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**Educational video about how to
prevent
infection in cargo ship for marine
professionals**

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ABSTRACT

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Cargo ships are essential to international trade and transportation because they make it easier for products to be transported throughout the globe. They are essential for maintaining the supply chain of various products, including essential goods like food, medical supplies, and energy resources.

Cargo ships have a big influence on infection control and health, as seen by the way they keep essential supplies of products flowing during health emergencies, but they also pose a danger for spreading illness. Professionals in the maritime industry should thus be aware of these possible hazards.

The purpose of this project is to create an instructional video resource that will educate maritime professional on how to prevent the spread of infection during the pandemic. The project's goals are raising awareness about preventing infection during the pandemic and it seeks to increase their knowledge, promote behaviour change, and reduce infection risks among them.

The video illustrates infection prevention practices on cargo ships and is directed towards maritime professionals, focusing on the proper hand hygiene. The content of the video aligns primarily with the guidelines and recommendations of two key organizations in the context of infection prevention, the World Health Organization (WHO) and the International Maritime Organization (IMO). The video has undergone revisions based on feedback to ensure its effectiveness and accuracy in promoting infection prevention measures within the maritime industry. Collaborating with the maritime logistics research center project known as DESSEV, this endeavor focuses on the development of a decision-support system aimed at mitigating pandemic-related risks aboard seagoing vessels.

The Keywords on this project would be endemic, epidemic, pandemic, outbreak, Infection prevention, hand hygiene, coughing technique, maritime professionals, cargo ship and educational video.

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1 INTRODUCTION

Cargo ships are vital for global trade, ensuring goods flow smoothly across oceans. Preventing infections on these ships is crucial for trade, crew safety, public health, and compliance and not only essential for the continuous flow of global trade but also for protecting the well-being of crew members, upholding public health, complying with international regulations, and maintaining the stability of economies. It keeps trade flowing, protects crew, and maintains health guidelines (The pandemic economy's latest victim? the lowly shipping container, 2021).

Our target group are maritime professionals in the cargo ship and this is important to remember that main reference for getting instruction and guidelines is from IMO (The international maritime organization) and WHO (The world health organization).

Co-partner for this project is DESSEV (maritime logistics research centre project), it is a decision-support system for the risk of pandemic issues aboard on seagoing vessel (DESSEV, 2022).

The importance of project is to provide maritime professionals with the information and abilities require for protecting individuals against infections like Covid-19 (Maritime Health Trainings for Seafarers and Doctors, 2020).

The purpose of this project is to create an instructional video resource that will educate maritime professional on how to prevent the spread of infection during the pandemic.

The project's goals are raising awareness about preventing infection during the pandemic and it seeks to increase their knowledge, promote behaviour change, and reduce infection risks among them.

As nursing students working on this project, gaining valuable insights into infection prevention, sources of infections, and personal hygiene practices while creating the video are another objective of this project.

2 THEORETICAL BACKGROUND

Theoretical background plays a pivotal role in research as it provides the essential framework upon which the study is constructed. Central to this framework are key concepts, which are the fundamental and defining elements that underpin the research.

A key concept is a fundamental idea or principle that forms the foundation of a particular field of study or area of knowledge (Collins Dictionary, 2023).

The subjects or elements that we are describing in our project, which are known as key concepts are endemic, epidemic, pandemic, outbreak, infection prevention, hand hygiene, coughing technique, maritime professional, cargo ship and educational video. In below there are short explanation of each word.

2.1 Endemic, epidemic, pandemic

Endemic describes the continuous existence or typical prevalence of a disease or infection within a particular geographical region or population. It is an expected and relatively stable occurrence (Endemic definition & meaning, 2023).

The term "endemic" describes the ongoing occurrence of an illness or infection within a certain community, demographic, or geographic area. In other words, when a disease is endemic, it has a reasonably consistent and predictable degree of recurrence within a certain location or group of individuals over an extended period of time. On the other hand, an epidemic is defined as an unexpected and widespread outbreak of a disease that exceeds expectations. For example, malaria is considered endemic in many parts of sub-Saharan Africa, it means that it occurs at consistent levels throughout the year and is not limited to sporadic outbreaks (Centers for Disease Control and Prevention, 2020). Similarly, the common cold is endemic in most regions, as it circulates within communities year-round (What Is an Endemic Disease?, 2022).

Epidemic defines an unexpected and extensive illness spreading that affects a higher population than normal in a particular community, area, and duration (Epidemic definition & meaning, 2023).

Epidemics are defined by the fast and widespread spreading of illness from person to person. This fast transmission can cause a rise of cases in a very short period. Epidemics are often transient events. They have beginning and finish point. The epidemic is regarded to have ended when the number of cases begins to fall and returns to a more average or expected level (Transmission of SARS-CoV-2: implications for infection prevention precautions, 2020)

Epidemics are a major public health concern because they can cause increased sickness, mortality, pressure on healthcare systems, and social and economic disturbances. Controlling and managing epidemics frequently necessitates collaborative efforts from public health officials, healthcare professionals, and the community (Epidemic, Endemic, Pandemic: What are the Differences?, 2023).

Many pandemics are caused by novel pathogens, which means they are new to the human population and have the potential to spread easily because people have little to no immunity against them. Examples include the 1918 influenza pandemic H1N1 virus (Mayo Clinic, 2023). The 2009 H1N1 influenza pandemic, and the COVID-19 pandemic, caused by the SARS-CoV-2 virus (Pandemic, 2023).

Pandemic happens when an outbreak spreads across numerous nations and regions. It indicates a worldwide outbreak of a disease, often with significant public health implications (Pandemic definition & meaning, 2023).

In pandemic more people are impacted, and more lives are lost. The Covid-19 was classified as a pandemic by the World Health Organization (WHO) after it became evident that the sickness was severe and rapidly spreading across a vast region.

A pandemic involves several phases, each with unique characteristics.

2.2 Outbreak

Outbreak represents the incidence of a certain illness in a population or location during a given time that is higher than what is typically predicted (Outbreak definition & meaning, 2023).

The term "outbreak" is often used to describe sudden or unexpected occurrences of infectious diseases. Several things that might lead to outbreak,

including environmental conditions, changes in population dynamics, the emergence of new pathogens, and failures in disease control measures. Outbreaks can range in size from a few cases to thousands or even millions of cases, and they can have significant public health, social, and economic impacts (Disease Outbreak News, 2023).

2.3 Infection prevention

Infection is used to describe the entry and growth of microorganisms like viruses, bacteria, or fungus that cause infection or sickness inside the body (Infection types, 2023).

Infection is a process in which a pathogen (e.g., virus, bacteria, fungus, or parasite) enters and invades a host organism, leading to disease or illness. The pathogen can cause damage to the host by directly attacking cells or by releasing toxins that damage tissues. The host's immune system responds to the infection by mounting a defence, which can include inflammation, fever, and the production of antibodies.

According to the center for disease control and prevention (CDC), contamination of food, drink, or surfaces can spread illnesses in a variety of ways, such as by contact with an infected individual. The symptom of an infection is different and based on the kind of pathogen involved in the body, can cause a disease (How Infections Spread, 2016).

2.3.1 Hand hygiene

The practice of keeping hands clean to stop the spread of pathogenic organisms, illnesses and infections is known as hand hygiene. It includes fully washing hands with soap and water for at least 20 seconds or sanitizing them with hand sanitizers that include alcohol in order to get rid of or minimize the presence of dangerous organisms including viruses, bacteria, and other diseases (When and How to Wash Your Hands, 2022)

The World Health Organization (WHO) states that maintaining good hand hygiene is essential to stop the spread of illnesses in daily activities. Maintaining good hand hygiene decreases the chance of contracting diseases,

improving personal health and having a major impact on public health outcomes (World Hand Hygiene Day 2023, 2023)

2.3.2 Coughing technique

The concept of coughing technique describes a way to cough that reduces the amount of airborne particles and possible infections that enter the environment. In order to minimize the spread of particles during coughing, it involves covering the mouth and nose (Coughing and Sneezing, 2023) Health organizations such as the World Health Organization (WHO) and the Centres for Disease Control and Prevention (CDC) generally prescribe certain coughing techniques, such as using a mask, tissue or elbow, and proper disposal (Advice for the public on COVID-19, 2023)

2.4 Maritime professionals

Maritime Professional are an individual who works in the maritime industry, which includes various roles such as sailors, ship operators, navigators, engineers, and other personnel involved in activities related to ships, ports, and the marine environment. In addition to equipment maintenance, they are in charge of ensuring the ship operates safely. A variety of specialists, such as deck officers, engineers, electricians, workers, and medical staff, may make up the crew. Maritime crew members are professionals who work on ships and other vessels that operate on the water, and their employment is governed by various international regulations and guidelines aimed at ensuring their safety, well-being, and proper working conditions (Maritime Definition & Meaning, 2023).

2.5 Cargo ships

Cargo Ship is a type of vessel designed for transporting cargo, goods, or freight across water bodies, typically oceans and seas. Cargo ships come in various sizes and types, facilitating global trade and the movement of good. These

ships range in size and capacity, from small coasters that transport products between nearby ports to enormous container vessels that can carry thousands of containers. Cargo ships play an important role in global trade since they transport vast majority of products exchanged worldwide. They convey a diverse range of items. The number and kind of experts on board a cargo ship is governed by a variety of factors, including the ship's size and type, the type of goods being transported, and the legislation and norms controlling the ship's operation (What are Cargo Ships?, 2022).

2.6 Educational video

Educational Video is a video created with the primary purpose of educating or instructing viewers on a specific topic, concept, or skill. Educational videos are often used for learning and informational purposes. Educational videos can cover a wide range of subjects and can be used for various purposes, including formal education, professional development, or personal learning (Cynthia j. Brame, Effective Educational Videos, principles and Guidelines for Maximizing Student Learning from Video Content, 2016).

In the context of project tasks related to creating educational videos, it's essential to carefully consider what makes a good educational video.

Educational videos play a crucial role in delivering information, teaching new skills, and engaging learners. Their effectiveness can greatly impact the learning experience (Cynthia j. Brame, Effective Educational Videos, principles and Guidelines for Maximizing Student Learning from Video Content, 2016).

A successful educational video begins with clear learning objectives. Before making the video, it should be clear what the viewer expects to learn or achieve by viewing it. These goals direct the video's content and structure. The viewer's attention should be captured and maintained in educational videos. Engaging images, real-world examples, and methods of storytelling can help to make the material more engaging and relevant to the target audience (Effective Educational Videos, 2017).

It is important to consider the proper length for the target group of audience. The majority of educational videos are more successful when kept relatively

around 5–15 minutes to avoid viewer get tired, while some topics may need longer time for videos. Another critical component is ensuring that the video is accessible to a varied audience. This involves offering subtitles or transcripts for persons with impairments or who speaks in a different language, as well as using clear, easy-to-read styles of writing. The video's production quality should also be taken into account. This includes aspects such as high audio quality, clear graphics, and natural editing (Effective Educational Videos, 2017).

2.7 Previous research and project

There are some projects and studies have been done related to prevention of infection and we studied them to understand them and then make a video script based on them.

The safety webinar was recorded in 2019, hosted by the Centers for Disease Control and Prevention (CDC), discussing influenza-like illness (ILI) outbreaks on cruise ships and strategies for preventing and controlling these outbreaks. . The webinar features a panel of experts who share their experiences and insights on ILI outbreaks on cruise ships, including the challenges of identifying and diagnosing ILI cases and the importance of implementing effective infection control measures. The panelists also discussed the role of public health authorities in responding to ILI outbreaks on cruise ships and the need for close collaboration between cruise lines and public health agencies. The mentioned educational video has discussed about cruise ships transport, which are more focused on safety because of the amount of passenger and personnel and is different than Cargo ships, but the video is an educational resource that aims to raise awareness among line operators, public health officials, and other stakeholders about the challenges of preventing and controlling influenza-like illness (ILI) outbreaks on cruise ships. The video provides insights and recommendations from a panel of experts on how to identify and diagnose ILI cases, implement effective infection control measures, and collaborate with public health authorities in responding to ILI outbreaks (Influenza-Like Illness (ILI) Management, 2013).

Maritime health E-learning is another online training program developed by the World Health Organization (WHO) and the International Maritime Health Association (IMHA) to provide education and training on a wide range of health topics related to the maritime industry. The program is designed to improve the health and well-being of seafarers and other maritime professionals by providing access to high-quality, evidence-based information and training. One of the modules included in the program is focused on infection prevention and control. The module provides information on the common infectious diseases encountered on board ships, the risk factors for infection, and the strategies for prevention and control. Along with these subjects, the module includes cleansing and disinfection, respiratory hygiene, hand hygiene, and personal protection equipment (E-Learning, International Maritime Organization, n.d.).

3 PURPOSE AND OBJECTIVES OF THE PROJECT

This project aims to produce an educational video resource that instructs maritime professionals on preventing infection spread during the pandemic. The project's goals are raising awareness among maritime professionals about infection prevention during the pandemic. It also aims to enhance their understanding, promote behaviour change, and reduce infection risks within this group (How COVID-19 is impacting seafarers, 2019)

Another objective for us as a nursing student is what we are going to learn during making the video, such as importance of Infection Prevention, sources of Infections and personal Hygiene Practices (Infection prevention and control global, 2023)

4 IMPLEMENTATION PLAN

In this project the educational video is based on international convention on STCW (Standard of training, Certification and watchkeeping for seafarers). STCW states that “countries are required to achieve or surpass the minimum criteria set out by the Convention for seafarer training, certification, and watchkeeping” (International Convention on Standards of Training, Certification and Watchkeeping for Seafarers, n.d.).

4.1 Description of target group and co-operation partner

The focus of our project is to produce of an educational video for marine professionals working on cargo ships. The number of crew members on board on cargo ship can vary significantly depending on factors such as the ship's size, type, cargo capacity, transport duration, and operating requirements. Smaller cargo vessels may have a crew of 10-15 people, but bigger vessels may require the coordination of several members (What are Container Ships, 2022).

Co-partner for this project is DESSEV (maritime logistics research centre project), it is a decision-support system for the risk of pandemic issues aboard on seagoing vessel. The DESSEV project is “being co-funded by the Erasmus program of the European Union with the total budget of 250,000 euro from 2022 until 2024, which supports research and innovation projects.” The system will use data and analysis from a range of sources, including public health authorities, shipping companies, and other stakeholders, to provide real-time risk assessments and recommendations for action. (DESSEV, 2022).

Seven organizations from six different European nations collaborated on the DESSEV project, which had the objective of developing and building a decision support system specifically for maritime decision makers. In the case of an epidemic breakout, this system is intended to offer helpful advice (Dessev project, 2023)

4.2 Literature retrieval

While gathering information, references, and resources, we discovered a wealth of data concerning Covid-19, its symptoms, other infections, and strategies for prevention and care. It is especially significant for our project, which pertains to maritime professionals and the prevention of infections during pandemics.

Covid-19, the most recent pandemic, has been extensively studied in various evidence-based sources, articles, and dictionaries. To compile our information, we searched through reputable sources such as PubMed, NCBI, WHO, CDC, textbooks like dictionaries, and Google Scholar and Google translator. Our project focuses specifically on maritime and cargo ships, with materials sourced from organizations like the International Maritime Organization (IMO) and Finnish resources like maritime logistics materials (Etusivu - Merilogistiikan tutkimuskeskus, 2023)

Also, in the databases mentioned, we can discover valuable maritime-related information, particularly relevant due to SAMK's (Satakunta ammattikorkeakoulu) significant marine studies program. Finland stands out not only as a maritime powerhouse but also as an example in infection and disease prevention (Finnish Maritime Cluster, n.d.).

4.3 Description of methods

The method of this project is waterfall. This methodology is a linear approach for project and is best suited for those projects which are clearly defined and the process follows a structured approach. In this method all the steps are in order after each other and it includes planning, design, development, implementation, testing and deployment which is last stage and means released to the users (What Is Waterfall Methodology?, 2023).

4.4 Resources and risks

The instructional video is based on online available materials and sources on websites such as Merilogistiikka, IMO, WHO, IMHA, Theseus, Wikipedia and Samk's Webinar (Astu terveysturvalliseen laivaan -webinaari, 2022).

The risks are accuracy and quality issues. We are very aware that an educational video should be accurate and well-made. However, it can be difficult to ensure the accuracy of a video, especially if we are not an expert in the subject matter. Additionally, the quality of the video can be affected by a number of factors, such as the equipment used, the lighting, and the editing, that's why it can be challenging for us (Cynthia J. Brame, *Effective Educational Videos, principles and Guidelines for Maximizing Student Learning from Video Content*, 2016).

Copyright infringement is by using copyrighted material in our video, we could be sued for copyright infringement. This is why it is important to obtain permission from the copyright holder before using their material, therefore our job here is to be absolutely transparent here and respect the copyrights (Copyright and Fair Use, n.d.).

Distribution and promotion risks, after we have created our educational video, we need to find a way to distribute it and promote it to our target audience. This can be a challenge, especially if we are not familiar with online marketing, eventually our mission to spread the awareness and wellbeing (Video Distribution: 6 Strategies that Maximize Promotion, 2023).

4.5 Stages of project, timetable and financing

The objective of any introduction to any educational video is to inform the audience about the video's goal and purpose. The stages of producing project are divided into five which are initiation phase (introduction), planning phase (writing script), implementation phase (storyboard and actual video), monitoring and controlling phase, evaluating and reporting (5 Stages of Video Production: A Realistic Timeline, 2023).

In the below chart modified by the student authors, figure 1 there is a 5 Phases of project management is described shortly. The main idea of this chart has been explained as a phases of project management (Eby K., Smartsheet, 2023)

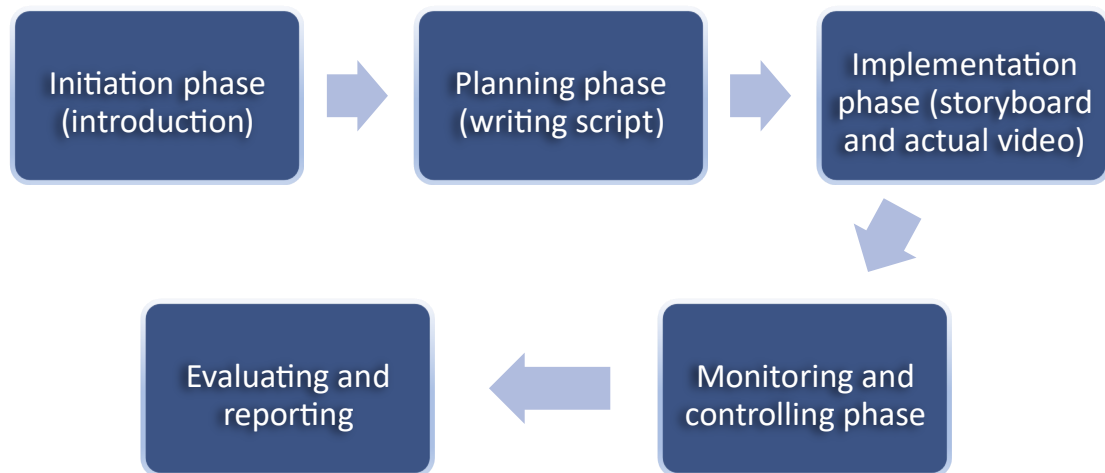


Fig1. Stages involved in project management.

The first stage is introduction, purpose, goals, and objectives of the educational video has defined, as well as identifying the target audience and their needs. During this stage also other research to gather relevant information about infection prevention in maritime settings and specifically in the cargo ships has been mentioned (What Is The Project Life Cycle, 2023).

In the planning phase, the needs of how to perform hygiene correctly and how to prevent infection among the professionals has been recognized and based on these needs, starting to write a script on how to follow guidelines and how to minimize or prevent of disease and infection can be stated (What Is The Project Life Cycle, 2023).

The implementation phase is making a storyboard for the video. A storyboard typically consists of a series of images or frames, each of which represents a specific moment or action in the story. These images are arranged in sequence to show the progression of the story, and they also include additional details such as dialogue, camera angles and subtitles (What Is The Project Life Cycle,

2023). The next step is monitoring and controlling phase. When the plan is done, we will monitor the progress and the quality of the plan by sending it to the target audience and gather their feedback (What Is The Project Life Cycle, 2023). The final stage is evaluating and reporting. In this final stage the video will be distributed to the target audience which is maritime professionals and we will evaluate the project's success, results by asking about the subscriber's feedback and ideas and then report on the project's outcomes (What Is The Project Life Cycle, 2023).

About the timing of this video, first, we wrote the plan during the summertime and then presented it in September 2023. After getting accepted thesis plan, we sent the plan to the subscribers. We had to wait because the script needed to be accepted by Maritime professionals (subscribers), and then we were ready to start our plan, and we could start making the video, which was 5 minutes long, with our expenses and resources, including the people, tools, cameras, locations, funds, or anything else required to carry out all the tasks. As working tools and a place for shooting, laptops, and desktop computers, and room from the school were required. The actual video was ready by Autumn 2023 and was presented to the audience. (Video Length: How Long Should a Course Video Be?, 2022).

4.6 Ethical point of view

Creating an educational video about how to prevent infection in cargo ships for marine professionals is highly important.

Ethical issues in thesis products like videos in our case can arise in many different ways. Some of the most common ethical issues include

The privacy of the people featured in the video must be protected. This means that their personal information should not be shared without their consent (Ethical Issues Related to Data Privacy and Security, n.d.).

Potential for harm in our job is to make sure to provide an absolute accurate information about our topic based on evidence based and must weigh the potential benefits of the video against the potential harms (Ethical Considerations in Research: Types & Examples, 2023).

Misrepresentation means, in the video should not misrepresent the research findings. This means that the video should be accurate and should not mislead viewers (Controlling the spread of misinformation, 2021).

Fair use means If the video contains copyrighted contents, it is required to be utilized in a manner that complies with fair use requirement. A legal principle known as "fair use" permits some limited uses of copyrighted content without the owner's consent. (Use Information Correctly: Copyright and Fair Use, n.d.). To tackle ethical issues in thesis products like videos, it is important to be aware of the potential ethical concerns and to take steps to mitigate them. This may involve by getting approval from an institutional review board or any organization before making the video, by obtaining informed consent from participants, and of course protecting the privacy and anonymity of participants, where that leads us to be minimizing the potential for harm to participants, moreover making sure the video is accurate and does not mislead viewers and by using copyrighted material in a way that is considered fair use (Ethical Issues in Research, 2022).

The plan demonstrates a significant commitment to ethical considerations in the creation and sharing of thesis products. It mentions the importance of ethics in ensuring responsible practices. Also emphasized the need for clarity regarding the purpose of the video and how it will be used. This is essential to guarantee that the material is in compliance with the target audience and desired objectives.

The plan emphasized how important accuracy and transparency in the study and results are. Respecting these guidelines promotes trust among parties and the audience.

Respecting the privacy of individuals involved or featured in the video is a key ethical concern. The plan acknowledges the importance of safeguarding individuals' privacy rights. Considering copyrights as a significant ethical

aspect of the process is essential. It indicates a commitment to intellectual property rights and legal responsibilities.

The mention of consensual cooperation is a positive aspect of the plan.

Ensuring that all parties involved willingly participate and agree to their roles contributes to ethical practices.

Overall, the plan reflected a comprehensive approach to creating an ethical thesis product, particularly a video. It covers critical ethical aspects such as transparency, privacy, and copyright compliance while emphasizing the importance of clear communication and cooperative consent (Ethical Issues in Research, 2022).

5 EVALUATION

5.1 Evaluation of the project and product

The information used in this project was carefully selected from a range of reliable sources and influenced by the marine professional experiences in the maritime sector, particularly in relation to infection control aboard cargo ships. The manuscript's sentences of the product have been organized and presented to facilitate the effortless creation of video incorporating these phrases across prevention of infection context.

The data is thoughtfully organized in accordance with relevant categories and subcategories, following a structure that aligns with the specific needs of infection prevention in maritime settings based on WHO and IMO guidelines. As a result of this product, individuals, particularly those in the maritime industry, will acquire the knowledge necessary for effective documentation in the context of infection prevention aboard cargo ships.

Throughout the creation of our educational video on the prevention of infection on cargo ships, we maintained an ongoing collaboration with a dedicated teacher and marine professionals. This collaboration was essential in ensuring the quality and accuracy of our project.

Utilizing a waterfall project management approach, we had the flexibility to incorporate improvements at any stage of the project based on the feedback that we got. Expertise and guidance helped us stay aligned with our project objectives and industry best practices.

In the final phase of the project, we presented our manuscript for the video product to a representative from the cooperating group. They evaluated the video's script to determine its suitability for meeting the institution's needs in the context of infection prevention on cargo ships. Fortunately, the video not only met their requirements but also aligned with industry guidelines and needs, ensuring its practical relevance.

The feedback we received was constructive, including suggestions for further enhancement. One such suggestion was to include supplementary materials from both teacher and marine professional, such as a websites, webinar and related sources. These offer clear instructions on infection prevention practices aboard cargo ships, along with practical features.

In order to ensure the delivery of the highest quality and personalized product, we took into account the valuable feedback provided by our subscriber to create the final version of our educational video on the prevention of infection on cargo ships. As part of this refinement process, we developed an educational video that offers concise instructions about hygiene for users on how to effectively do self-hygiene to prevent disease and stop it from spreading and the final feedback received from marine was excellent. Not only did the video meet their requirements and their needs, but they also noted that the result can be utilized to educate other marine professionals. From marine professional teacher's point of view the thesis demonstrates the ability to generate creative solutions and offers practical insights from a professional standpoint. Furthermore, the student was able to work independently and selfdirected in their thesis process.

5.2 Self evaluation

This project has had a profound impact on the authors' personal and professional growth within the context of diseases and infection and prevention of them. Both individuals demonstrated a commendable level of professionalism and responsibility in executing their respective roles. The writers set out on a path of personal growth and skill development while concentrating on infection avoidance in marine environment.

The preparation and starting stages of this project, which the authors themselves undertook as nursing students, helped to their viewpoint and their competence in dealing with these problems was enhanced by this understanding of the complexities of the subject.

During the implementation phase, which involved creating the educational video product, the writers improved their knowledge of the Finnish language and communication skills during the thesis process in addition to learning more about infection prevention.

In marine contexts, effective communication is essential for guaranteeing safety and compliance.

Balancing personal, professional, and academic responsibilities was a significant problem in this endeavour. The writers were adept at managing their time and priorities, which is vital for people in demanding marine jobs.

By taking responsibility of this project and seeing it through to completion, the writers also improved their leadership abilities. Infection control and marine safety depend on effective leadership.

In conclusion, our experience through this thesis project, which focused on infection prevention in the marine industry, has been instructive and transformative. We improved our knowledge and communication abilities and developed our understanding of the difficulties and complexities to this sector.

Most significantly, as demonstrated by the usefulness of our educational video, we deepened our understanding of the significance of successful education and information transmission. We have experienced a journey of personal and professional development, and we are now better prepared to support the vital cause of infection control it for marine who are aboard on cargo ships. Our

educational and professional growth have genuinely benefited from this experience, and we are eager to use the information and abilities we have gained in the future.

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