

# Vocational Education Based on Marinepreneur for Developing Island and Coastal Communities in ASEAN

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**Abstract.** The ASEAN Working Group on Coastal and Marine Environment (AWGCME) gathers ASEAN member countries at the 18th Meeting in Metro Manila, Philippines, 11-12 May 2017. This meeting discussed the issue of conservation and protection of coastal and marine areas. Furthermore, the meeting discussed the progress of implementation of various AWGCME activities, the potential for collaborating with partners, and discussed about related documents of ASEAN Community Vision 2025, such as the draft of the ASEAN Strategic Plan on Environment (ASPEN) and the AWGCME Action Plan. An effort to follow up the meeting consensus is to make a roadmap and a concept of vocational education to optimize the management of island and coastal resources in the ASEAN region. This optimization is through the provision of human resources or workers who have competence and motivation in the field of island and coastal resources management (marinepreneur). Therefore, this paper aims to create the concept of vocational education based on ASEAN Community Vision 2025 from AWGCME. The method used to create the concept of vocational education is literature study. The paper discussion starts from gathering relevant literature about vocational education and vocational training based on maritime resources, then analyzed, synthesized, and concluded as a concept of vocational education and vocational training based on maritime resources. The concept of vocational education provides greater opportunities for coastal community empowerment and optimization of maritime potential for sustainable development in ASEAN. Generally, the roadmap starts from assessing the capacity and potential of a coastal area and islands in the ASEAN region, forming a cooperation forum between stakeholders (island and coastal government authorities, academics, and industry associations in maritime sector), establishing a standardization and certification scheme of vocational education based on marinepreneur in the ASEAN region, curriculum development, and implementation of vocational education based on marinepreneur in pilot project schools.

**Keywords** - marinepreneur, vocational education, island and coastal communities

## INTRODUCTION

The problems of people living in coastal areas are concerned with the causes of poverty. Generally, people living in the coastal areas are dependent on the use of marine and coastal resources. This is strongly influenced by the seasons and it requires substantial investment. Their day-to-day work as small fishermen, small-scale fish managers, fishermen workers, and small traders, is due to limited investment capability (Febrianto & Rahardjo, 2005).

The study conducted [1] shows the coastal area of Minahasa is poorer than non-coastal communities. Another report mentions that in South Sumatra, the percentage factor of fishermen in a group is positively correlated with higher average household incomes, while higher farmer income levels are negatively correlated with the percentage of farmers in the area. The conclusive analysis of the data is that perceptions and statements that coastal communities are the poorest cannot be supported because of the diversity between the level of progress and income of fishermen in different areas. Courtney (1999) in his research in the Philippines shows some declining results of coral reef damage, fishery catches, mangrove forest destruction, and rising pollution numbers that led to coastal communities experiencing increasing poverty.

This poverty factor becomes a way to decrease also the level of education. Kuncoro, (in Sharp, et. al., 1997: 131) describes and analyzes the causes of poverty that come from the economy. The causes are from the micro aspect, the difference in the quality of human resources, and the difference in the access to capital. On the micro-side, poverty will arise from the unevenness of the pattern of resource ownership, thereby resulting in an unfair distribution of income. Then from the side of the difference in the quality of human resources, the quality of human resources has an impact on the low productivity, so that the working wage earned is also low. While differences in the access to capital are limited knowledge and trust of the other party becomes a factor also the limitations experienced by the poor.

The strategic role of education, especially vocational education, is to produce skilled people in the fields that suit their needs. The world of vocational education is growing rapidly. The development of vocational learning model refers to the philosophy of vocational education with the main objective of education that is the efforts of maturity, awareness, spiritual growth, and enlightenment

of the meaning of life. The improvement of life through education is one of the most relevant aspects that are apt to development. Future-oriented vocational education fits the philosophy of pragmatism [2]. The philosophy of pragmatism puts vocational education as the goal of fulfilling all the necessities of life undertaken by the individual.

The superiority of vocational education over equivalent technical education is to produce competent graduates and experts in a particular field. The applied learning is adapted to market developments, local wisdom; it prioritizes the competence capabilities rather than theory. Changes in the workforce encourage vocational education to conduct work-based learning that develops work competencies in accordance with the labor market and resource conditions. [3-4-5].

Vocational education developed for coastal areas is entrepreneurial based. This entrepreneurial election is another scope of vocational education that essentially produces workers. Entrepreneurship plays a lot for the economy of a State. In the national economy, entrepreneurs have great benefits for creating jobs, reducing unemployment, increasing community incomes, combining factors of production (nature, labor, capital, and skill), and increasing productivity.

Before entering the core development of vocational education learning based on coastal areas, the mapping and opening of roads for the development of a clearer direction are significant. Roadmaps ranging from assessing capacity and potential of coastal areas and islands in the ASEAN region, forming a forum of cooperation between stakeholders (island governments and coastal governments, academics and industry associations in the maritime sector), establishing standardization and certification of vocational education schemes based on marinepreneurs in the ASEAN region, curriculum development, and implementation of vocational education based on marinepreneurs in pilot schools project.

The second focus of this paper is the discussion of mapping and clearing of roads for the development of a clearer direction about marinepreneur and the development of vocational education developed for coastal areas which is entrepreneurial based.

## METHOD AND MATERIALS

The method used to create the concept of vocational education is the literature review. The research is conducted by seeking relevant literature on vocational education and vocational training based on maritime resources, then analyzed, synthesized, and concluded as the concept of vocational education and vocational training based on maritime resources. The first step is to compile a roadmap starting from assessing the capacity and potential of the area coast and islands within the ASEAN region, then establishing a forum of cooperation between stakeholders (island governments and coastal governments, academics and industry associations in the maritime sector), establishing the standardization and

certification of vocational education schemes based on marinepreneurs in the ASEAN region, curriculum development, and implementation of vocational education based on marinepreneur in pilot schools.

The discussion begins with gathering relevant literature on vocational education and vocational training based on maritime resources, then analyzed, synthesized, and concluded as the concept of vocational education and vocational training based on maritime resources.

## RESULT

Implementation of vocational education in coastal areas requires a different approach from the development of vocational education in other areas. Coastal communities include people who live daily and interact with the coastal environment. The identity of the residence, in this case the coastal nature, becomes an important binding element that distinguishes a society from other social units [6]. Coastal communities have characteristics of their attitudes toward nature and humans. Most of them are subordinate to nature and seek to keep the relationship in harmony with nature. Factors influencing the life of coastal communities, for example, tides, sea waves, seasonal changes, and flora-fauna become the object of livelihood and cultivation by coastal communities.

The development of coastal cities always follows the pattern of the morphology of urban formation around the beach. The term coastal/coastal city is the center of a large area, that has a population of about 20 thousand inhabitants and its population continues to increase as people get easy access to the sea, rivers, beaches and natural areas and easy access to work, services, and employment as well as availability of housing (Coastal Design Guidelines for NSW, 2003). The pattern of growth of a region begins with the development of settlements. In addition, the development of coastal settlements into cities is inseparable from the role of coastal areas such as the role of ports, the presence of traders and immigrants, urbanization, and the expansion of tourism. Therefore, a roadmap and vocational education concept that are in line with the characteristics of the coastal community are needed.

The following is a roadmap for the implementation of vocational education based on marinepreneur:

### **Assess Capacity and Potential of Coastal Areas**

This stage is the earliest stage of the process of organizing vocational education based on maritime resources. At this stage, identification and analysis of kinds of potentials of coastal region should be conducted. For example, the potential in marine tourism, the potential of fisheries, the potential of marine transportation services, mineral resources potential, oil, and gas, or other potentials owned by the local area. The results of this identification then analyzed with its opportunities and challenges ahead whether it continues to be developed. This is considering the training process

which certainly takes no time to produce competent outcomes.

### Determining Work Competencies

This stage is a stage that will define work competencies to be trained to learners. This competency must be clear, specific, and measurable to what extent this competence is. This is important because this competency is a benchmark evaluation of the effectiveness of the implementation of the undertaken training process. Therefore, from the outset prior to drafting the training curriculum, these competencies must be well defined in terms of the previously identified coastal resource potentials. This stage should involve various stakeholders such as local government, local industry, the organizers of work competence certification, and the organizers of vocational education.

### Curriculum Design

At this stage, the curriculum is designed based on predetermined competencies. The design of this curriculum should contain specific job training materials, containing entrepreneur values. It should also represent the model and training methods to be carried out, the duration of the training, and the evaluation model to measure learners' competency. This curriculum is designed with an emphasis on developing motivation and entrepreneur skill for learners. This is important because the goal of vocational education-based marinepreneur education is the strengthening of entrepreneur values in managing natural resources in coastal areas.

### Curriculum Development

At this stage, the curriculum has been developed and further developed to be more practical and technical in its implementation. At this stage, it is necessary to develop an appropriate training module, training models and methods to be implemented, and an evaluation sheet ready for use. In addition, in the development of this curriculum, appropriate learning and training methods to develop motivation and entrepreneurship skills of learners need to be applied. The organizers of vocational education need to consider the development of the business unit of the school as an incubator of the school business and as a real entrepreneurial learning container for learners.

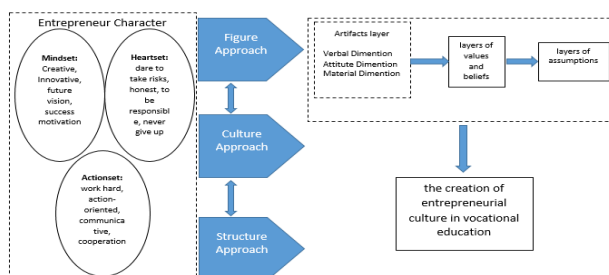


Figure 1. Model of Entrepreneurship Culture Development in Vocational Education

### Implementation of the Training Process

This stage is to implement the curriculum that has been developed and existed previously. This stage must be ensured to proceed in accordance with the curriculum content both in terms of trained material, model and method, duration of time, and evaluation used. In the implementation phase, the instructor becomes an important element and becomes the leader in the implementation of learning process/training. Instructors should be given sufficient flexibility to develop their own training activities that are conducted but still according to the existing curriculum. An instructor must have good motivation and skill in entrepreneurship. This is important because the learning and training process focuses on entrepreneur values.

### Job Competence Test

This evaluation stage is conducted to find out how far the effectiveness and efficiency of the training process have been implemented. This evaluation will see the achievement and control of the competencies that have been determined at the beginning. The important thing to note at this stage is the evaluation that must be done individually to see the mastery of the competence of each learner. In addition, the evaluation should be a performance-based evaluation in the sense that evaluation is performed by individual testing to measure certain performance in accordance with the predetermined standard of competency control. In addition to the job competence test, entrepreneurship skill test of competence should be made available to see how far learners understand and master the concept of entrepreneurship.

### CONCLUSION

The concept of vocational education based on marinepreneur is the concept of education that organizes education and training work based on natural resources in coastal areas by emphasizing the value of entrepreneurs as the outcomes. Marinepreneur-based vocational education is organized with several sequential stages/sequences starting from identification and analysis of natural resources potential in coastal areas (analyze and identify), identifying and defining the work competencies needed to manage the good potential of coastal natural resources, designing systems and training processes ranging from curriculum, instructor, and implementation of the training process, developing the curriculum by determining the training materials that will be given to the students, implementing the curriculum which have been compiled and developed, and performing skills competency tests based on the competencies that have been predetermined.

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