The Curriculum Design Diversifies Based On The Islands' Potential

Kasman Kasman[1] Nasir Nasir[2]

[1,2]Universitas Muhammadiyah Makassar

kasman@unismuh.ac.id

Abstract. Through the diversity curriculum it is expected that local education units can adjust, expand, and deepen competence through learning adapted to local and school potential, and the talents and interests of learners. But in doing so, the diversification curriculum has not been implemented properly. There are 55% of the 55 high school teachers in the islands area of south sulawesi who haven't understood the curriculum diversified. The other, 77.75% of the 192 high school students who answered were unaware of the islands' potential for post - capture handling of fish, fisheries processing, diversification of fisheries' results, diversification of seaweed and fisheries quality assurance. The purpose of this study was to design a diversified curriculum based on the potential islands in south sulawesi. It is also an effort by researchers to fill in previous gaps in research studies. The method used in the study was design and development. As for the findings that researchers have successfully obtained of a diversified curriculum design product based on the potential islands. The design of the diversification curriculum is designed to consider two things: the framework for diversifying the design of the curriculum refers to the 2013 curriculum framework, the national education goals and national standards of education and the local content curriculum plans follow the micro curriculum steps. The study suggested local government support and a need for curriculum developers that could facilitate schools in diversified curriculum development.

Keywords: Curriculum Design, Diverse Curriculum, Potential Island Areas

1   Introduction

Decentralized education is not anti-centralization of education, but decentralization of education is a centralized support for education to move in a balanced manner towards the goals of national education. Decentralized education is an unavoidable part to have a separate part by giving space for regional education units to improvise, express, and create all their potential to form an Indonesian society united in diversity. [2] Authority previous administration consisted of the central government and local governments, resulting in changes in various aspects as well as education. Thus, it can be said that regions could independently manage regions by making curriculum adjustments according to regional characteristics and needs in the form of curriculum diversification.

Curriculum diversification is a mechanism for regions to more precisely describe the national curriculum by modifying, expanding, and intensifying competencies through teaching adapted to regional and school conditions, as well as student skills and trends[3]. Refined in the Law of the Republic of Indonesia in 2003 concerning the National Education System (sisdiknas) which is included in article 36, paragraph (2) which reads that curricula at all levels and types are developed with the principle of diversification according to education units, regional potentials, and students [4]. But in doing so, the diversified curriculum has not run optimally or correctly. This phenomenon can be observed through statistical information obtained by researchers through a survey of 55 high school teachers in the South Sulawesi region, that 55 percent of high school teachers do not understand curriculum diversification. On the other hand, a survey of 192 high school students on the islands of Sulawesi in South Sulawesi found 78.75% of students who responded were unaware of the islands' potential for post-capture fish handling, fisheries processing, diversification of fisheries, diversification of seaweed and fisheries quality assurance. In the aspect of the potential of the archipelago, it is a competency that needs to be developed in the diversity curriculum.

Based on field studies, researchers view the lack of understanding and lack of competence of teacher students as underperforming factors for the diversified curriculum in South Sulawesi. When viewed from previous research on curriculum, diversification is still limited in number. Some researchers have suggested that the diversified curriculum is the implementation of the regional curriculum as a form of educational desseration [5], [3], [6], [7]. But in the research findings [3] Continuing that curriculum diversification requires a professional workforce and regional human resource readiness. Something else was found [8] which has developed a diverse curriculum in the field of astronomy with a view to the needs of Japan's maritime community. Study [9] Has implemented a diverse curriculum based on the talents of elementary school students in Jayapura City.

While few studies have studied diverse curricula, findings have yet to be found that address diverse curricula in potential aspects of regions in the island sector. Thus, researchers tried to fill the gap in previous studies through this study with the aim of designing a diversity curriculum design based on the potential of islands in South Sulawesi. This research is very important to be used immediately with the aim of helping teachers who do not understand the diversified curriculum and is expected to improve the competence of learners in the potential field of the island. Competencies obtained through a diversified curriculum are assumed as life skills, especially for learners who do not have the opportunity to continue to college. Another assumption can reduce the rate of urbanization by finding jobs in urban areas, because through the competencies obtained students can improve efforts, management, and development of potential areas of the island.

2   Methods

This research is design and development [1]. The types or categories used in this study are product and tool research, as well as focusing on product diversification curriculum development. This experiment references Peffer's opinion, and so on. At [10] It is a "6-phase design and development research approach" as a framework that includes: (1) research identification; (2) formulation for research purposes; (3) design and development of artifacts; (4) artifact testing; (5) assessment of the results of the test; (6) presentation of test results (Figure 3.1.) This framework was adopted from Peffer et al. (2007) who describe six phases based on the model in the chart below:

Figure 1. 6-Phase Design and Development Research Approach
Source: [10]
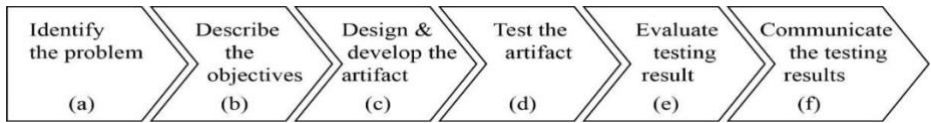
The participants involved in this study were divided into three parts: participants at the preliminary stage, participants at the design and development stage and participants at the testing stage. (1) Introducer participants involved 55 high school teachers and 192 high school students in the islands of South Sulawesi. (2) Participants in curriculum design and development involve fisheries, industry practitioners, curriculum experts and material experts. (3) Test takers involve teachers and learners. As for survey data collection techniques, FGDs, product validation and testing. The collected data was analyzed by applying a mixed method of both quantitative and qualitative data.

3   Results

The diverse curriculum design as an artifact in this study was developed by referring to the 2013 curriculum framework and maintaining guidelines for national education objectives (PN) and national standards of education (SNP). Curriculum development design consists of two steps: 1) a diverse curriculum development framework; And 2) a specially designed local fee curriculum (micro curriculum).
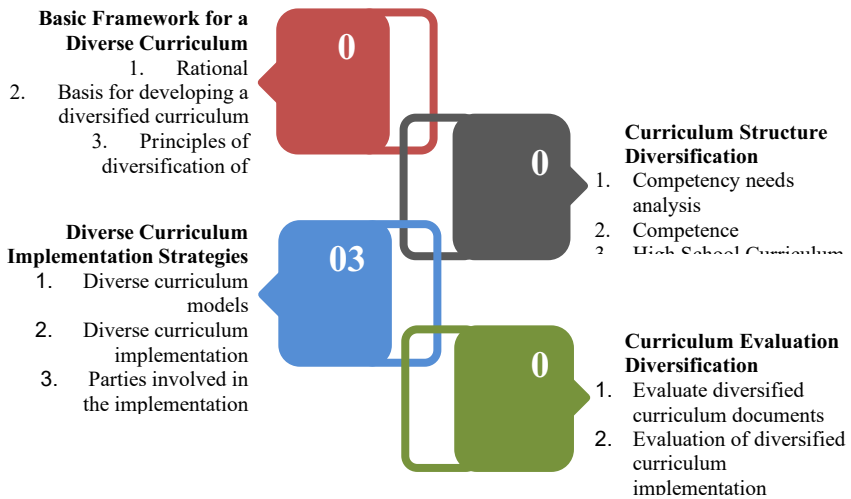
Figure 2. Kurikulumm design is diverse
Source : Research results, 2023
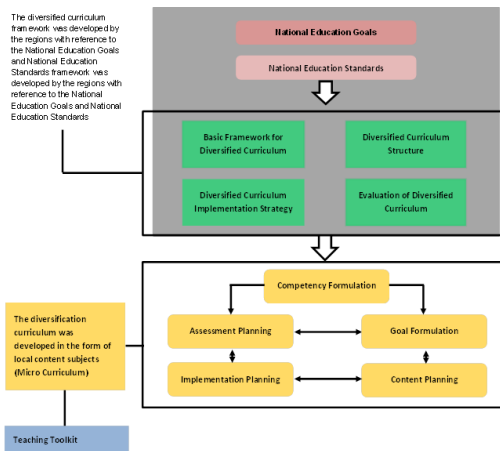
1. Diverse Curriculum Development Framework

A diverse curriculum development framework is the main basis for the preparation of a diverse curriculum basic framework, a diversified curriculum structure, diverse curriculum implementation strategies; And evaluate curriculum diversification. The following is a picture of the diverse curriculum framework.

Figure 3. Diverse Curriculum Development Framework
Source : Research Results, 2023

Basic Framework for a Diverse Curriculum
1. Rational
2. Basis for developing a diversified curriculum
3. Principles of diversification of

Curriculum Structure Diversification
1. Competency needs analysis
2. Competence
3. High School Curriculum

Diverse Curriculum Implementation Strategies
1. Diverse curriculum models
2. Diverse curriculum implementation
3. Parties involved in the implementation

Curriculum Evaluation Diversification
1. Evaluate diversified curriculum documents
2. Evaluation of diversified curriculum implementation

2. Local Content Curriculum Framework (Micro Curriculum)

The curriculum design of local resources is done by following the steps in the micro curriculum design [11] namely: a) formulation of competencies; B) formulation of goals; c) planning curriculum content or learning materials; d) implementation planning; and e) plan learning assessments. The steps are described as follows:

1. Competency formulation

Competency is carried out according to the competency needs analysis obtained through a survey of 192 students. After the competency aspects needed by students, students are further developed as competencies of experts, practitioners and teachers as a competency formula that needs to be developed through a diversified curriculum in the form of local content subjects. The formulation of competencies refers to the core competencies (ki) and basic competencies (kd) of the 2013-2013 curriculum: (1) spiritual attitudes, (2) social attitudes, (3) knowledge and (4) skills. Here are the competencies of local cost subjects.

Table 1. Formulation of Local Load Subject Competencies

Core Competence		Basic Competence
1. Appreciate and practice the religious teachings that it professes	1.1	Appreciates god's blessing on the existence of fisheries that can be developed through the handling of fisheries results, the processing of fisheries results, the diversification of fisheries results, the diversification of seaweed products, and the quality of fisheries results
2. Being disciplined, cooperative, concerned, and honest in handling fisheries results, processing fisheries results, diversifying fisheries results, diversifying seaweed products, and fisheries quality and safety	2.1	Disciplined during the post-catch fish treatment practice
	2.2	Behave disciplined in the process of fish treatment
	2.3	Work together in producing fish-based processed products
	2.4	Are concerned about the sustainability of seaweed ecosystems
	2.5	To be honest in the application of the concepts of sanitation and personal hygiene
3. Explain and understand the handling of fisheries results, the processing of fisheries results, the diversification of fisheries results, the diversification of seaweed products, and the safety and quality of fisheries results	3.1	Explains the post-catch fish treatment procedure
	3.2	Explain the requirements of the fish as a major raw material for product processing
	3.3	Understanding the diversification of fist-based product and the byproduct of fisheries
	3.4	Identifying this type of seaweed as an excellent commodity
	3.5	Understanding the concept of the quality assurance and safety of fisheries results
4. Practiced, demonstrated, and adopted concepts in the handling of fisheries results, the processing of fisheries results, the	4.1	Practicing post-capture handling procedure
	4.2	Practicing the way fish are treated
	4.3	Demonstrated diversified fish-based product
	4.4	Demonstrated diversification of processed products from seaweed

Core Competence	Basic Competence
diversification of fisheries results, the diversification of seaweed products, and the safety and quality of fisheries results	4.5 Applying the concept of sanitation and hygiene personnel in the practice of diversifying fisheries products

Source : Research Results, 2023

Referring to the formulation of competencies made in the first step, learning objectives are then formulated. Learning objectives are formulations of what students will achieve after studying a subject. The following are the learning objectives of local content.

Table 2. Local Content Learning Objectives

Lesson Material	Purpose of Learning
1. Post - capture fish treatment	After completing this learning program, learners will be able to:
	1.1 Explain the principles and goals of properly handling fish
	1.2 Described the proper post-catch handling procedure
	1.3 Practicing proper post-catch handling
	1.4 Disciplined during the post-catch fish treatment practice
2. Fish processing	After completing this learning program, learners will be able to:
	2.1 Explain the requirements of the fish as the primary raw materials used correctly for processing the products
	2.2 Explain the correct methods of fish treatment
	2.3 Practicing the proper manner of handling fish
	2.4 During the practice of fish processing activities, learners work with discipline
3. Diversification of fisheries products	After completing this learning program, learners will be able to:
	1 Explains a correct diversification of pulverized meats and breaded products
	2 Explains the precise diversity of products from inducing fisherie
	3 Demonstrated the production of diversified fish-based product

Lesson Material	Purpose of Learning	
	4	Worked together during the practice of diversifying fish-based product
4. Diversification of seaweed	After completing this learning program, learners will be able to:	
	4.1	Identifying seaweed by type correctly
	4.2	Explains the diversity of seaweed products correctly
	4.3	Demonstrated the production of diversified processed products from seaweed
	4.4	Are concerned about the sustainability of seaweed ecosystems in the surrounding environment
5. The quality and safety of fisheries results	After completing this learning program, learners will be able to:	
	5.1	Knowing the concept of the correct quality and safety of fisheries results
	5.2	Explaining the relationship between hazard analysis critical control point (haccp), good manufacturing practices (GMP) and operating standard operating practices (ssop) in the right quality and safety of fisheries results
	5.3	Implementing the concept of sanitation and hygiene personnel in the practice of diversifying fisheries products according to procedure
	5.4	To be honest in applying the concepts of sanitation and hygiene in personnel

Source: Research Results, 2023

2. Plan curriculum content

Curriculum content planning refers to the process of selecting material that students will obtain to achieve the learning objectives determined in the previous stage. Study materials that become topics in achieving the learning objectives of local content are: 1) post-catch fish handling; 2) fish processing; 3) diversification of fishery products; 4) diversification of seaweed; and 5) ensure the quality and safety of fishery products.

The selection of materials depends on several criteria, including the conditions of a particular area, alignment with the level of development of students, the skills of teachers who will teach, and the accessibility of resources and infrastructure. Another thing of concern is the novelty of the material in line with the latest developments, so that study materials are formulated from various accurate sources, both from library

materials, the internet and from the community. The determination of study materials is carried out by referring to the 2013 curriculum content standards.

3. Implementation planning

The process of delivering curriculum content through learning activities is known as implementation or implementation. The stages in implementing local content subjects as stipulated in the Learning Implementation Plan (RPP) include: (1) reviewing basic competencies and learning objectives; (2) determine study materials for learning; (3) determine learning strategies; (4) outline the steps for learning activities; and (5) determine the type of assessment. In the implementation process, a very influential aspect is determining the learning strategy. In addition to being adjusted to learning objectives and study materials, this learning strategy is also adjusted to the steps of learning activities which include four parts, namely, learning orientation, learning process, feedback or reinforcement, and assessment [11].

The use of strategies in learning local content cannot be determined that the strategy is considered the most appropriate, but rather provides flexibility to teachers in choosing strategies in order to accommodate and ensure student certainty in learning. One of the new strategies assessed to be used in learning local content is e-learning. The basic reason for the need for e-learning is that it can provide a learning experience without the limitations of space and time. Of course, this can support the implementation of the curriculum, especially in island areas.

E-learning includes three different classifications, namely (1) Adjunct, which refers to the conventional mode of face-to-face instruction; (2) Mixed/blended, which requires the integration of online delivery systems into a broader scope of learning experiences; and (3) Fully Online, the use of a comprehensive online platform for all pedagogical interaction and dissemination of learning resources. In addition, e-learning also introduces synchronous and asynchronous learning settings consisting of four categories, namely: (1) Direct Synchronous; (2) Virtual synchronous); (3) asynchronous autonomous); and (4) Collaborative Asynchronous.

4. Assessment planning

Local content learning assessment is carried out in the form of process assessment and assessment of learning outcomes. Process assessment involves giving value to learning activities carried out by teachers and students, while assessment of learning outcomes includes giving grades to student learning achievement based on certain criteria. The relationship between process assessment and learning outcome assessment arises because learning outcomes are the culmination of the learning process.

The purpose of the local content learning assessment is to determine the achievement of competencies which include attitudes, knowledge and skills. Attitude assessment is carried out to determine the success of the development of students' spiritual and social attitudes. Knowledge assessments are conducted to see students' proficiency in cognitive processes. Skill assessment is carried out to see the ability of students to apply the knowledge gained to certain businesses, based on indicators of competency achievement.

4   Discussion

This research has presented a diverse curriculum design based on the potential of the archipelago. Researchers design curriculum design by considering two important things, namely creating a diverse curriculum development framework and preparing curriculum designs for local content subjects. The diversified curriculum development framework was developed with reference to the 2013 curriculum framework and remains guided by the National Education Goals (TPN) and National Education Standards (SNP). The diversified curriculum development framework is designed into four parts, namely: 1) the basic framework of the diversified curriculum, 2) the structure of the diversified curriculum, 3) the strategy of implementing the diversified curriculum; and 4) evaluation of diverse curricula. Meanwhile, the curriculum design of local content courses is developed by following the steps of micro curriculum design. Meanwhile, curriculum design for local content subjects is carried out by following the steps in curriculum design consisting of: 1) preparing competencies; 2) goal setting; 3) organizing curriculum content or study materials; 4) implementation of strategic planning; and 5) micro-learning assessment design. [11].

This curriculum design is oriented to be an alternative curriculum that can be used by teachers of local content subjects. Because local content is an effort to accommodate the demands and needs of each region through learning [12]. In its implementation, it is expected to strengthen student competence related to the potential of the archipelago as a study content in the diversification curriculum. The findings of this study are in line with: [13] in his book Place-Based Curriculum Design. A place-based curriculum is one that links academic learning with the environment and local community as a learning context [14], [15].

The place-based curriculum is basically a support for the implementation of place-based education (PBE). Place-based education, known as PBE, is a pedagogical approach that establishes links between teaching and learning processes and the immediate geographic environment. [16]. PBE aims to overcome academic isolation by building links between schools, communities and neighborhoods. In its implementation, PBE is highly appreciated by students for using fun strategies, focusing on the future, direct learning and connecting with the community.

Figure 3. Place-Based Education

This curriculum design is also in line with the local excellence-based curriculum which focuses on utilizing local potential and the characteristics of a region through local excellence-based education [17], [18]. A local excellence-based curriculum can be implemented through curricular internalization, extracurricular activities, and the creation of a hidden curriculum [19]. Apart from that, the implementation of a curriculum based on local excellence can also be achieved through extracurricular programs, infrastructure improvements and routine school activities [20].

It is hoped that the findings of this research can support the Nations Decade of Ocean Science for Sustainable Development (2021–2030) program to increase ocean literacy through the blue curriculum. The formulation of a blue curriculum encompasses the incorporation of the ocean into various components of the curriculum, including but not limited to: goals, extent and progression, dispositions, duration, resources for both students and teachers, statutory subject dissemination, exigency assessment, pedagogical exercises, educational resources, study proficiencies, linguistic proficiencies, vocabulary, syntax and evaluation [21]. Ocean literacy in the blue curriculum is an approach for society to protect, preserve and utilize the sea sustainably. Based on the explanation above, it can be explained that the curriculum design that has been developed by researchers can contribute to the implementation of place-based education, which specifically connects students' academic experiences with island areas. Study materials developed in diversified curriculum design can be implemented in the form of local content subjects (micro curriculum) through education based on local excellence. In addition, it is hoped that the findings of this research can support the Nations Decade of Ocean Science for Sustainable Development (2021–2030) through the blue curriculum as an effort to increase foreign literacy.

5   Conclusion

This research has presented a diverse curriculum design based on the potential of the archipelago. Researchers design curriculum design by considering two important things, namely creating a diverse curriculum development framework and preparing curriculum designs for local content subjects. The diversified curriculum development framework was developed with reference to the 2013 curriculum framework and remains guided by the National Education Goals and National Education Standards. The diversified curriculum development framework is designed into four parts, namely: 1) the basic framework of the diversified curriculum, 2) the structure of the diversified curriculum, 3) the strategy of implementing the diversified curriculum; and 4) evaluation of diverse curricula.

Meanwhile, the curriculum design of local content courses is developed by following the steps of micro curriculum design. Meanwhile, curriculum design for local content subjects is carried out by following the steps in the micro curriculum design which consists of: 1) compiling competencies; 2) goal setting; 3) organizing curriculum content or study materials; 4) implementation of strategic planning; and 5) micro-learning assessment design.

The findings of this study have contributed knowledge in the development of curriculum diversification. Another contribution is that this curriculum design is oriented towards alternative curricula that teachers can use in local content subjects. So that in its implementation, it is expected to be able to strengthen student competence related to the potential of the archipelago. In practical terms, this curriculum design is in line with the implementation of place-based education and local excellence-based education. It is also expected to support the Nations Decade of Ocean Science for Sustainable Development (2021–2030) program to improve ocean literacy through the blue curriculum.

Although this study found some things that were considered interesting, it still had some shortcomings, such as the location of the study that was still specific to the archipelago in South Sulawesi. The curriculum design that has been designed by researchers has not been tested in terms of validity, effectiveness and practicality. Therefore, this study encourages further research to be carried out in areas on a wider scale. It is also expected that there will be further research to test the level of validity, effectiveness and practicality of the curriculum design that has been designed by researchers. In another aspect, this study suggests the existence of local government regulations to support the development of diverse curricula, especially in island areas. As well as the existence of curriculum development staff (TPK) who can facilitate schools in developing diverse curricula.

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