The application of Vocation Technology for Fisheries Processing at SMKN 7 Kota Serang to Prepare Students to Compete in Maritime Sector

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Abstract

Absorption of students at the SMK level is in fact still not leading to the appropriate field. The lack of human resources in marketing superior products in their schools proves that Serang City Vocational School 7 is not ready to compete in developing processed products in larger industries. The method used in this research is descriptive qualitative method through observation and interviews with related teachers in the field of fisheries in the application of technology as a learning support to be able to compete in the world of work. The results of the study show that there is still a lack of competency in the field of fisheries in empowering teachers and students to be able to compete in the field of fisheries. It can be concluded that in teaching and learning practice there are still obstacles in the implementation of education in terms of technology, especially internet allowances. The need for government and institutional action in encouraging teacher competence in the field of fisheries and balanced with the implementation of empowerment results to be applied in the school environment. In addition, supporting infrastructure must be provided to support field practice in the world of fisheries.

Keywords: fisheries education, vocational technology, teacher and student empowerment

A. INTRODUCTION

With an area of 1,905,000 million km2 dominated by coastal and marine regions, Indonesia generates money for the nearby communities through activities like fishing, fisheries processing, or agriculture. As a result, coastal communities have the capacity to use processes with economic value on a conventional industrial scale to suit their demands. in 2002 (Herawati). The government needs to pay more attention to human resources in the field of fisheries processing education, such as teachers. Because an increase in the number of students must be accompanied with an increase in the teachers' level of expertise. Although it is still undervalued, the teaching profession is crucial to the efficient organization of the KBM process due to the caliber of graduates and rising teacher competency. Therefore, the government must provide instructors and students with sound advice if they are to create a generation that can continue the fisheries industry. Friends who wish to pursue vocational education, particularly those that lead to the fishing industry, should avoid this field because it is still a layman's game. It should be taken into consideration that there is less assurance in the realm of work rivalry. Given the potential our nation possesses, a significant amount of capital is needed to hire all the personnel designated for the fishing industry.

B. RESEARCH METHODS

Qualitative descriptive research methodologies are applied to support this study. Sugiono defines qualitative research as study in which data is gathered by combination and

general analysis (Sugiono, 2010: 9). Direct observation of people or items is how qualitative research collects the necessary data. (2003) Moleong, J.L. Interviews were conducted at SMKN 7 Serang City, a school in Serang City, Banten Province, located at JL. Raya Bangdes Kampung Baru Pakupatan, Panancangan Village, Cipocok Jaya District. Interviewing a teacher who completed the Agroindustrial Technology Study Program was done on April 12, 2023. Because SMK 7 Kota Serang has a department focused on the processing of fishery products, which is related to the maritime world and in line with current educational technology issues, particularly in vocational schools in Serang City, there is a relationship between the object of observation and the theme we selected.

Providing an overview with data analysis is communication, according to Sukmadinata (2011). By prioritizing data detail in qualitative analysis, it is possible to obtain reliable data from this information by having a thorough understanding of the issue at hand (Miles and Huberman, 2014).

C. RESULTS AND DISCUSSION

Education programs in vocational schools, in principle, prioritize to become skilled people and able to overcome existing problems. This education must be able to adapt to changes in vocational education. Because with the readiness of educational institutions to be able to anticipate every graduate to reduce the number of unemployed. The solution is to be able to facilitate education with the conditions of the world of work that continues to develop. According to Bhattacharyya (2018), in order to be competent in the world of work, competencies and skills are needed that support the determinants of the industrial world that are increasingly strict in their qualifications.

In the development of science that is increasingly developing both in terms of teaching materials and teaching techniques carried out by teachers to create a learning process that produces innovation, creative, and imaginative so as to be able to combine fisheries processing with the use of technology both in terms of processing and marketing.

Based on several questions asked to the fisheries processing teaching teacher of SMK 7 Serang City, an overview of the application of technology in fisheries processing to vocational education was obtained.

Constraints in the implementation of education in terms of technology

The information we obtained through interviews with teachers who teach in the field of fisheries processing said that:

> "This school already has a smart school, but what is still constrained is in terms of internet allowances such as quota or wifi for the learning process. Because the wifi that is already available here access is still limited and not maximized thoroughly by its users"

This common problem has occurred in almost every city in Indonesia. Especially in the early days of the pandemic, schools experienced challenges between equitable access or decreased motivation to learn from their students. However, until now the uneven distribution of facilities in Serang City is still a strong reason why schools have not maximized this.

Absorption of labor competencies from students of SMKN 7 Serang City in accordance with the scope of education

Based on the research obtained, SMK Perikanan is designed to increase the usefulness of the fisheries sector to compete in the maritime world professionally. But in reality, education at SMK Perikanan is still considered less attractive in its distribution due to economic problems. Weak labor optimization in the fisheries sector requires the existence of directed and appropriate management so that the opportunity gives birth to a generation that is in accordance with their fields.

As in the interview we conducted with the teacher concerned, he said:

> "Indeed, from here there are graduates who go to college and entrepreneurship but can be counted fingers, only a few of the rest are indeed average work. Most of them work in restaurants or hotels that provide processed seafood. But it is undeniable if the graduates are more dominant, not leading. Because they see the scope of work in Serang City which is dominated by factories such as ikomas, many of them end up choosing this alternative as their job."

In Permendikbud Number 9 of 2020, it is explained that SMK in its management is included in the authority of the Directorate of Vocational High Schools, namely:

1. Determine policies, management, supporting infrastructure for students as a service in vocational high schools.
2. Guarantee the quality policy of all students.
3. Formulate procedures, rules and norms within the school environment.
4. Provide facilities to support learning in practice in the world of work.
5. Provide monitoring between teachers and students to train competencies according to their fields.

Government programs in encouraging the quality of competence of fisheries teachers

In Law Number 20 of 2003, to apply active learning to students, it is necessary to develop their potential by having the spirit of religion, self-adaptation, and intelligence needed in each student.

Racing on this law, the government has a training program organized by the government (Rusdin, 2017). Institution that accommodates for the Development and Empowerment of Education and Education Personnel in the Field of Marine Fisheries, Information and Communication Technology (LPPPTK KPTK). Has the duty of developing and improving teacher competence in order to be able to implement in their school environment (Wardinur &; Mutawally, 2019).

In the interview that we got with Mrs. Esya she said "for the program provided by the provincial government there is a matter of teacher empowerment, usually these teachers register through the link provided by the government about the program, which presents an obstacle that our school lacks in delivering information about the program. So, it was us fisheries processing teachers who took the initiative to seek information about the government program," he said

Supporting infrastructure facilities and school excellence programs in supporting field practices in the world of fisheries

Racing on Presidential Instruction No. 9 of 2016 concerning the Revitalization of Vocational High Schools In order to improve the quality and competitiveness of human resources in Indonesia, the learning indicators available in SMK aim to harmonize the process of introducing skills through industrial practice models. Teaching factory is a type of product-based learning, both in the form of goods and services to create school synergy with industry so that the absorption of graduates has competencies that are in accordance with the needs of the industrial market.

In general, teaching factory has 3 main components, namely:

1. Provide competent delivery media through products/services.
2. Assemble the work model in accordance with standard procedures required by the industry.
3. Linking learning with the world of work in order to optimally develop the effectiveness of introduction to students.

The results of interviews with teachers related to experts in the field at SMKN 7 Serang City, explained that: explain that:

> "Yes, if viewed globally outside the context of fisheries, maybe this school has morning apples, although it is common in every school but it does have a big impact in training them to be more disciplined. While in the scope of fisheries, this school has a Teaching Factory where for example there are samples of processed products that we make that can be sold directly, the learning model is like in the food processing industry. The finished production will later be marketed by the students themselves, but so far the marketing is still in the closest scope between the students to their friends and family, or to areas near here, so not to the big market place."

Here are some examples of Teaching Factory activities at SMKN 7 Serang City in carrying out fieldwork practices to support learning skills:

Table 1. Examples of Teaching Factory activities at SMKN 7 Serang City

Documentation	Information
	The students carry out product marketing as a result of marketing their processed products through stands that are sold in the school canteen.
	Documentation of students majoring in Fishery Product Processing Technology using practice attributes with their field teachers.
	Teaching factory practice activities in the processing laboratory.

Documentation	Information
 Rabu, 24 Mei 2023 | 23:27:25 WIB **Pelatihan Pengolahan Rumput Laut** Dinas Kelautan dan Perikanan Provinsi Banten Melaksanakan Kegiatan Pemberdayaan Ekonomi Masyarat Pesisi dengan Pelatihan Pengolahan Rumput Laut	There is also a training program in seaweed processing.
 Rabu, 24 Mei 2023 | 23:27:25 WIB **PEMBUATAN SABUN RUMPUT LAUT** Praktek pembuatan sabun rumput laut yang dilakukan kelas XII APHPI	Product examples produced.
 Rp. 2,000 **BANDO (BANDENG EKADO)**  Rp. 10,000 **PEMPEK IKAN**	Examples of products processed by students of SMK 7 Kota Serang that have been successfully marketed.

Documentation	Information
 KAKI NAGA IKAN  ANEKA JUS  BASO IKAN BIASA  STEAK BANDENG	

Source : ***https://teachingfactory.smkn7kotaserang.sch.id/***

D. CONCLUSION

Educational institutions, particularly those in the fishing industry, are challenged by the role of education in the age of the industrial revolution. The use of technology in education, particularly the advantages of the Internet, nevertheless faces obstacles in KBM

practice. Government and institutional efforts are required to support teachers' expertise in the field of fisheries, while also balancing such actions with the implementation of empowering outcomes to be used in the educational setting. Additionally, prasarana support facilities should be made available to aid in field practice in the fisheries industry.

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