The Implementation of Maritime Training Policy at Politeknik Pelayaran Barombong

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Abstract

Sea transportation is crucial for public activities and the distribution of goods in Indonesia, a country with many islands. The ever-evolving technology and international regulations require an increase in workforce competency and robust maritime industry. Maritime schools play a strategic role in preparing competent seafarers through comprehensive training. Indonesia has 11 official shipping schools, including Politeknik Pelayaran Barombong in Makassar, which follows the Ministry of Transportation's policies based on PM 70 of 2013 and other related regulations. Despite significant opportunities for seafarers to improve the global economy, maritime schools face challenges in producing graduates who meet industry standards. This research investigates the implementation, results, and obstacles faced by Politeknik Pelayaran Barombong in executing education and training policies, using qualitative methods. The findings indicate that while the quality standards at Politeknik Pelayaran Barombong align with international STWC standards, the implementation of these policies is suboptimal due to policy uniformity, weak support, and low knowledge among the target group. The impact of the implementation of training policy shows that 85% of graduates are absorbed into the maritime industry, with a maximum waiting time of 6 months. These results can help Politeknik Pelayaran Barombong evaluate the reasons why trainees' skills do not meet expected standards.

1. Introduction

Sea transportation is vital for supporting daily activities and moving goods, especially in Indonesia, a nation comprised of thousands of islands. Ships and boats are essential and

urgent commodities, as they constitute key elements of national development facilities and infrastructure (ERIA et al., 2022). Additionally, sea transportation boosts the ships and shipyard industry, which is an important sector with great potential for future development and expansion (Amira, 2018). This aligns with the governments initiative to introduce a highway from 2014 to 2019 with the goal of enhancing the transportation network through sea routes linking Indonesia islands (Adji, 2024). The objective is to position Indonesia as a central maritime and seafaring in the world.

The evolution of technology and the continual shifts in regulations have led to an increased need for improved skills and expertise within the industry (Almgren & Skobelev, 2020). Maritime schools play a strategic role in grooming skilled and dedicated future seafarers by offering thorough and up-to-date training programs (Caesar, 2023). The training policy at the maritime school is designed to meet the competency standards established by international organizations like the International Maritime Organization (IMO) and to comply with the Standards of Training, Certification, and Watchkeeping for Seafarers (STCW) convention (Maritime Professional Training, 2022). Moreover, the goal of high-quality training is to ensure safer sailing and to boost the operational efficiency of the ships (Sudewo, 2022).

According to the 2021 Seafarer Workforce Report by the International Chamber of Shipping (ICS) and the Baltic and International Maritime Council (BIMCO), 2.089 million seafarers are currently working on over 74,000 merchant ships worldwide. There is also a demand for 26,240 officer seafarers with STCW certification, and by 2026 (Srinivasan, 2021), it is projected that around 90,000 officer seafarer positions will need to be filled. Countries like Indonesia, Russia, the Philippines, India, and China are the top suppliers of seafarers at both the officer and rating levels. Among these, Indonesia stands out with great potential and opportunity to supply seafarers, especially at the officer level, where there remains a notable shortage.

The Director General of Sea Transportation of the Indonesian Ministry of Transportation reported that, as of June 2024, Indonesia has 1,487,102 seafarers. Among them, 129,001 hold various certifications, including 2,584 fishing vessel certificates, 12,348 competency certificates (COC/CC), 36,816 validation certificates (COE/CE), and 77,251 Certificates of Proficiency (COP/CP). From this pool of certified seafarers, 51,237 serve as officers and 92,645 as sailors in international seafaring, with the rest working in domestic seafaring (Direktorat Perkapalan dan Kepelautan, 2024).

Indonesia has 11 official maritime schools, including Politeknik Pelayaran Barombong in Makassar. Politeknik Pelayaran Barombong operates under the coordination of the Transportation Resources Development Agency (BPSDM) within the Indonesian Ministry of Transportation. Politeknik Pelayaran Barombong is dedicated to following the Ministry's policies to deliver top-quality education and training, thereby supporting the development of human resources in the transportation sector, particularly in seafaring.

Education and training policies in seafaring cover all aspects of maritime affairs, including manning, education, training, certification, authority, and the rights and obligations of sailors (Sarjito, 2024). These policies aim to provide maritime education that ensures sailors achieve specific levels of expertise and competence needed. For certifications, such as certificates of expertise, confirmation, and skills, are issued by the Director General.

Each maritime training program must meet high standards for facilities, equipment, education and training personnel, management, financing, graduate competencies, and educational assessments. Additionally, sailors must complete various training modules during their time at Politeknik Pelayaran to ensure they are well-prepared for their roles (Fatimah et al., 2023).

According to Biro Klasifikasi Indonesia, LLC (BKI), there are only 5,000 ships in Indonesia that are suitable for sea practice training, but many of these do not fully meet the needs of the crew. Meanwhile, conducting field practice on foreign ships presents considerable challenges. Compounding these issues is the generally low quality of teachers and the lack of essential infrastructure, such as deck and engine simulators (Sudewo, 2022).

Based on the phenomena described, it can be concluded that there are still significant opportunities exist for sailors within the industrial sector, particularly in contributing to the global economy through the distribution of goods and services via sea transportation. However, there are ongoing challenges in producing graduates who meet industry standards. Therefore, this study aims to explore and understand the obstacles faced by maritime schools, with a focus on Politeknik Pelayaran Barombong, in implementing education and training policies. The study is titled "The Implementation of Maritime Training Policy at Politeknik Pelayaran Barombong."

The research problem derived from the background study, which highlights that the needs of seafarers, especially on a global scale, are still not being fully addressed. The specific issues are outlined as follows:

1. How is the seafaring training policy implemented at Politeknik Pelayaran Barombong?

2. What are the results of implementing the seafaring training policy at Politeknik Pelayaran Barombong?

3. How does the implementation of the seafaring training policy at Politeknik Pelayaran Barombong affect the employment of its graduates in the industry?

2. Literature Review

2.1 Education and Training

Educational institutions are vital for gaining knowledge and broadening intellectual perspectives (Baporikar, 2016). A polytechnic, in particular, plays a key role in this process, helping individuals to acquire and deepen their understanding. It serves as a significant stage in education, focusing on nurturing individuals' potential in a positive direction and guiding them toward their goals, all while ensuring that each person's rights and aspirations are respected (Nadeem, 2024).

Higher education is quite different from elementary and secondary education in terms of teaching methods, techniques, and learning approaches. This shift can lead to changes in students' lifestyles, motivation, and learning independence (Rofi et al., 2023). To help students adapt effectively, it is crucial for higher education institutions and other involved

parties to provide robust support and engaging activities. Such support ensures that students can study effectively, graduate on time, and thrive in various campus activities (Fadli et al., 2024).

Learning is a process that transforms human personality, leading to improvements in both behaviour and personal capabilities (Baporikar, 2016). This transformation includes better skills, expanded knowledge, more refined attitudes, new habits, deeper understanding, enhanced cognitive abilities, and other competencies. Successful learning is often marked by noticeable changes in the participant. However, it's important to note that not every change in behaviour is a result of learning, as some changes may happen independently of the learning process (Widiastini, 2020).

Learning outcomes are an indication of how well participants have succeeded through the learning process, as measured by a final assessment. They serve as a key indicator of participants' abilities and their progress throughout the teaching and learning process. The effectiveness of this process is assessed based on whether participants demonstrate improvement in their skills compared to their levels before the training (Yasovianti, 2018). Learning outcomes show how well participants have grasped and understood the material, in line with the set standards (Alzizah et al., 2022; Yudiawan, 2019). These outcomes are heavily influenced by the quality and the learning environment provided by the instructor (Suhandi et al., 2013).

An essential skill for teachers or instructors is proficiency in learning techniques and evaluation. This expertise is fundamental to their role, as it involves assessing both the learning process and the outcomes (Uerz et al., 2018). Before carrying out a final evaluation, teachers should evaluate each stage of the learning journey. Assessment is a systematic and continuous process that helps determine quality based on established criteria and classifications, guiding effective decision-making (Maki, 2023). Based on this description, it can be concluded that education and training serve as a means to transform an individual's behaviours and actions, as well as to foster personal growth through the educational and instructional activities they undertake.

2.2 Policy

Policy involves a series of activities, actions, attitudes, or plans within a program (Vedung, 2017) and the outcomes that organization or institution will implement to address and resolve issues (Herdiana, 2018). Policy is crucial for achieving organizational goals. It consists of two key aspects: (a) Policy acts as a response to events, fostering harmony among stakeholders and encouraging cooperative behaviour among parties who work towards achieving goals, even if they encounter irrational treatment in the collaborative effort.; (b) Policy also functions as a social practice.

Policy is neither singular nor isolated. It is crafted by policymakers (government) as a response to events occurring within the society (Smith & Larimer, 2018). These events arise from the interconnected, inclusive, and interdependent nature of community life (Monica, 2022). Additionally, as Gusdiva et al. (2024) notes, policy serves as a central framework and foundation. It outlines the principles and guidelines for planning and carrying out the jobs, leading effectively, and managing operations to achieve the goals.

Public policy theory provides the conceptual and analytical framework needed to understand, explain, and analyze how public policies are made (Dunn, 2007). Policy is a decision aimed at solving a specific problem by implementing certain actions to achieve particular goals. This process is carried out by government institutions entrusted with the responsibility and authority to manage state functions and support national as well as to contribute to the community development (Henriyani, 2015).

Key elements of public policy are: First, it involves defining government actions. Second, it is carried out in a practical, tangible manner. Third, whether or not a policy is put into action, it is driven by specific goals and intentions. Fourth, public policy should always be directed towards enhancing the well-being of everyone in society, without exception (Herdiana, 2018).

2.3 Concept of Public Policy Implementation

In general, "implementation" as defined in the Big Indonesian Dictionary (KBBI) means putting something into action or carrying it out. This term is commonly linked to activities aimed at achieving specific goals, involving the execution of a well-prepared and detailed plan. Implementation takes place when a plan is fully developed and ready to be put into practice.

Henriyani (2015) describes implementation as involving various activities, actions, and procedures within a system. It's not just a series of activities; it's about carrying out planned activities with the goal of achieving specific objectives. This makes it a key stage in the public policy process. Suwestian et al. (2016) adds that implementation occurs after a policy has been clearly defined. It involves a series of steps aimed at delivering the policy to the community effectively so that it can achieve the desired outcomes.

Implementation is the stage where the goals of a program are put into action. It's crucial to focus and notes on how prepared the organization is for this process, which means carefully considering the chances of success or failure. This includes looking at any obstacles and opportunities that might arise, as well as assessing the capabilities of the organization or unit assigned to carry out the program (Chasanah et al., 2017).

From the description, it is clear that policy implementation will not take place, even when the objectives and targets are clearly defined, without the necessary political decision. Thus, implementation is a process involving multiple interested parties, working together to achieve results that align with the intended goals of the policy.

The concept of public policy implementation involves a series of steps and processes designed to put into action the policies established by the government or public institutions (Desrinelti et al., 2021). Policy implementation can be interpreted as the process of putting a policy into practice, resulting in actions, activities, and procedures that are systematically organized (Ramdhani & Ramdhani, 2017).

2.4 Concept of Maritime Training

The concept of maritime training in Indonesia is refers to the Regulation of the Head of the Transportation Human Resources Development Agency (BPSDMP),

No.PK.07/BPSDM-2016, which outlines the curriculum for education and training programs designed to develop and enhance competencies in the maritime sector. The curriculum offered includes the Maritime Competency Education and Training Program, as well as the Formation Education and Training Program, both of which are available through the formal education pathway of the Diploma IV in Maritime Transportation and Port Management.

As outlined in Article 5 of Government Regulation No. 2 of 1969, seafaring is categorized into three major groups (Prakoso, 2022):

a. Domestic seafaring, including both archipelago and local seafaring.

b. Overseas seafaring, covering near ocean seafaring, ocean seafaring, and exclusive seafaring.

3. Methodology

Research methodology are systematic, scientific approaches designed to gather data for a specific purpose. At their core, these methods reflect the scientific principles required to collect data aimed at achieving particular objectives and practical applications (Sugiyono, 2018). This study used a qualitative approach, aiming to understand social phenomena as they occur naturally. Qualitative research focuses on gaining a deep understanding, interpreting, and describing the meaning of these phenomena from the perspectives of the participants involved (Arsal, 2024).

The data sources for this study include primary and secondary data. In qualitative research, the researcher themselves serves as the main instrument of study. On-site data collection allows the researcher to gain an initial understanding or develop additional tools to better capture the experiences of informants involved in the implementation of maritime training policies at Politeknik Pelayaran Barombong. This process involves conducting interviews, using recording devices, taking notes, documenting activities with cameras, and utilizing other relevant tools.

The study used several data collection techniques, including interviews, observations, and documentation. The research was carried out at Politeknik Pelayaran Barombong in June 2024. The informants were 5 (five) person included instructors, teachers or lecturers, and managers at the institution, all of whom were involved in the implementation of maritime training policies and had knowledge into the outcomes and employment of graduates from Politeknik Pelayaran Barombong.

The data analysis process comprises three key stages: data reduction, data presentation, and drawing conclusions.

Table 1: Demographics of Respondents

No	Code	Education	Job Function
1	MA	Master Degree	Manager
2	AH	Master Degree	Junior Instructor
3	IR	Master Degree	Junior Instructor
4	CG	Master Degree	Lecturer
5	CD	Master Degree	Lecturer

Source: Author (2024)

4. Results and Discussion

4.1 The Implementation of Maritime Training Policy

The implementation of education and training policies at Politeknik Pelayaran Barombong is governed by several key regulations, including Law No. 17 of 2008 concerning seafarer. This law is further detailed by the Regulation of the Minister of Transportation No. PM 140 of 2016, which amends Regulation No. PM 70 of 2013 on certification training and seafarer's watch duties. Additionally, the Regulation of the Head of the Transportation Human Resources Development Agency No. PR-BPSDMP 01 of 2023 provides detailed guidelines for organizing seafarer education and training.

These policies cover a wide range related to maritime concerns, including manning, education, certification, and the rights and responsibilities of seafarers. The goal of maritime training is to develop specific skills and expertise, ensuring that individuals meet the competency standards required for obtaining seafarer certifications. Expertise certificates, confirmation certificates, and skills certificates are issued by the Director General.

To ensure high-quality training, each maritime program must adhere to rigorous standards. These include requirements for facilities and equipment, qualifications of instructors, management practices, financial provisions, graduate competencies, and educational assessment standards. Seafarers must also engage in various mandatory training activities during their time at the Maritime Polytechnic. Politeknik Pelayaran Barombong plays a crucial role in effectively implementing these policies, ensuring that all training programs meet the required standards.

The interviews were conducted with the implementers at Politeknik Pelayaran Barombong to gain insights into how education and training policies are put into practice. These interviews focused on several key areas: how the institution prepares for the training process, the curriculum they use, the facilities and infrastructure available, the methods of training employed, and the role of BPSDM in the training programs, as well as the available human resources, the results of the training policies, and how well these policies are integrated into the maritime and seafarer industry.

From the data reduction of the interview analysis, it is clear that before participants can attend the training at Politeknik Pelayaran Barombong, they must go through a registration process first and secure approval from the Director General of Shipping and Marine Affairs. Moreover, they are required to be supervised by the Development Agency of the Transportation Service under the Ministry of Transportation of Indonesia. This process is designed to ensure that only those who have been officially recognized as eligible by the Director General's decree are permitted to participate in the training.

When it comes to implementing the seafarer training policy at Politeknik Pelayaran Barombong, careful planning and preparation are essential. Before participants even start their training, all necessary facilities and infrastructure are prepared in advance. This includes organizing learning schedules, designing the curriculum, and providing lecturing materials, participant equipment, practice resources, training tools, simulators, and laboratories. Additionally, the availability of lecturers and instructors is carefully aligned with the specific needs of the training programs, ensuring that everything runs smoothly and effectively once the training begins.

This suggests that the implementor at Politeknik Pelayaran Barombong has effectively planned and executed the process of implementing training policies. As highlighted by Desrinelti et al. (2021) also Ramdhani and Ramdhani (2017), implementation public policy involves a series of carefully coordinated steps and processes designed to bring government or institutional policies to life. In essence, policy implementation is about transforming a policy into actionable steps. This process results in tangible outputs, such as actions, activities, mechanisms, and procedures, all of which are systematically organized within a structured system (Saleh, 2015).

To ensure that the seafaring training policy meets the needs of both the industry and stakeholders, the curriculum for seafarer skills training is designed in accordance with Regulation KABADAN PK 09 of 2018, which was recently updated to the Regulation of the Head of the HR Development Agency No. 03 PPSDMP in 2023. These regulations provide clear guidelines for developing and implementing skills training programs. The curriculum itself is modelled after the International Maritime Organization (IMO) course, which is recognized globally.

Furthermore, the curriculum is not static; it is regularly reviewed and updated to keep pace with the changing demands of the industry. This ongoing evaluation involves input from a broad range of stakeholders, including industry professionals, administrators, and alumni who are currently working in the field. Their feedback is gathered through Focus Group Discussions (FGDs), which are held at least once a year to ensure that the curriculum remains relevant and effective.

According to Herdiana (2018), implementation of a policy is a way of responding to events and fostering collaboration among all involved parties. This approach emphasizes the importance of integrating the needs and expectations of both stakeholders and administrators, ensuring that the curriculum is aligned with the skills demanded by the industry. At Politeknik Pelayaran Barombong, this collaborative approach has been a key part of the process, with active involvement from stakeholders in the implementation of the seafaring training policy.

This vocational training program focuses more on hands-on experience than on theoretical instruction, aiming to significantly boost the skills and abilities of its participants. It is designed to ensure that graduates meet international standards and are well-prepared to meet the needs of the industry and stakeholders. To support this practical approach, the program is backed by extensive and state-of-the-art facilities and infrastructure.

Focusing more on practical experience rather than just theoretical instruction can greatly improve students' skills. Saleh (2015) highlights that effective maritime training combines theoretical knowledge with hands-on practice in laboratories or simulators. This means that when participants get the chance to practice on real ships, they can immediately take the seafarer's skills test without needing to go over theoretical content again. The extensive practical experience ensures they develop the essential skills and competencies required. This approach supports one of the main objectives of training: enhancing knowledge and skills through a deep understanding of both cognitive and practical aspects (Setiowati, 2015).

The implementation training policies at Politeknik Pelayaran Barombong are effectively supported by a strong emphasis on practical experience, which makes up about 60-70 percent of the program, compared to theoretical instruction. This focus on hands-on learning is made possible by the institution's numerous of facilities, including simulators and laboratories. These resources offer valuable hands-on practice which prepared for the participants so they can take their skills to the real-world scenarios aboard ships.

Politeknik Pelayaran Barombong adheres to high-quality standards that match international benchmarks, that is the STCW (Standards of Training, Certification, and Watchkeeping). This standard ensures that seafarers are well-trained and equipped to handle future challenges in the seafaring industry. Graduates from the maritime training program at Politeknik Pelayaran Barombong are expected to reach a competency level of 95 percent by the end of their training. The institution also follows ISO 9001:2015 standards for its Standard Operating Procedures (SOPs), ensuring that all staff and resources are adequately skilled to maintain consistency between the desired outcomes and actual results.

The maritime training policy implementation has thoughtfully anticipated a range of possible outcomes, including both successes and challenges, as well as existing obstacles and opportunities, while also considering the capabilities of the organization responsible with running the program (Chasanah et al., 2017). To ensure the program's effectiveness, an annual audit is carried out. Moreover, BPSDM places a strong emphasis on safety, continually reminding and guiding efforts to prevent and minimize work accidents for participants who are practicing aboard ships.

4.2 The Results of the Implementation of the Maritime Training Policy

The effectiveness of a policy's implementation, often termed as implementation performance (Henriyani, 2015), is measured by assessing the results it produces, whether through its outputs or outcomes. Interviews with informants MA, CG, AH, IR, and CU highlighted that the curriculum and instruments employed are aligned with international standards, specifically following the International Maritime Organization (IMO)

guidelines. These guidelines cover comprehensive aspects of planning, response, and management of oil spills at sea.

The instruments used adhere to Standard Operating Procedures (SOPs) that meet quality standards such as ISO 9001:2015, ISO 37001:2016, ISO 45001:2018, and the Standards of Training, Certification, and Watchkeeping (STCW). Furthermore, the maritime training is supported by highly comprehensive and well-equipped facilities, including simulators and laboratories. However, despite these robust resources, a notable number of participants continue to graduate with results below 70 percent, with some needing to retake exams one or two times without passing.

Interviews indicate that the target competency level for seafaring skills among participants in the Maritime Polytechnic training is 95 percent upon program completion. However, the minimum requirement for passing the exam is set at 70 percent. Despite this lower threshold, the goal of achieving the desired competency level has not yet been fully realized.

The implementation of management systems and quality standards serves as the foundational basis for maritime training, aiming primarily to enhance seafarers' skills (Saleh, 2015). However, participants may encounter challenges, such as the need to adapt to a new culture of disciplined learning, which may contrast with their prior experiences. On top of that participants need to get used to adjusting to the use of English in the training environment which can require considerable time and effort (Arifin, 2021).

Therefore, the implementation of the maritime training policy at Politeknik Pelayaran Barombong appears to fall short of the intended effectiveness, as indicated by exam performance where participants are expected to meet either a 70% or 95% competency threshold. Henriyani (2015) suggests that such shortcomings in policy implementation can arise from factors such as a lack of policy diversity, inadequate support, and insufficient knowledge among the target group.

4.3 Career Impact and Absorption Rate of Maritime Training Policy Implementation

A key element in evaluating the effectiveness of a policy is by assessing its impact. The interviews about the results and integration of graduates from the maritime training policy indicate that Politeknik Pelayaran Barombong has successfully established the BMP (Barombong Maritime Polytechnic) Manning Agency. This agency is recognized as a leading, reliable, and independent entity that competes on a global scale within the maritime industry. BMP Manning Agency stands out as the only seafarer crewing agent affiliated with the UPT BPSDM Transportation of Politeknik Pelayaran Barombong, responsible for recruiting seafarer crews for both domestic and international voyages.

Additionally, alumni from Politeknik Pelayaran Barombong have secured prominent positions with reputable maritime companies. For instance, in 2022, some alumni were employed by Pos Logistik Berhad Malaysia. In 2023, they served on the MV Green Anakoski in various roles such as officers, oilers, and deck cadets. Other alumni took positions at Seacon Ships Management Europe S.A., working as third engineers, ordinary seamen, and deck and engine cadets on the MV Green Helsinki. In the same year which in

2023, alumni were onboard the MV Green Rauma as second officers, ABs, chief cooks, deck cadets, and engine cadets. Furthermore, alumni have held positions on the Bulk Carrier Ship MV Great Qin and on the Zhousan Anchorage in China as officers in 2024 (Adminbmp, 2024).

Interviews also reveal that Politeknik Pelayaran Barombong's maritime training policy has a significant impact, with approximately 85 percent of graduates successfully entering the maritime industry. Graduates typically experience a maximum waiting period of about six months before securing employment. However, detailed data on how many graduates are absorbed into domestic versus international shipping roles was not available, as the tracer study data was not up-to-date.

5. Conclusion

The implementation of the Barombong maritime training policy begins with several key preparatory steps. This process involves registering and obtaining approval for all participants from the Director General of Transportation and Maritime Affairs. Furthermore, it encompasses the development of the curriculum, the provisioning of necessary facilities and infrastructure, the selection of effective training methods, the clarification of BPSDM's role in the training process, and the alignment of human resources to meet training requirements.

The outcomes of the implementation of training policy have not fully met expectations. Some training participants have demonstrated competency and skill levels below the required 70% as indicated by the assessment instrument, and 95% as noted in the interviews.

The impact and absorption rate of graduates from the training program stand at 85%, with most participants securing employment in both domestic and global seafaring sectors within less than 6 months.

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