations of their regions (Şahin, 2018). A similar concept was also put forward by Litvack & Seddon (1999), if decentralization is the transfer of public functional authority and responsibility from the central government to local governments. This familiar concept of decentralization is known as the handover of government from the central

[1] Doctoral Student of Departement Curriculum Development, Universitas Pendidikan Indonesia. E-mail: kasman.student@upi.edu, Orcid: https://orcid.org/0009-0004-8643-6397.

[2] Professor in Departement Curriculum Development, Universitas Pendidikan Indonesia. E-Mail: rudi_susilana@upi.edu. Orcid: https://orcid.org/0000-0001-9082-9960

[3] Lecturer in Departement Curriculum Development, Universitas Pendidikan Indonesia. E-Mail: dadangsukirman@upi.edu. Orcid: https://orcid.org/0000-0002-2964-0891.

government to local governments, including giving broader authority to local governments to manage education (Winardi, 2017).

On a historical track record, decentralization is a global trend in education governance. Since the mid-1980s, most OECD countries have proposed educational reforms promoting decentralization and school autonomy policies in order to improve the quality of education and administrative efficiency (Ahmad et al. 2008; Manna & McGuinn 2013). Decentralization of education has been implemented in many countries in addition to its complexity in conceptualizing terminological education (Rodden et al. 2003; Mwinjuma et al. 2015). Channa (2016) released several developing countries carrying out decentralization reforms in the world of education in such as Argentina, Brazil, El Salvador, Guatemala, Honduras, Hong Kong, Israel, Mexico, Nicaragua, Thailand (To Pre 2000), while Benin, Gambia, Indonesia, Kenya, Madagascar, Mexico, Niger, Qatar and Sinegal (To Post 2000).

Seameo Innotech (2012) mentioned that decentralization of education can create a more effective and efficient education system, bring about the realization of quality education, increase the efficiency and effectiveness of operational and administrative management to cut the chain of bureaucratic and wasteful administrative centralization, increase efficiency and financial responsibility and create greater control over the region. Supporting this concept, Winardi (2017) clearly stated that this concept can lead to the advancement of education in a country. However, problematically a number of scholars have converted to the belief that centralization is the main cause of a relationship between decentralization and quality education (Soner, 2016; Arslan and Atasayar, 2008; Balci, 2000; Tasar, 2009; Yalcinkaya, 2004).

One of the interdisciplinary approaches that integrated the curriculum is that the place-based curriculum is a curriculum that is anchored to the current location and the resources that the place has that can provide challenging, exploratory, relevant and integrative learning experiences for learners and teachers (NMSA, 2010; Wall & Norman, 2021). In concept, this place-based curriculum has four things needed such as personal experience, content acquisition, understanding of place and the role of learners in service in their community (Demarest, 2020). Place-based curricula offer contexts in which learners engage with relevant topics and issues in which they live (Santelmann et al. 2011; Sgouros & Stir, 2016).

The literature highlights similarities in meaning with diversified curricula, Gate Standards (2005) in Dobron (2011) states that differentiated curricula are intended to meet the needs, interests, and abilities of gifted students. Curriculum conservification in general has characteristics in the form of program design, program implementation and assessment that accommodate various differences, readiness, academic potential, student interests, locality, environment and culture around them (Susilana, 2013). Akib et al. (2013) continue with the concept of an integrated curriculum that has similar meanings, if this curriculum has characteristics including holistic (whole), authentic, active, simplicity and natural. Some studies are relevant to previous research on integrated curricula (Mc Bee, 2016; Costley, 2015; Prihantoro, 2015; Draghicescu et al., 2013).

Indonesia is famous for a home to more than 300 ethnic groups who inhabit only 6,000 of 17,000 islands and have their own unique cultures and customs. "The estimated 103.5 million Javanese are the largest ethnic group in Indonesia," inhabiting the eastern and central parts of Java (Minahan, 2012). The potential for abundant resources if managed and developed into a diversified school curriculum will be able to improve the quality of education in the regions (Sutjipto, 2015). Some of the preliminary observations that have been made with 55 educator respodents located in the South Sulawesi islands mention some of their perspectives on curriculum diversification in the field, specifically illustrated in Figure 1.

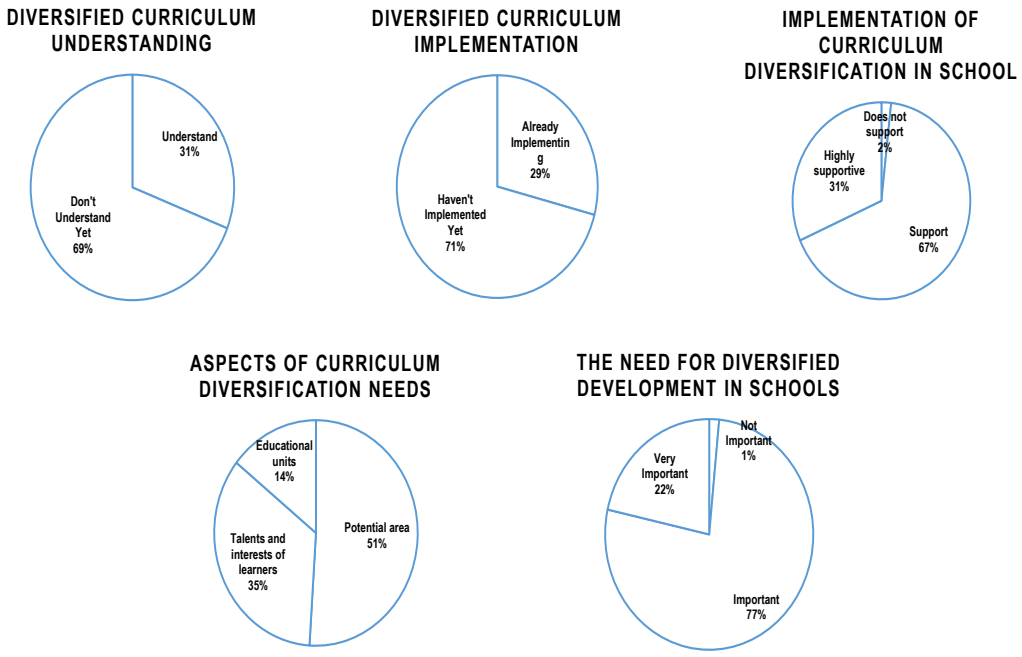

Figure 1. Educators' Perspectives on Diversified Curricula

Based on this investigation data, several facts were found from five aspects of measurement, namely aspects of understanding the diversification curriculum, implementation of the diversified curriculum, the need for a diversified curriculum, the importance of developing a diversified curriculum in schools and teacher perceptions in supporting the implementation of the diversified curriculum. In the first fact, it was found that the understanding of the diversified curriculum among educators is still in the limited dominant category (69.09%) and others understand. The second fact is that educators who have implemented a diversified curriculum only (29.09%) and others have not implemented it. The third fact is that the need for a diversified curriculum has more inclinations in the potential aspects of their area (45.45%). In fact, educators' perspective on the urgency of a diversified curriculum in schools has a tendency in important categories (90.91%). In fact, educators' perspectives in supporting the inclusion of diversified curricula in their schools have a tendency (69.09%). This is the background of investigating the need for diversified curriculum development in one of the regions in Indonesia.

On the other hand, some of the previous relevant studies that have been highlighted can be said to be limited in discussing this study, such as the contribution of the self-efficacy of curriculum development team and curriculum document quality to the implementation of diversified curriculum in Indonesia (Susilanas et al. 2018); National curriculum vs. curricular contextualisation: teachers' perspectives (Leite et al. 2020); local content curriculum implementation in the framework of nationalism and national security (Sagita et al. 2019); politics of curriculum in the educational system in Indonesia (Wahyudin & Suwirta, 2020). Based on several studies of the article, the state of the art of this study focuses more on investigative studies with the aim of: (1) Analysis of student competency needs based on the potential of island areas in South Sulawesi; (2) Analysis of competencies that need to be developed in a diversified curriculum based on the potential of island areas in South Sulawesi.

METHODOLOGY

Research Design

The design of this study uses a survey research method with a quantitative approach that aims to obtain data on (1) Analysis of student competency needs based on the potential of island areas in South Sulawesi; (2) Analysis of competencies that need to be developed in a diversified curriculum based on the potential of island areas in South Sulawesi. Given, Ramasamy & Pilz in Ali & Susilana (2021) mentioned that for these competencies curriculum designers can use the results of assessment and needs analysis based on field research.

Research Samples

The samples in the study were educators and students in the South Sulawesi archipelago. Specifically, the demographics of respondents have been presented in Table 1.

Table 1. Demographic Characteristics of Respondents

Subject	Category	Indicators	Frequency	Percentage
Students	Gender	Male	75	39,06
		Female	117	60,94
	Grade	Grade 10	78	40,63
		Grade 11	53	27,60
		Grade 12	61	31,77
		Total	192	100,00
Teacher	Gender	Laki-laki	18	32,73
		Perempuan	37	67,27
	Education	Senior High School	3	5,45
		Bachelor Degree	49	89,09
		Master Degree	4	7,27
		Doctor Degree	0	0,00
	Teaching Duration	> 5 years	40	72,73
		< 5 years	17	30,91
		Total	55	100,00

Source: Emphirical Data (2022)

Research Location

This investigation was carried out in an archipelago area in South Sulawesi, Indonesia. Some of the schools identified include SMA 6 Selayar (L1); SMA 4 Selayar (L2); SMA 7 Selayar (L3); SMA 10 Takalar (L4); SMA 7 Pangkep (L5); SMA 12 Pangkep (L6); SMA Barang Lompo Makassar (L7); Citra Bangsa Makassar High School (L8); SMA 6 Pangkep (L9). The following map of the study location has been presented in Figure 2.

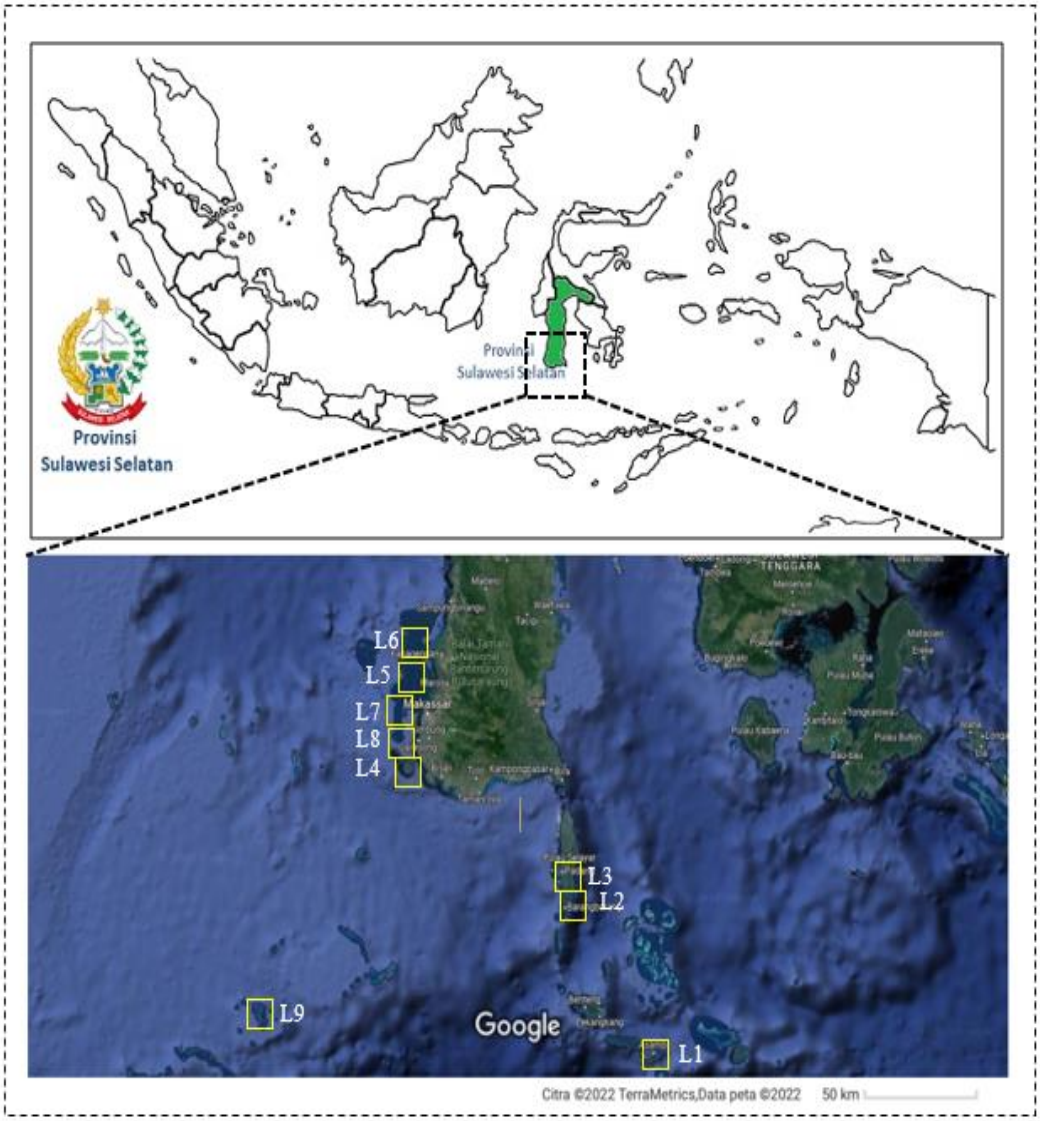

Figure 2. Research sites

Source: Google Earth & Field Observations (2022)

Research Instruments

This study used instruments in the form of questionnaires and Focus Group Discussions (FGD). In the initial investigation stage, research instruments with targets are used on educators (Table 2) and learners (Table 3). While the advanced stage, the development is carried out in advance with fisheries experts and industry practitioners to create a competency formulation development that is agreed or valid in the FGD presented in Table 2.

Table 2. Educator Instrument Needs Analysis

Question	Aspect Investigation	Indicators
Q1	Gender	Male
		Female
Q2	Education	High school
		Bachelor
		Magister

		Doctor
Q3	Teaching Duration	> 5 year
		< 5 year
Q4	Diversified Curriculum Understanding	Understand
		Don't Understand
Q5	Diversified Curriculum Implementation	Already
		Not yet
Q6	The Need for Diversification	Potential area
		Talents and interests of learners
		Educational units
Q7	The importance of developing a diversified curriculum in schools	Not Important
		Important
		Very Important
Q8	Teacher perceptions in supporting the implementation of a diversified curriculum	Does not support
		Support
		Highly supportive

Followed by the analysis instrument of student needs to identify and analyze needs in general has been presented in Table 3.

Table 3. Analysis of Learner Instrument Needs

Question	Aspect Investigation	Indicators
Q1	Gender	Male
		Female
Q2	Grade	Grade 10
		Grade 11
		Grade 12
Q3	Perceptions of Learners in Supporting the Program	Does not support
		Support
		Highly supportive
Q4	The Need for Regional Potential to Be Developed through a Diversified Curriculum	Natural resources
		Human resources
		Geographic
		Historical
Q5	Urgency of Curriculum based on Regional Potential	Not Important
		Important
		Very Important

Preliminary empirical results obtained data on the needs of educators and students, then to find out the specifics of the development of competency formulations carried out in further investigations. This development is based on several relevant references and considerations made with fisheries experts and industry practitioners through FGD activities (Figure 3).

Figure 3. Focus Group Discussion on Competency Formulation Development

This FGD activity aims to formulate competencies that need to be developed in a diversified curriculum based on the potential of island areas in South Sulawesi through the provision of instruments that use relevant references such as (Direktorat Pembinaan Sekolah Menengah Kejuruan, 2013; Yunus et al. 2018; Naiu et al. 2018; Ujianti & Muflihati, 2020; Prihanto, 2021; Husni, A., & Putra, M. M. P, 2018 dan Husni, A., & Budhiyanti, S. A. 2021). The results of these considerations are presented in Table 4.

Table 4. Development of Advanced Investigation Instruments

Competency	Q	Indicators	Category	Desc
Handling of fishery products	Q1	Understand the principles and objectives of post-catch fish handling	(C2)	Accepted
	Q2	Explain post-catch fish handling procedures	(C2)	Accepted
	Q3	Distinguishing the stages of breeding fresh fish and frozen fish	(P3)	Accepted
	Q4	Practicing post-catch fish handling procedures	(P3)	Accepted
	Q5	Comply with post-catch fish handling procedures	(A2)	Accepted
	Q6	Pay attention to the principles in handling fish	(A2)	Accepted
Processing of product raw materials	Q7	Understand the concept of processing fishery products	(C2)	Accepted
	Q8	Explaining the requirements of fish as the main raw material for product processing	(C2)	Accepted
	Q9	Explains the nutritional content of	(P1)	Accepted

		various types of fish and the factors that affect them		
	Q10	Explain the traditional and modern processing of fishery products	(C2)	Accepted
	Q11	Practicing traditional fish processing methods	(P1)	Accepted
	Q12	Receiving input in the fish processing process	(A4)	Accepted
	Q13	Understand the concept of processing fishery products	(A4)	Accepted
Diversifying fishery products	Q14	Understand the concept of diversification of fishery products	(C1)	Accepted
	Q15	Explain fishery by-products that can be utilized	(P3)	Accepted
	Q16	Knowing the different types of forms of diversification of fish-based products	(P3)	Accepted
	Q17	Producing products from fishery by-products	(P3)	Accepted
	Q18	Diversifying processed fish-based products	(A3)	Accepted
	Q19	Receive feedback during the manufacture of processed fish products	(A1)	Accepted
Ensuring the quality and safety of fishery products	Q20	Explaining the concept of quality control of fishery products	*(C3)*	Accepted
	Q21	Explain the procedures for quality control of fishery products	(C1)	Accepted
	Q22	Recognizing permitted and prohibited food additives (BTP) in controlling the quality of fishery products	(C1)	Accepted
	Q23	Monitoring Good Manufacturing Practice (GMP) based on Standard Operating Procedures (SOPs)	(P1)	Accepted
	Q24	Be objective in providing information to ensure the quality of fishery products	(C4)	Accepted
	Q25	Explaining the concept of quality control of fishery products	(A4)	Accepted
	Q26	Explain the procedures for quality control of fishery products	(A4)	Accepted
Adding value	Q27	Explaining the added value of	(C1)	Accepted

to processed seaweed products		processed food and non-food products from seaweed		
	Q28	Describes the different forms of diversification of seaweed products	(P1)	Accepted
	Q29	Explaining the potential of seaweed from industrial and health aspects	(C4)	Accepted
	Q30	Practicing product diversification from seaweed	(P3)	Accepted
	Q31	Actively participate in maintaining the sustainability of seaweed ecosystems	(C6)	Accepted
	Q32	Paying attention to environmental sustainability in the manufacture of seaweed products	(A3)	Accepted
	Q33	Explaining the added value of processed food and non-food products from seaweed	(A3)	Accepted

Description: C (Cognitive Level); P (psychomotor level); A (Affective Level)

Data Analysis Techniques

This study uses descriptive statistical data analysis techniques to analyze the results of initial investigations and follow-up investigations. Specifics are presented in Table 5.

Table 5. Research Data Analysis Techniques

Research Objectives	Data Collection Techniques	Data Sources	Instruments	Data Analysis Techniques
Analysis of student competency needs based on the potential of island areas	Observation	Student's	*Questionnaires (open-ended)*	Quantitative Statistics in the form of Percentages
Analysis of competencies that need to be developed in a diversified curriculum based on regional potential	*Focus group interview*	Fisheries Experts and Industry Practitioners	*Protocols interview*	Qualitative Descriptive
	Observation	Teacher's	*Questionnaires*	Quantitative Statistics in the form of Percentages

RESULT AND DISCUSSION

1. Analysis of Student Competency Needs Based on the Potential of the Islands Area

This initial inverstigation aims to analyze competency needs based on the potential of the archipelago and surrounding areas, especially in South Sulawesi. Given that, place-based education is essential in connecting schools and communities in society and fostering democratic values, interdependence, criticality and attitudes (Gruenewald & Smith, 2008). Some questionnaire distribution was done to educators and learners for some repentative schools. Initial investigations are not only conducted with educators but learners. The results of the field investigation have been presented in Figure 4.

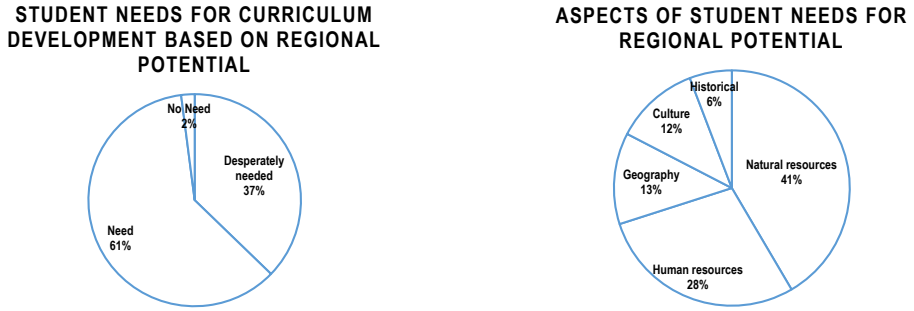

Figure 4. Analysis of Student Needs for Potential Islands

Based on field investigations with learners identifying their needs to obtain some facts, learners who need a diversified curriculum based on their regional potential have a tendency towards natural resource aspects (41.55%); while other potentials are human resources (28.50%); geography (12.56%); culture (11.59%); and history (5.80%). These empirical results support the opinion of Gruenewald (2003b) mentioning an education of concern for awareness of the potential of housing and knowing the diverse strengths so that meeting the needs they need is an actual education. But in reality, the decentralization policy, especially in the field of education, has not been fully implemented as expected (Kultsum et al. 2022). Including the development of curriculum diversification based on regional potential.

In particular, we explore the literature on intermediate-level curricula and collaboration as part of the professional role of educators in the context of place-based learning (Wall & Norman, 2021). Place-based education (PBE) is constructed to make educators and students make changes, one of which is regarding environmental issues (Sunassee et al., 2021). Place-based education is not a new concept, but the idea of combining two bodies of work to explore what may look like such attentive place-based education may provide a useful new perspective (Deringer, 2017). Place-based teaching and learning is a regenerative approach with the potential to maintain a passion for teaching as well as a deep interest and commitment to a place (Goodlad & Leonard, 2018).

Smith (2002) identified five thematic patterns of PBE that can be adapted to different settings: (a) cultural studies, (b) natural studies, (c) real-world problem solving, (d) internships and entrepreneurial opportunities, and (e) induction into community processes. Coughlin & Kirch (2010) uses activity theory to conceptualize place-based learning as a "collaborative activity that makes cultural, historical, political, economic, environmental, social, and physical aspects stand out what and how we teach". The following Mindful Place-based Eduction (PBE) is illustrated in Figure 5.

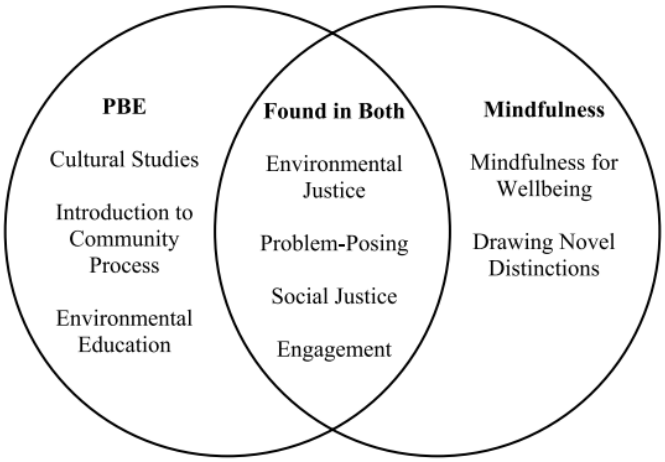

Figure 5. Mindful Place-based Education.

Note. PBE = Place-Based Education (Deringer, 2017)

Place-based learning can offer contexts in which students engage with topics and issues relevant to their community (Santelmann, 2011; Sgouros & Stir, 2016). The application of neuroscience methods in the context of PBE to study the formation of a sense of place, and other cognitive and affective processes, can inform innovations in curriculum and place-based teaching, as has been proposed for other teaching and learning modalities (e.g., Immordino-Yang and Damasio, 2007). Sense of place is an authentic philosophical and theoretical where learning outcomes can be assessed through place-based education (PBE) which is contextual in nature (Semken et al. 2017). Sense of place is a theoretically and practically effective learning outcome that depends on the place with specific methods (Semken & Butler Freeman, 2008; Ward et al., 2014).

On the other hand, several studies state that PBE is an innovative way to solve environmental problems (Graham, 2007). Encourage learners to think critically about where they live and emphasize the local diversity of a place (Gruenewald & Smith, 2014). Deepening learners' relationship with where they live and enhancing the learning experience outside the classroom (Leather & Nicholls, 2016). Learners are challenged to investigate local problems and how they engage to solve problems in community life (Deringer, 2017). Some of these benefits, none other than having the important goal of creating a situation for future teachers for reconciled teaching and learning (Aitken & Radford, 2018).

According to one educator regarding the place-based curriculum, I have identified four elements of place-based education. These elements present a rich mix for educators to create curricula: personal experiences, content acquisition, understanding of places, and student roles that emerge in, or serve in, their communities (Demarest, 2020). An integrated curriculum or it can also be said to be an idea of "place-based" education is a powerful, generative, yet inherently problematic educational notion that demands critical interrogation, particularly in the current global climate of deep-minded nationalist and place-based politics (Corbett, 2020). An integrated curriculum is an educational approach that prepares students for lifelong learning. In this integrated learning, students are expected to have the ability to identify, collect, assess, and use the information around them meaningfully (Akib et al. 2020).

2. Analysis of Competencies that Need to be Developed in a Diversified Curriculum Based on the Potential of Island Regions

This follow-up investigative activity aims to analyze the competencies that need to be developed in a diversified curriculum based on the potential of the archipelago area. The idea of place-based learning connects experiential learning theory, contextual learning, problem-based learning, constructivism, outdoor education, indigenous education, and

environmental education (Perera et al. 2018). Place-based learning emphasizes also on student learning outcomes. Cognitively, they are expected to have specific knowledge and skills in communicating to make decisions regarding the environment (one of the many objectives of PBE). Affective aspects, they can control attitudes, emotions, identities and values. Behavioral aspects, they can have skills and actions that can be taken wisely (Stedman, 2002; Semken et al. 2017). In the results of this follow-up investigation, specific competencies were identified from the cognitive, psychomotor and affective aspects illustrated in Figure 6.

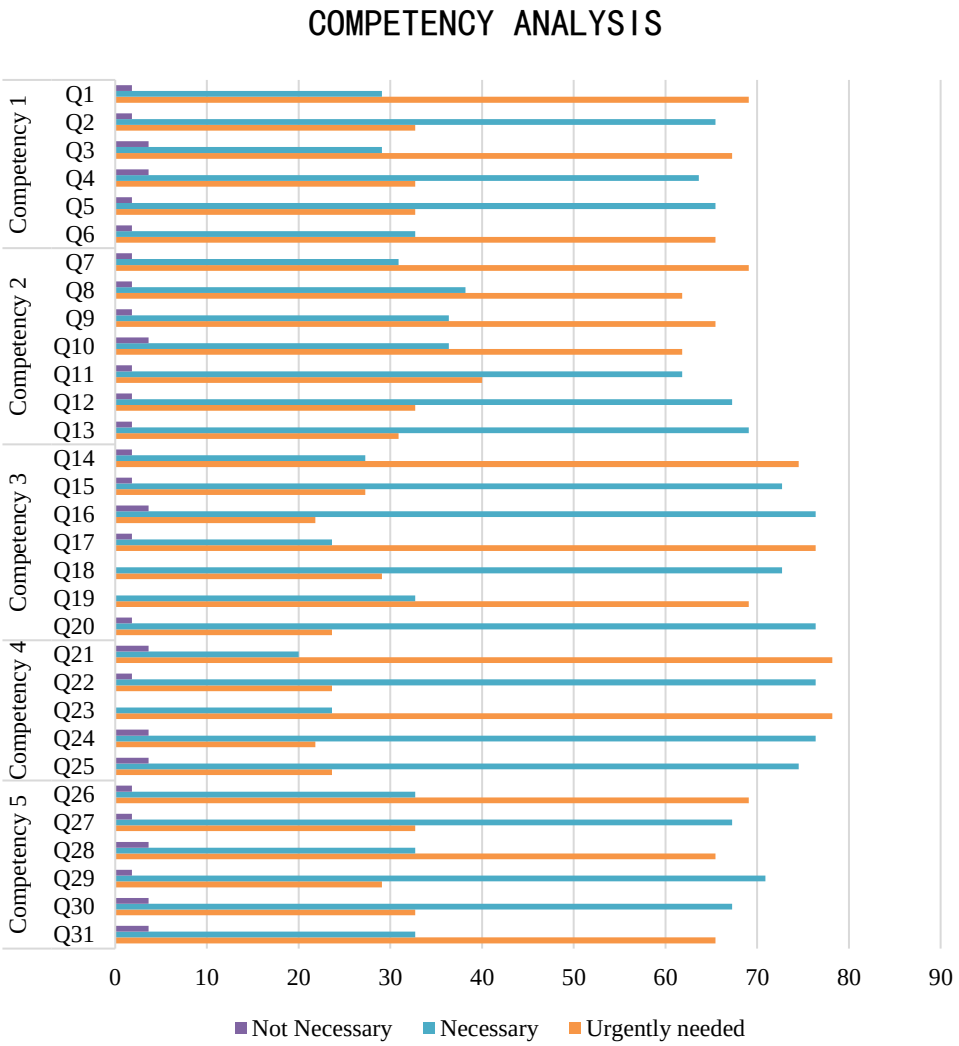

Figure 6. Competency Analysis that Needs to be Developed in a Diversified Curriculum Based on the Potential of the Archipelago Region

The observation results are based on five main competencies that need to be developed in a diversified curriculum based on the potential of the archipelago area. The following emphasises of each competency include (1) Competence in handling fishery products emphasizes more on indicators explaining post-catch fish handling procedures, explaining post-catch fish handling procedures and Complying with post-catch fish handling procedures; (2) The competence of processing product raw materials emphasizes more on indicators explaining traditional and modern processing methods of fishery products and practicing traditional fish processing methods; (3) Competence to diversify fishery products emphasizes more on indicators of how they explain fishery by-products that can be utilized, knowing various types of fish-based product diversification Making diversification of processed fish-based products and actively participating in producing

products from fishery by-products; (4) Competence to ensure the quality and safety of fishery products emphasizes more on indicators of how they explain the quality control procedures of fishery products, monitor Good Manufacturing Practice (GMP) based on Standard Operating Procedures (SOPs) and be objective in providing information to ensure the quality of fishery products; and (5) Competence to add value to processed seaweed products emphasizes more on how they explain the various forms of diversification of seaweed products, practice product diversification from seaweed and actively participate in maintaining the sustainability of the seaweed ecosystem.

This observation has a tendency to develop students' skills in managing natural resources or the potential of marine areas they have. Hunt (2021) in his research stated that the majority (65%) of students enjoy studying outdoors, interactivity, active learning and peer-to-peer learning are often commented positively. Students enjoy learning about their place and the interconnectedness of sea and land and local sea-related jobs. In Taiwan, the topic of marine education is integrated with each subject, it allows learners to learn the five components of marine education such as marine recreation, marine society, marine culture and marine science as well as technology, sustainable marine resources) thus forming awareness, love and closeness to the ocean. The Taiwanese government is resolute to ensure every citizen has the marine literacy to achieve sustainable development as a maritime country (Lin et al. 2020). The Sustainable Development Goals 14 component has 10 targets that cover a broad range of marine themes ranging from sustainable fisheries and extraction, pollution prevention, protection and conservation to legal frameworks and working with communities to improve marine literacy (Hunt, 2021). This crucial urgency of marine literacy is illustrated in Figure 7.

Figure 7. Crucial Concept of Ocean Literacy in SDG's

Source: Santoro et al. (2022)

Sustainable development goal 14 focuses on life underwater. In general, marine literacy and SDG14 awareness are low in this coastal classroom setting and in each class given students learn something new (Hunt, 2021). It is also closely related to the goal of achieving SDGs 4 which focuses on the quality of education, in this component is promoted in the book entitled "A New Blue Curiculum - A toolkit for policy-makers", the achievement of the SDGs 4 component to promote the blue curriculum for all levels of

education, providing students with provisions to understand the challenges in managing the ocean to act collectively towards change (Santoro et al. 2022).

The American Association for the Advancement of Science (2004) states that the demands of marine literacy for residents living near coastal areas should be prioritized. Ostertag et al. (2021) mention the role of marine literacy in coastal communities as an approach that encourages relevant community-based learning. Collaboration and the importance of ocean optimism in guiding this urgently requires efforts to benefit community-based, ocean-focused, solution-oriented future initiatives.

Kelly et al. (2022) said that the implementation of policies to support the inclusion of this marine literacy curriculum through formal education with a process to recognize the potential, support and increase cultural connections to the sea and increase access with the integration of technology to develop and support the marine literacy movement in achieving sustainable behavior and making changes that have a positive impact. In line with Stafford & Jones (2019) also mentioned the same thing, if education, cultural connections, technological developments and knowledge exchange and interconnection of science and policy are key in improving marine literacy. He also added that the correlation of political policies will have a major impact on improving marine literacy.

Gruenewald (2003b) mentions an educational concern about the awareness of the potential of housing to know the diverse strengths so as to meet the needs they need as an actual education. The implementation of the curriculum is also designed by paying attention to regional development and building a 'sense of belonging' and 'sense of solidarity' towards the Indonesian nation-state (Wulandari et al. 2022). Given, the idea in general of the description (miniature) of an educational process, is based on having good quality learning outcomes that cannot be obtained in the absence of a curriculum (Yang et al. 2019). Curriculum experts are appointed by the government to develop a curriculum that can be applied with teachers in all schools in some countries as an implementation of standard practice in the field of education (Carl, 2005; Hoang et al., 2020; Parveen & Bone, 2017; Rawling, 2020; Rossi & Kirk, 2020). Highlighting this, the investigation was carried out as a first step before follow-up research was carried out in the form of developing a diversified curriculum based on the potential of archipelagic areas in Indonesia.

CONCLUSION

The development of a diversified curriculum in Indonesia is needed considering the geographical conditions as an archipelagic country that has a variety of regional potentials. Based on the results of an investigation in one of the island areas that has been carried out, it is concluded that educators support a diversified curriculum program to optimize the management of natural resources where they live. Not only that, based on the perspective, students also have a tendency to implement curriculum diversification based on regional potential, especially in the management of their natural resources. It is hoped that the curriculum can develop the potential of their area.

Emphatically, this paper highlights an investigative study conducted on learners and educators in one of the Indonesian archipelago regions. This is done as a first step to conduct a study of the development of a diversified curriculum design based on the potential of the archipelago area. It is hoped that this paper will become relevant reference material for subsequent reviewers in conducting research and development studies in different locations in Indonesia as a concrete form of centralized education to improve the quality of human resources in managing and being sensitive to the complexity of the problems around them, so as to realize meaningful learning.

Acknowledgements

The author expresses his gratitude to Universitas Muhammadiyah Makassar for its support in the publication of this article. Also to the editor who provided constructive suggestions and helped improve the quality of this article.

References

Ahmad, E., Brosio, G., & Tanzi, V. (2008). Local service provision in selected OECD countries: Do decentralized operations work better? IMP Working Paper (WP/08/67). Washington, DC: International Monetary Fund.

Aitken, A. & Radford, L. (2018). Learning to teach for reconciliation in Canada: Potential, resistance and stumbling forward. Teaching and Teacher Education, 75, 40-48. https://doi.org/10.1016/j.tate.2018.05.014

Akib, E., Imran, M. E., Mahtari, S., Mahmud, M. R., Prawiyogy, A. G., Supriatna, I., & Ikhsan, M. H. (2020). Study on implementation of integrated curriculum in Indonesia. IJORER: International Journal of Recent Educational Research, 1(1), 39-57. https://doi.org/10.46245/ijorer.v1i1.24

Ali, M., & Susilana, R. (2021). Perancangan Kurikulum Mikro: Profesionalisme Guru untuk Pendidikan Berkualitas. Depok: PT. Rajagrafindo Persada

American Association for the Advancement of Science. (2004). AAAS Survey Report; AAAS: Washington, DC, USA

Arslan MM, Atasayar HH (2008). Ideas of the provincial managers of the ministry of national education about localization. Ankara Uni. J. Faculty Educ. Sci. 41(2):59-79. https://doi.org/10.1501/Egifak_0000001126

Balcı, P. D. A. (2000). İkibinli Yıllarda Türk Milli Eğitim Sisteminin Örgütlenmesi ve Yönetimi . Kuram ve Uygulamada Eğitim Yönetimi , 24 (24) , 495-508 . Retrieved from https://dergipark.org.tr/en/pub/kuey/issue/10372/126938

Carl, A. (2005). The “voice of the teacher” in curriculum development: A voice crying in the wilderness. South African Journal of Education, 25(4), 223-228.

Channa, A. (2016). Popularity of the decentralization reform and its effects on the quality of education. Prospects, 46(1), 131–147. doi:10.1007/s11125-016-9380-7

Corbett, M. (2020). Place-Based Education: A Critical Appraisal from a Rural Perspective. In: Corbett, M., Gereluk, D. (eds) Rural Teacher Education. Springer, Singapore. https://doi.org/10.1007/978-981-15-2560-5_14

Costley, K.C. (2015). Research supporting integrated curriculum : Evidence for using this method of instruction in public school classrooms. Running Head : Integrated Curriculum, 1–11.

Coughlin, C. A., & Kirch, S. (2010). Place-based education: A transformative activist stance. Cultural Studies of Science Education, 5(4), 911-921. https://doi.org/10.1007/s11422-010-9290-6

Demarest, A. B. (2020). Learning Locally, Understanding Globally. Middle Grades Review, 6(3). https://scholarworks.uvm.edu/mgreview/vol6/iss3/3

Deringer, S. A. (2017). Mindful place-based education: Mapping the literature. Journal of Experiential Education, 40(4), 333-348. https://doi.org/10.1177/1053825917716694

Direktorat Pembinaan Sekolah Menengah Kejuruan. (2013). Pengolahan Hasil Samping Produk Perikanan dan Rumput Laut. Direktorat Pembinaan Sekolah Menengah Kejuruan. hal, 126-130.

Dobron, K. H. (2011). Gifted students' perceptions of the differentiated curriculum. University of Southern California.

Draghicescu, L.M., Gorghiu, G., & Gorghiu, A.M.P.L.M. (2013). Pleading for an integrated curriculum. Journal of Science and Art, 1(22).89-95.

Goodlad, K., & Leonard, A. E. (2018). Place-based learning across the disciplines: A living laboratory approach to pedagogy.

Graham, M.A. Art, ecology and art education: Locating art education in a critical placebased pedagogy. Stud. Art Educ. 2007, 48, 375–391. https://doi.org/10.1080/00393541.2007.11650115

Gruenewald, D. A. (2003a). The best of both worlds: A critical pedagogy of place. Educational Researcher, 32(4), 3–12.

Gruenewald, D. A. (2003b). Foundations of place: A multidisciplinary framework for placeconscious education. American Educational Research Journal, 40(3), 619–654.

Gruenewald, D. A., & Smith, G. A. (2008). Introduction: Making room for the local. In D. A. Gruenewald & G. A. Smith (Eds.), Place-based education in the global age (pp. xiii– xxiii). New York, NY: Lawrence Erlbaum.

Gruenewald, D. A., & Smith, G. A. (Eds.). (2014). Place-based education in the global age: Local diversity. New York, NY: Psychology Press.

Hoang, A. D., Pham, H. H., Nguyen, Y. C., Vuong, Q. H., Dam, M. Q., Tran, T., & Nguyen, T. T. (2020). Introducing a tool to gauge curriculum quality under Sustainable Development Goal 4: The case of primary schools in Vietnam. International Review of Education, 66(4), 457-485. https://doi.org/10.1007/s11159-020-09850-1

Hunt, L. (2021). Ocean Literacy and Youth–Integrating a Place Based SDG 14 Intervention into Irish Secondary School Curriculum. International Journal of Technology and Inclusive Education (IJTIE), Volume 10 (1). DOI: 10.20533/ijtie.2047.0533.2021.0204

Husni, A., & Putra, M. M. P. (2018). Pengendalian mutu hasil perikanan. Ugm Press.

Husni, A., & Budhiyanti, S. A. (2021). Rumput Laut Sebagai Sumber Pangan, Kesehatan dan Kosmetik. Ugm Press.

Immordino-Yang, M.H., and Damasio, A. 2007. We feel, therefore we learn: The relevance of affective and social neuroscience to education. Mind, Brain, and Education, 1:3–10. https://doi.org/10.1111/j.1751-228X.2007.00004.x

Kang, S. (2020). Should Unified Korea Choose Fiscal Decentralization for Education? Testing the Decentralization Theory on Education Finance with Cross-Country Analysis for Korean Unification. Current Issues in Comparative Education, 22(1), 58-82.

Kelly, R., Evans, K., Alexander, K., Bettiol, S., Corney, S., Cullen-Knox, C., ... & Pecl, G. T. (2022). Connecting to the oceans: supporting ocean literacy and public engagement. Reviews in fish biology and fisheries, 32(1), 123-143.

Korkmaz, G., Toraman, Ç., & Duran, V. (2021). Paradigm Shift in Education in the Post-COVID-19 World: Is Decentralized Education Possible?. International Journal of Curriculum and Instruction, 13(3), 3318-3343.

Kultsum, U., Parinduri, M. A., & Karim, A. (2022). Comparative studies between public and private Islamic schools in the era of globalization. International Journal of Evaluation and Research in Education (IJERE), 11(1), 421-430. DOI: 10.11591/ijere.v11i1.22182

Leather, M., & Nicholls, F. (2016). More than activities: Using a “sense of place” to enrich student experience in adventure sport. Sport, Education and Society, 21, 443-464. https://doi.org/10.1080/13573322.2014.927758

Leite, C., Fernandes, P., & Figueiredo, C. (2020). National curriculum vs curricular contextualisation: teachers’ perspectives. Educational Studies, 46(3), 259-272. https://doi.org/10.1080/03055698.2019.1570083

Lin, Y. L., Wu, L. Y., Tsai, L. T., & Chang, C. C. (2020). The beginning of marine sustainability: preliminary results of measuring students’ marine knowledge and ocean literacy. Sustainability, 12(17), 7115. https://doi.org/10.3390/su12177115

Litvack, J. I., & Seddon, J. (Eds.). (1999). Decentralization briefing notes. Washington, DC: World Bank Institute.

Manna, P., & McGuinn, P. (2013). Education governance for the twenty-first century: Overcoming the structural barriers to school reform. Washington, DC: Brooking Institution Press

Mc Bee, R.H. (2016). Why teachers integrate. Educational Forum, 64(3), 254-260. https://doi.org/10.1080/00131720008984762

Minahan, J. B. (2012). Ethnic groups of South Asia and the Pacifi c: An encyclopedia . Santa Barbara: ABC-CLIO.

Mwinjuma, J. S., Hamzah, A., & Basri, R. (2015). A review of characteristics and experiences of decentralization of education. International Journal of Education and Literacy Studies, 3(1), 34-41. http://dx.doi.org/10.7575/aiac.ijels.v.3n.1p.34

Naiu, A. S., Koniyo, Y., Nursinar, S., & Kasim, F. (2018). Penanganan dan pengolahan hasil perikanan. CV. Athra Samudra.

Ostertag, J., Ammendolia, J., Vance, A., McPherson, K., Hamelin, K. M., Cousineau, M., ... & Porter, D. (2021). Community-Based Ocean Literacy: Four Case Studies of Ocean Optimism from Mi'kma'ki/Atlantic Canada. Canadian Journal of Environmental Education (CJEE), 24(1), 136-160.

Parveen, R., & Bone, J. (2017). Developing curriculum for the early years: A perspective from Bangladesh. New Zealand International Research in Early Childhood Education, 20(1), 34-45.

Perera, V., Rotinsulu, W., Tasirin, J., Zandvliet, D. (2018). Indonesian Adventures: Developing an Ecology of Place on Sulawesi Utara. In: Reis, G., Scott, J. (eds) International Perspectives on the Theory and Practice of Environmental Education: A Reader. Environmental Discourses in Science Education, vol 3. Springer, Cham. https://doi.org/10.1007/978-3-319-67732-3_8.

Prihanto, A. A. (2021). Pengendalian Mutu Dan Kualitas Hasil Perikanan: Buku Ajar. Media Nusa Creative (MNC Publishing).

Prihantoro, C. R. (2015). The perspective of curriculum in Indonesia on environmental education. International Journal of research studies in Education, 4(1), 77-83. DOI: 10.5861/ijrse.2014.915

Ramasamy, M., & Pilz, M. (2019). Competency-based curriculum development in the informal sector: The case of sewing skills training in rural South India. International Review of Education, 65(6), 905-928

Rawling, E. (2020). How and why national curriculum frameworks are failing geography. Geography, 105(2), 69-77. https://doi.org/10.1080/00167487.2020.12094091

Rodden, J., Eskeland, G. and Litvack, J. (2003). Fiscal Decentralization and the Challenge of Hard Budget Constraints. Cambridge: MIT Press.

Rossi, T., & Kirk, D. (2020). The pedagogisation of health knowledge and outsourcing of curriculum development: the case of the Stephanie Alexander Kitchen Garden initiative. Discourse: Studies in the Cultural Politics of Education, 41(2), 281-298. https://doi.org/10.1080/01596306.2020.1722430

Sagita, N. I., Deliarnoor, N. A., & Afifah, D. (2019). Local Content Curriculum Implementation in the Framework of Nationalism and National Security. Central European Journal of International & Security Studies, 13(4).

Şahin, A. (2018). The opinions of school principals on decentralization in education. Turkish Journal of Education, 7(2), 55-85. DOI: 10.19128/turje.345444

Santelmann, M., Gosnell, H., & Meyers, S. M. (2011). Connecting children to the land: Place-based education in the Muddy Creek Watershed, Oregon. Journal of Geography, 110(3), 91-106. https://doi.org/10.1080/00221341.2011 .534172

Santoro, F., Tereza de Magalhães, A. V., Middleton, F., & Buchanan-Dunlop, J. (2022). A new Blue Curriculum: a toolkit for policy-makers.

SEAMEO INNOTECH. (2012). Decentralization of educational management in Southeast Asia. Philippine: SEAMEO INNOTECH Regional Education Program (SIREP).

Semken, S., & Butler Freeman, C. 2008. Sense of place in the practice and assessment of place-based science teaching. Science Education, 92:1042–1057. https://doi.org/10.1002/sce.20279

Semken, S., Ward, E. G., Moosavi, S., & Chinn, P. W. (2017). Place-based education in geoscience: Theory, research, practice, and assessment. Journal of geoscience education, 65(4), 542-562. https://doi.org/10.5408/17-276.1

Sgouros, R. A., & Stirn, M. A. (2016). Community heritage and place-based learning at the Linn Site, Idaho. Advances in Archaeological Practice, 4(4), 479-491. https://doi.org/10.7183/2326- 3768.4.4.479

Smith, G. A. (2002). Place-based education: Learning to be where we are. Phi Delta Kappan, 83, 584-594. https://doi.org/10.1177/003172170208300806

Soner, O. Y. (2016). Questioning the scholarly discussion around decentralization in Turkish education system. International Journal of Educational Administration and Policy Studies, 8(4), 27-32. DOI: 10.5897/IJEAPS2016.0456

Stedman, R.C. 2002. Toward a social psychology of place: Predicting behavior from place-based cognitions, attitude, and identity. Environment and Behavior, 34:561–581

Sunassee, A., Bokhoree, C., Patrizio, A. (2021). Students' Empathy for the Environment through Eco-Art Place-Based Education: A Review. Ecologies. https://doi.org/10.3390/ecologies2020013

Susilana, Rudi. (2013). Implementasi Kurikulum Berdiversifikasi di Sekolah dasar. Bandung: Repository Universitas Pendidikan Indonesia.

Susilanas, R., Asra, A., & Herlina, H. (2018). The contribution of the self-efficacy of curriculum development team and curriculum document quality to the implementation of diversified curriculum in Indonesia. MOJES: Malaysian Online Journal of Educational Sciences, 2(3), 31-40.

Sutjipto, S. (2015). Diversifikasi kurikulum dalam kerangka desentralisasi pendidikan. Jurnal Pendidikan dan Kebudayaan, 121563. https://doi.org/10.24832/jpnk.v21i3.193

Taşar, H. H. (2009). Merkeziyetçi Yönetim Yapisinin Kamu Okullari Üzerinde Biraktiği Olumsuz Etkiler . Adıyaman Üniversitesi Sosyal Bilimler Enstitüsü Dergisi , (2) , 108-119 . Retrieved from https://dergipark.org.tr/en/pub/adyusbd/issue/1401/16575

Ujianti, R. M. D., & Muflihati, I. (2020). Diversifikasi Produk Olahan Hasil Perikanan Laut. Penerbit NEM.

Wahyudin, D., & Suwirta, A. (2020). Politics of curriculum in the educational system in Indonesia. Tawarikh, 11(2), 143-158. https://doi.org/10.2121/tawarikh.v11i2.1307

Wall, A., & Norman, T. (2021). Teacher Candidates Collaborate to Create Place-Based Integrated Curriculum. Middle Grades Review, 7(3), 7. https://scholarworks.uvm.edu/mgreview/vol7/iss3/7

Ward, E.G., Semken, S., and Libarkin, J. 2014. The design of placebased, culturally informed geoscience assessment. Journal of Geoscience Education, 62:86–103. https://doi.org/10.5408/12-414.1

Winardi, W. (2017). Decentralization of education in Indonesia—A study on education development gaps in the provincial areas. International Education Studies, 10(7), 79-93. DOI: https://doi.org/10.5539/ies.v10n7p79

Wulandari, A., Sujatmiko, S., Priowicaksono, N., Listiyanti, M., Relisa, R., & Priyanto, A. S. (2022). Diversifikasi Kurikulum Satuan Pendidikan dalam Perspektif Hubungan Pemerintahan Pusat dan Daerah. Integralistik, 33(2), 79-89. https://doi.org/10.15294/integralistik.v33i2.37366

Yalçınkaya, M. (2004). OKUL MERKEZLİ YÖNETİM . Ege Eğitim Dergisi , 5 (2) , . Retrieved from https://dergipark.org.tr/en/pub/egeefd/issue/4919/67303

Yang, W., Datu, J. A. D., Lin, X., Lau, M. M., & Li, H. (2019). Can early childhood curriculum enhance social-emotional competence in low-income children? A meta-analysis of the

educational effects. Early Education and Development, 30(1), 36-59. https://doi.org/10.1080/10409289.2018.1539557

Yusuf, N., Hamzah, S. N., Lamadi, A., & Kadim, M. K. (2018). Diversifikasi pengembangan produk hasil perikanan. Gorontalo: CV. Athra Samudra.