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THE DEVELOPMENT OF FUTURE SEAFARERS' INQUIRY SKILLS AT ENGLISH LESSONS

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Abstract. *This study examines the role and significance of an inquiry-based approach in the development of professional skills and abilities among future seafarers. The practical implementation of the fishbone diagram strategy in the context of the ESA lesson format is described in detail, with specific examples provided. The teacher's role in facilitating the professional development of future marine engineers is emphasized.*

Keywords: *inquiry-based approach, fishbone diagram, future seafarers, engage-study-activate lesson format.*

Introduction. Inquiry-based learning is based on the inquiry process that includes gathering facts and observations and using them to solve problems. It is not new and well-known to every teacher who wants to make the learning process more engaging and active. This concept is not new and is well-known to many teachers who are looking to enhance the learning process through greater engagement and activity.

The name of the approach speaks for itself. It is based on the inquiry process, which involves gathering facts and observations and using them to solve problems. (Khan, 2020) It is reasonable to assume that this encourages cadets to explore the English language professional content by answering high-level questions. These are the questions that designed to trigger cadets' curiosity and stimulate critical thinking.

This approach includes a wide range of learning strategies. This paper presents the use of fishbone diagram as a tool to stimulate interest, self-awareness and critical thinking in the context of inquiry-based engineering education. So, the **objective** of this study is to illustrate how the use of a fishbone diagram can facilitate the development of critical and creative thinking skills in future seafarers.

Main part. A fishbone diagram (FBD) is also known as a cause-and-effect diagram, which is a widely used tool in both learning and working environments for identifying solutions to emerging problems. So, being competent in this type of activity (having suitable skills, knowledge,

experience, etc.) can be very helpful, particularly when discussing workplace issues within a team. (Guo, Lu, 2011)

As a problem solving technique designed to help identify the problem's root cause, fishbone diagram is considered to be an efficient way to brainstorm in a complex environment, such as those with multiple unknown variables. A visualized fishbone-type mind map template is an effective tool for categorizing potential causes of a problem. The head of the fish represents the primary issue. The bones represent the various causes that could be contributing to this problem. The backbone serves to connect all the bones to the head.

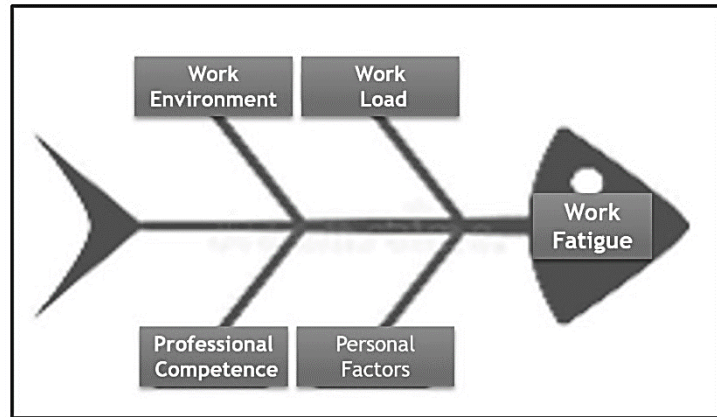
There are different types of FBDs, as well as a great number of their modifications. A simple diagram is represented by a basic set of components, so-called sufficient minimum. We have practiced it with the fourth-year cadets on the topic *Workplace Fatigue* (module 1 – Engine Room Watchkeeping). The above approach was employed at the Engage stage of the ESA (Engage-Study-Activate) lesson format, which is typically recommended for senior cadets. A group brainstorming session was initiated with the objective of generating suggestions regarding the potential causes of work fatigue in the engine room.

The manner in which a question is posed to a cadet will determine the skills they will employ. The key objective is to facilitate the cadets' cognitive processes by posing questions and guiding them in the development of critical thinking skills, rather than simply imparting information. So, while guiding cadets through inquiries the main thing is to help them in *how to think* instead of *what to think*. The ability to ask applicable questions is perhaps the most crucial skill of an effective teacher. (Mathis, 2015)

The best way is to pose open-ended questions. According to researchers, open-ended questions encourage respondents to provide more detailed responses. These higher-level thinking questions typically begin with the words *What*, *Why*, and *How* as well as *Tell me*, *Explain*, *Compare* and *Describe*. They are designed to elicit the respondents' knowledge, opinion or feelings. The selected wording will determine the level of cognitive engagement required of cadets. As an example, the following questions may be posed in relation to the topic under discussion: *What does the well-being of seafarers on board a ship depend on? In your experience, what are the main reasons for fatigue among engine room crew members? When do you feel most comfortable and happy at work? How did you like your workplace on ship? How did your crew members treat you? How does experience affect how quickly work is done? How did most experienced seafarers feel on the ship? What bored and tired you most on the ship? What do you think was the most exhausting thing on the ship? And what made tired your crew members?*

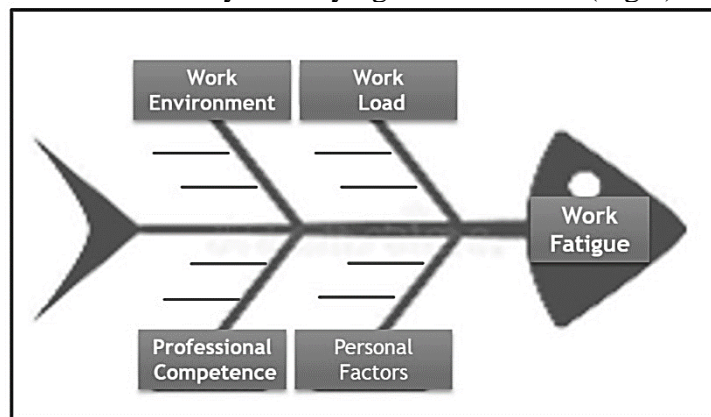
Once completed, the diagram appeared as follows: the head of the fish represented a stated issue, namely *Work Fatigue*, with four fish bones indicating the most probable causes of the problem, as proposed by the cadets: *work load*, *work environment*, *professional competence*, and *personal factors*. (Fig.1) This might be enough for the Engage stage.

Fig.1 Work Fatigue fishbone diagram (simple version)



However, the *Work Fatigue* FBD can be used again during the Activation stage to further investigate the causes of fatigue after reading or watching the relevant material. First, the group discussion can be initiated with the objective of identifying the four the most generic factors of fatigue in the engine room. Then, in four subgroups, each factor is explained in more detail. In other words, the causes are clarified by identifying the subcauses. (Fig.2)

Fig.2 Work diagram (more version)



Fatigue fishbone complicated

The findings of the discussions on work fatigue are depicted graphically by labelling the ribs added to the fish bones. If cadets are confused about the assignment, they can use a support box with key phrases which the teacher deems appropriate. These can be: *work related / non work related factors, overwork, sleep disorders, heavy workload, lack of experience, insufficient rest, work intensity, bad fatigue maintenance, lack of knowledge, etc.*

An alternative approach would be to perform the activity in reverse order. If the ready-made diagram is available on the internet, it can be utilized. Cadets are asked to analyze the completed diagram and decide what problem can arise under given factors. The problem itself is not explicitly stated. It must be formulated and justified by the cadets. The most appropriate answer is recorded on the head of the FBD.

Conclusion. FBD method is not solely about the cadets' abilities to think critically and creatively. Moreover, it is about teachers who are resourceful and inventive. To avoid having false

expectations of complete success, it is important to understand that the key to successful language learning is not the technical issue.

The key factor is a person's mindset, which is reflected in his positive attitude and motivation. A significant proportion of practicing teachers believe that the primary obstacle to learning is not the lack of resources, but rather the lack of motivation among learners. Learning occurs when people want to learn. Therefore, the primary objective should not be to teach English per se, but rather to facilitate the learning process by engaging learners.

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HARD AND SOFT SKILLS IN LEARNING ENGLISH BY MARINE ENGINEERS

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Abstract: *This article delves into the necessity of attentive attitude to both hard and soft skills in the learning process of English language acquisition among marine engineers. It explores the unique priorities of both hard and soft skills acquiring for the further professional growth of future marine engineers and makes emphasis on fostering their effective integration. It asserts that integrating hard skills such as analytical reading and writing with soft skills such as critical thinking and creativity fosters a holistic approach to language learning.*

Key words: *marine engineers, maritime English, hard skills, soft skills.*

Multiple maritime sphere professional case studies prove the crucial importance of English for global marine communication, ensuring safety and efficiency among crewmembers, port authorities, and during international shipping operations. Adherence to international maritime regulations, including those set by the IMO, mandates English communication for safety, security, and environmental protection. In emergencies at sea, English proficiency is vital for coordinating rescue operations and dealing with onboard emergencies promptly and accurately. [1]

A number of researchers (Colzi G., Giannoni M., Kons S., Laker D., Manullang B., Powell J., Torre T. and others) consider both hard and soft skills in English to be the cornerstone of seafarers proficiency. They emphasize, when future marine engineers learn English, both “hard” and “soft” skills play a decisive role in achieving a professional level. [2, 3, 5, 6, 7]

According to Laker D., Powell J., Torre T., Giannoni M., and Manullang B. hard skills refer to the technical aspects of language acquisition, such as grammar rules, maritime professional vocabulary, and pronunciation. These skills provide the foundation for understanding and constructing sentences accurately. [2, 3, 7]

On the other hand, soft skills, as Raunek K., Robles M., Schulz B. certify, encompass interpersonal and communicative abilities, such as active listening, empathy, and cultural awareness. [4, 5, 6] These skills enable learners to effectively engage in conversations, understand nuances in codified marine engineering language use, and adapt their communication style to different contexts and audiences.

The relevance of hard of future marine engineers’ skills lies in their contribution to linguistic accuracy and fluency. Mastering grammar rules and expanding marine engineering vocabulary enhances comprehension and enables learners to express themselves more precisely. Similarly, soft skills are essential for building confidence, fostering meaningful interactions, and navigating cultural differences in language use.

The statement of purpose for this article is to discuss the priorities of both hard and soft skills for effective English language acquisition among marine engineers and make emphasis on their integration.

In the context of English learning for marine engineers, hard skills encompass a range of technical language competencies essential for effective communication and comprehension within the maritime industry. These hard skills includes several domains of terminology.

Technical terms for engines, propulsion systems, and safety equipment facilitate clear communication among crewmembers and with shore-based personnel. Understanding and applying regulatory compliance language of international maritime regulations and conventions necessitate familiarity with safety, security, and environmental regulations, as set forth by organizations like the International Maritime Organization (IMO), requires the ability to comprehend and apply regulatory language accurately.

To be successful in troubleshooting, maintenance procedures, and equipment repairs, ensure safe and efficient operation of maritime systems marine engineers must apply knowledge of technical documentation vocabulary, accurate comprehend instructions, diagrams, and specifications.