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# Development of maritime school management as a center of excellent in supporting the learning process

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#### ARTICLE INFO ABSTRACT Improving the quality of Human Resources in the marine sector through the development of Vocational High Schools in the Maritime Sector still faces challenges. Link and match with industry Article history have not happened thoroughly other than that educators are not adequate. Vocational High School Received: 2022-11-18 teachers have not met the needs, so it is necessary to develop the management of Vocational High Revised: 2023-01-09 Schools in the maritime sector. The purpose of this Community Service activity is to conduct training Accepted: 2023-01-16 to develop maritime school management to make vocational high schools in the maritime field a Published: 2023-02-24 Center of Excellence (CoE) in Supporting the Learning Process. The method used in this service activity is training carried out with three kinds, namely: lecture method, discussion and question and answer Keywords method as well as an evaluation method. The results of the service show that with this training, the Center of Excellence COE of vocational education vocational schools that are increasingly relevant to the demands of Development community needs that are constantly changing according to the development of the Learning Process business/industry world and can support the learning process regularly and continuously. The results Maritime of the training evaluation showed the enthusiasm and positive motivation of the trainees which was School Management marked by the value of the evaluation results of the implementation of the training obtained an average score of excellent criteria of 79.33% and a good of 20.67%. After the training, it is hoped that training participants can hone their skills in developing maritime school management. Pengembangan manajemen sekolah bahari sebagai pusat unggulan dalam menunjang proses Kata kunci Manajemen sekolah pembelajaran. Peningkatan kualitas Sumber Daya Manusia bidang kelautan melalui pengembangan Sekolah Menengah Kejuruan Bidang Maritim masih menghadapi tantangan. Link and match dengan Maritim industri belum terjadi secara menyeluruh selain itu tenaga pendidik belum memadai. Guru SMK Perkembangan belum terpenuhi kebutuhannya, sehingga perlu dikembangkan pengelolaan SMK di bidang Proses pembelaiaran kemaritiman. Tujuan dari kegiatan Pengabdian Kepada Masyarakat ini adalah melakukan pelatihan Pusat Keunggulan pengembangan manajemen sekolah kemaritiman untuk menjadikan SMK bidang kemaritiman sebagai Center of Excellence (CoE) dalam Mendukung Proses Pembelajaran. Metode yang digunakan dalam kegiatan pengabdian ini adalah pelatihan yang dilaksanakan dengan tiga macam, yaitu: metode ceramah, metode diskusi dan tanya jawab serta metode evaluasi. Hasil pengabdian menunjukkan bahwa dengan adanya pelatihan ini, SMK pendidikan kejuruan semakin relevan dengan tuntutan kebutuhan masyarakat yang terus berubah sesuai dengan perkembangan dunia usaha/industri dan dapat menunjang proses pembelajaran secara teratur dan berkelanjutan. terus menerus. Hasil evaluasi pelatihan menunjukkan antusiasme dan motivasi positif peserta pelatihan yang ditandai dengan nilai hasil evaluasi pelaksanaan pelatihan memperoleh skor rata-rata kriteria sangat baik sebesar 79,33% dan baik sebesar 20,67%. Usai pelatihan, diharapkan peserta pelatihan dapat mengasah keterampilannya dalam mengembangkan manajemen sekolah maritim. Copyright © 2023, Hartanto et al This is an open-access article under the CC-BY-SA license

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#### INTRODUCTION

Indonesia is the country with the largest marine biodiversity in the world. The content of marine wealth covers an area of two-thirds of the area that is abundant with various types of marine life and fish such as shrimp, tuna, skipjack, snapper, baronage, crab, grass, ornamental fish sea, all of which have high economic value (Cleary & Devantier, 2011). There are no less than 8500 species of fish, 555 species of seaweed and 950 species of coral reef biota(Oktavilia et al., 2019). In addition, Indonesia also has renewable energy resources such as geothermal, solar energy, wind and wave energy (Alhamid et al., 2016). However, all these potentials require Human Resources with qualified knowledge and skills to process them into national superior commodities that add value. Indonesian Human Resources must be skilled, mastering science and technology(Darsana & Sudjana, 2022). Indonesia has great potential to get out of the trap of being a middle-income country(Aviliani et al., 2014). Because currently, Indonesia is at the peak of demographic bonuses, where the population of productive age is much higher than the unproductive age.

National education functions to develop the ability and shape the character and civilization of a dignified nation to educate the nation's life, aiming to develop the potential of students to become human beings who have faith and piety in God Almighty, have a noble character, healthy, knowledgeable, capable, creative, independent, and become democratic and responsible citizens(Legistia, 2019). More specifically, Vocational Education is secondary education that prepares learners primarily to work in a particular field. Vocational Education is higher education that prepares students to have jobs with certain applied skills maximum equivalent to undergraduate programs (Moodie, 2002). Maritime Vocational High School is included in vocational education. The Maritime Vocational High School consists of Fish Fishing Vessel Sailing (consisting of Nautical Fish Fishing Vessels and Fishing Vessel Teknika), Commercial Vessel Sailing (consisting of Commercial Vessel Engineering), Fisheries (consisting of Freshwater Fisheries Agribusiness, Brackish and Marine Fisheries Agribusiness, Ornamental Fish Agribusiness, Seaweed Agribusiness, Marine Fisheries Industry) and Fishery Product Processing(Håvold, 2010). Many vocational education challenges and policies include: first, link and match with industry have not yet occurred as a whole. Industry involvement in vocational implementation is still very limited (Areli et al., 2020).

In Vocational High Schools there are 146 skills considered too many and inefficient. Unemployment of Vocational graduates (Vocational High School and Diploma I / II / III) is 16.41% of the total unemployed (Yunikawati et al., 2018). Vocational High Schools topped the list at 10.42%. Industrial interest in collaborating with vocational is limited. Second, educators are not adequate. According to Widayati et al., (2021), Vocational High School teachers have not met the needs, 56% of Vocational High School teachers are general teachers, (language, religion, etc.), and there is still a shortage of 314,674 skilled teachers. There are still many Vocational High School principals who have not been trained as CEOs. The ministry of education encourages Vocational High Schools to partner with industry (Jerusalem & Fitrihana, 2019). Second, the construction and revitalization of Vocational High Schools towards a centre of excellence according to the focus of vocational revitalization (Ahmad, 2020). Third, coaching school management and accreditation by industry. Fourth, the equipment assistance is by the standards of the industry (Jordan et al., 2015). Fifth, fostering Vocational High Schools in the creativity of products and services and creating safe schools (Amponsah et al., 2019). Sixth, facilitation to the provincial government in organizing Vocational High Schools. Seventh, the development of the character of the work culture and the assistance of the Smart Indonesia Card for Vocational High School students (Wahjusaputri & Bunyamin, 2022). Revitalization of Vocational High Schools. More specifically, the initial stage is the assessment of the vocational high school revitalization master plan, which is the determination of vocational high schools to be trained based on assessment data and the revitalization master plan of 730 vocational high schools.

Scientific Productivity from Islamic Sciences The Ministry of Culture intervened in 407 Vocational High Schools Center of Excellence in the form of assistance in facilities, infrastructure, application of industrial learning, certification and development of work culture (Nugraha et al., 2016). To expand its impact on society and related industries, these 407 Center of Excellence Vocational High Schools (including Maritime Vocational High Schools) provide services for surrounding Vocational High Schools, as well as the provision of work competency training services for the public and the production of goods and services, especially in the maritime field. Efforts to improve the quality of Human Resources in the marine sector through the development of Vocational High Schools in the Maritime Sector still face challenges (Suwandi et al., 2021). The first challenge, linking and matching with the industry has not happened thoroughly. Industry involvement in vocational implementation is still very limited. Industrial interest in collaborating with vocational is limited. The second challenge is that educators are not adequate(Baldwin et al., 2011; Al-Balas et al., 2020). Vocational High School teachers have not met the needs, 56% of Vocational High School teachers are general teachers, and there is still a shortage of 314,674 skilled teachers. So it is necessary to foster the management of the Maritime Vocational High School. From the above background, the Education and Sports Office, the Vocational High School section in the field of secondary education, in collaboration with the Yogyakarta Maritime College held training on the development of maritime school management to make Vocational High School in the maritime sector as a Center of Excellence. The purpose of this Community Service activity is to conduct training to develop maritime school management to make vocational high schools in the maritime field a Center of Excellence in Supporting the Learning Process. The contributions of this community service activity are (1) Increasing the role of the Yogyakarta Maritime College in the development of Maritime school management; (2) Improving the quality of teacher learning, and its impact can improve the quality of maritime graduates; (3) Support the achievement of Key Performance Indicators Number 7 of the Directorate General of Higher Education Research and Technology; (4) Improving the implementation of the Merdeka Belajar program in maritime schools (5) encouraging the achievement of SDGs goal number 8, as a preparatory workforce capable of competing in this increasingly complex world (Winaryati et al., 2022; Rieckmann, 2017; United Nations Educational, 2017)

### METHOD

This community service was held by the Education and Sports Office in the framework of Culture-Based Education activities, a sub-section of local content development activities, a section of Vocational High Schools in the field of secondary education, and collaboration with the Yogyakarta Maritime College as a resource person in the activity. The targets in this community service activity are maritime-based Vocational High School teachers. The method used in this service activity is training carried out in three kinds, namely: lecture method, discussion and question and answer method as well as an evaluation method (Astriawati et al., 2021). The function of implementing evaluation in this service is to be able to illustrate the results of the implementation of training in terms of the services provided during the training program which can be used as a step to improve quality (Phillips & Phillips, 2016). According to Naylor et al., (2015) that evaluation assessment variables include implementation time, suitability of themes and materials, delivery of resource person materials, benefits of activities, and assessment of training implementation. An evaluation process that focuses on filling out questionnaires for each trainee. The assessment scale used for each variable in the evaluation of the implementation of the training program uses a scale value of 1-4 with a scale of assessment criteria described in Table 1 (Astriawati et al., 2021).

Table 1.	The scale of Assessment Criteria
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Number and	Criterian
Number scale	Criterion
1	Very Bad
2	Bad
3	Good
4	Very Good

The results of the evaluation was presented in a recapitulation table of the assessment of the implementation of the training, using quantitative data analysis based on the assessment that has been given by each trainee using the following equation (1).

Avorago -	Participant assessment scores	(1)
Average -	Maximum scoring score	

Equation (1) has several variables, namely the average, the participant's assessment score and the maximum assessment score. The calculation of the average value will provide a conclusion of information in the form of an average value obtained from the evaluation results of each variable. The participant assessment score variable is the accumulated value of each variable given by each trainee according to the scale of the assessment criteria. While the assessment maximum score variable describes the maximum value of the assessment according to the results of the recapitulation and will be presented in a graph that describes the percentage of the accumulated valuation of each variable. This step is carried out to describe the distribution of data used as a reference for the success of the training implementation. In addition, the evaluation results are also used as an indicator of the usefulness of training implementation for training participants.

#### **RESULTS AND DISCUSSION**

The implementation of community service activities is a form of the tri dharma of higher education which is one of the tasks of universities in disseminating knowledge and providing benefits to the community. This community service activity was carried out in the form of governance training for the development of high school management in the maritime sector which was held on 20-23 October 2021 at Tirta Kencana Hotel Jalan Ring Road East, Sunten, Banguntapan, Bantul with the number of trainees reaching 30 trainees.

The delivery of lecture materials was carried out as a step to provide a fundamental understanding related to the management of maritime school management, including related to the implementation of training activities including training and certification of Fishing Vessel Seafarer Expertise, Implementation of Education and Training for Seafarers of Fishing Vessels, Types of Training for Seafarers of Fishing Vessels, Implementation of Fishing Vessel Seaman Expertise Tests. This is done, as a basic provision of understanding for trainees to be able to manage maritime-based schools by industry needs. The presentation media is presented based on the information obtained at the observation stage. The description and illustrations of the substance of the material in the presentation media are arranged as close as possible to the implementation of applicable policies so that trainees can manage schools by applicable regulations. Documentation of the series of activities delivering basic theories can be described in Figure 1.



Figure 1. Delivery of Theory by the Service Team

In the implementation of the Maritime School Management Development training activities, discussion and question and answer activities are carried out which are oriented towards the material and practices that have been carried out previously. In addition, the questions asked by the trainees show the proactive attitude of the trainees in participating in the entire series of activities. Documentation of discussion and question-and-answer activities can be seen in Figure 2.



Figure 2. Discussions With Trainees

At the end of the training implementation, an evaluation process of training assessment is carried out. The assessment process is carried out by distributing an evaluation link to each trainee. The results of the assessment evaluation recapitulation describe all the variables assessed during the training process. An illustration of the results of the training evaluation recapitulation is described in Figure 3.

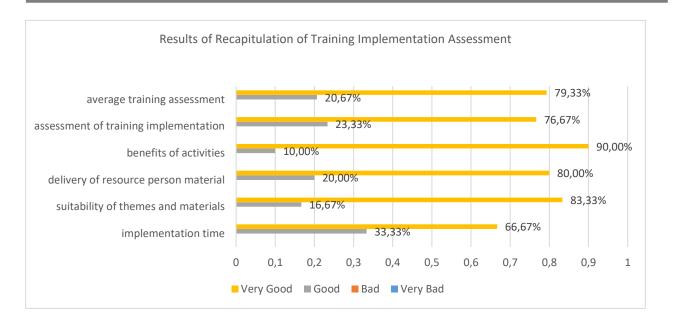


Figure 3. Graph of Results of Recapitulation of Training Implementation Assessment

The results of the assessment evaluation showed that for the evaluation assessment variable, the implementation time obtained excellent criteria of 66.67% and good by 33.33%. For the variable assessment of the evaluation of the suitability of themes and materials, it obtained excellent criteria of 83.33% and a good of 16.67%. For the assessment variable, the evaluation of the delivery of resource person material obtained excellent criteria of 80.00% and good by 20.00%. The variable assessment of the evaluation of the benefits of the activity obtained excellent criteria of 90.00% and good by 10.00%. For the evaluation variable, the assessment of the implementation of training obtained excellent criteria of 76.67% and good by 23.33%. With the average research, training obtained excellent criteria of 79.33% and good by 20.67%. Where the majority of trainees give an average assessment with a scale of 4 (four) on each assessment variable. This indicates the successful implementation of the training in the context of this community service. In addition, the results of the evaluation are also used as an indicator of the usefulness of the implementation of the service. The implementation of the Maritime School Management Development training as a Center of Excellence is very important to support the learning process as stated by Lund and Eriksen (2016) and Sabariah (2022) that good school management can improve the quality in the management of the educational process to achieve the goals that have been set, both short, medium, and long-term goals in supporting the learning process. In addition, according to Riswandi (2015), one of the efforts to create effective schools in schools is to implement comprehensive school management and develop a plan for the development of school work programs.

### CONCLUSION

The entire series of training activities have been completed under the previously established plan. Based on the results of the implementation of the activity, the level of enthusiasm of each trainee shows interest and interest in the field of training provided. This raises hopes regarding the contribution of training to increasing participants' knowledge in the field of training. The results of the evaluation assessment of the implementation of the training program showed high interest and enthusiasm from the training participants. The results of the service show that with this training, the centre of excellence of vocational education vocational schools that are increasingly relevant to the demands of community needs that are constantly changing according to the development of the business/industry world and can support the learning process regularly and continuously. The results of the evaluation results of the implementation of the training, it is hoped that training obtained an average score of excellent criteria of 79.33% and a good of 20.67%. After the training, it is hoped that training participants can hone their skills in developing maritime school management so as to create a maritime school that is in accordance with the demands and needs of the world of work.

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