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## The role of maritime education and training at the secondary level in St. Vincent and the Grenadines

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**WORLD MARITIME UNIVERSITY**  
Malmö, Sweden

**THE ROLE OF MARITIME EDUCATION AND  
TRAINING AT THE SECONDARY LEVEL IN ST.  
VINCENT AND THE GRENADINES**

By

**GORDON CHARLES**  
**St. Vincent and the Grenadines**

A dissertation submitted to the World Maritime University in partial  
fulfilment of the requirements for the award of the degree of

**MASTER OF SCIENCE**  
**in**  
**MARITIME AFFAIRS**

**(MARITIME EDUCATION AND TRAINING)**

2022

## Declaration

I certify that all the material in this dissertation that is not my own work has been identified and that no material is included for which a degree has previously been conferred on me.

The contents of this dissertation reflect my own personal views and are not necessarily endorsed by the University.

(Signature):   
.....

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## Acknowledgements

Jeremiah 29:11

“For I know the thoughts that I think toward you, saith the Lord, thoughts of peace, and not of evil, to give you an expected end”.

With a broken heart, I offer my most heartfelt prayer to the God of Heaven and Earth, the Creator and Source of Life. I want to express my heartfelt gratitude to the Lord for supporting and enabling this endeavour. It would not have been possible without the Lord's intervention.

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## Abstract

Title of Dissertation: **The role of maritime education and training at the secondary level in St. Vincent and the Grenadines.**

Degree: **Master of Science**

The dissertation is a study of the role of secondary-level maritime education and training (MET) in St. Vincent and the Grenadines (SVG). Secondary level MET in public schools in SVG is needed as a drive to promote, develop, and sustain the industry and to bring greater awareness of its importance to the Vincentian community.

questionnaire and interviews were used as part of a mixed-methods approach to collecting and analyse data to answer the four research questions pertaining to the topic. The study used purposive sampling and questionnaire methods to get responses from people in the maritime sector in SVG.

The findings reveal that MET is not available at the secondary level in SVG. However, secondary level MET can bring awareness of the industry to the Vincentian community if implemented. Furthermore, it shows that secondary level MET has potential value if it is implemented at the secondary level. Further, it showed that there is national development in SVG that calls for MET at the secondary level and that the government has a role to play in getting MET into the secondary public school curriculum by employing the maritime administration and the ministry of education. Finally, suggestions are provided in terms of the way forward to start and grow MET at the secondary level in SVG.

**KEYWORDS:** Secondary-level, Implementation, Public Schools, Maritime Education and Training, Awareness.

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## List of Abbreviations

MOE:	Ministry of Education
MET:	Maritime Education and Training
WMU:	World Maritime University
IMO:	International Maritime Organization
METI:	Maritime Education and Training Institution
AMC:	Astraillian Maritime Institute
BCS:	British Colonial System
CES:	Caribbean Education System

# 1. Introduction

## 1.1 Background and Context

St. Vincent and the Grenadines (SVG), an island nation in the Caribbean, has aspiration to become an effective maritime nation by optimising the use of its secondary educational level (SEL) to introduce maritime education and training (MET) at that level to aid in bringing awareness, sustainability, and development to the industry and to the country on a whole. Because of limited resources, the country relies on imports from other countries. On the other hand, as an agricultural nation, the country can benefit from agricultural exports. Added to this, once its ecosystem is utilised and sustained effectively, much benefit can be derived from its maritime environment. People could have gotten a lot out of these benefits if the maritime sector of the country had been well used and pushed by making people aware of it through early MET at the SEL.

Many states in the caribbean region have yet to make secondary MET a reality, or even a concept worthy of policy debate. SVG is not excluded. The researcher looks into ways that can best optimally stage the introduction of maritime education and training to the citizens of SVG. The researcher believes that the time or state to introduce maritime knowledge is at the secondary level of secondary schools within SVG to bring awareness to the people more effectively. This can help the growth and development of the industry.

The maritime industry is one of the most exciting and successful industries on the planet. It covers 70% of the water and is known as the planet's ocean. Global in scope and essential to the global economy is the maritime sector ("MPSE Coalition – MET and Careers"). Therefore, the industry's sustainability is very important. Education has been an extremely important contributor to the growth of many industries. Therefore, the maritime industry can be sustained by appropriate education and training through the development of the human element, which is very essential. Secondary-level MET

is one of the most practical options to consider. According to Cunningham (2015), as long as practical solutions are used to address human concerns, the sector will be able to remain viable. Therefore, to help in developing this small island nation, the researcher is mitigating that secondary Level MET be employed at the secondary level.

MET, in a broader context, promotes growth, expansion, and positive change. Individuals in the industry will benefit from the wide range of information and options it provides. Human resources are essential to the industry's long-term viability and continuity, as they are in most others. The international maritime organization (IMO) has prioritised the need for qualified seafarers to be recruited, retained, and properly trained (Cunningham, 2015). By focusing on high school students, we can create a powerful force for long-term change and sustainability in the industry (Haun, 2014).

The growth and development of the maritime education industry by secondary education in the 21<sup>st</sup> century is considered of great importance to the industry, which brings many opportunities, potential, and challenging strategies to solve a large number of issues affecting the industry. Maritime education and training institutions (METI) are the backbone of building a country's maritime sector. It helps to promote growth, expansion, and positive change in a broader sense. Safety, quality, and environmental friendliness are the higher ideals of today's world community, whether maritime or otherwise. It is a place of learning for seafarers' education as well. Several variables influence the METI, including global economics, business, reorganization, and government efforts on policy around the world (Basak, 2017). These approaches have been deemed to have great benefits for any country's development and maritime domain. MET at the SEL will help to introduce the knowledge of the maritime sector to students at a very young age and heighten awareness of the maritime industry (Mxolisi Kuhlase, 2020).

If MET is applied appropriately at the secondary levels, it gives information and skills for the shipping industry that may be used by academic institutions. METIs help in

strengthening and amplifying collaboration between the government and shipping corporations as well as other maritime business sectors. The role of any METIs is to provide MET, which plays an important role in the maritime industry's success, which is very important for the benefit of seafarers in order for the maritime industry to grow (Basak, 2017).

## 1.2 A brief overview of SVG

Saint (St) Vincent and the Grenadines (SVG) is an island in the eastern Caribbean. It consists of a group of thirty-two (32) islands and cays (low banks of coral or rocks) that make up the Grenadines Islands (Charles, 2017). It is located around 1,600 miles southeast of Miami at a latitude of 13° degrees 15' north and a longitude of 60° degrees 56' west. SVG, the largest island in this 32-island archipelago, has historically been a sanctuary for seafarers. Kingstown is the principal port. It is volcanic, with one active volcano, and highly mountainous and covered in forest (Hydrant, n.d.). It is approximately 389 square kilometres in size and has a population of approximately 10% of East Indian, European, and indigenous people, as well as approximately 100,000 people of African descent (UNESCO-IBE, 2008). It was colonized by the British until it gained independence in 1979 (Caricom), n.d.). It inherited a Westminster Parliamentary system of government, similar to that of the majority of the former British colonies. The nation of SVG is a member of a variety of organisations at both regional and worldwide levels. It is a member of the Organisation of Eastern Caribbean States, a subgrouping of the region's economic and political entities (OECS), which is comprised of the Windward and Leeward Islands. Additionally, it is a member of the Caribbean Community, which is a bigger regional grouping called CARICOM (UNESCO-IBE, 2008).

SVG, is known for its boating or ship activities (Heater, 2003). The people of SVG are therefore marine-oriented with a culture that connects them to the sea (Heater, 2003). Fishing and other sea-faring activities, perhaps more than agriculture, have remained

and have been a constant way of life and diversity for SVG maritime societies (Blackman et al., 2013). Agriculture, industry, and services are the three primary pillars of the SVG economy. However, tourism is the primary activity—contributing to more than half of the nation's GDP (SVG ESA, 2021). With its rich ecosystem and maritime potential, the community of SVG still lacks proper knowledge of such an industry and its potential.

The island has over 90% of its trade by sea (Government SVG, 2017). Its marine sector, with its vast island chain and body of water, has a very rich ecosystem but remains difficult to manage and preserve due to a lack of effective MET. Proper seafarers' education is somewhat lacking, and more effective maritime education awareness for the people of the island is needed for the educational development of its citizens in this sector and the development of the country as a whole (Government SVG, 2017).

### 1.3 Problem Statement

The main port of St. Vincent and the Grenadines is Kingstown, which serves as the island's shipping hub. The majority of the country's day-to-day activities take place in the capital, Kingstown (SVGPA, 2008). Added to this, the multi-island nation has seven (7) other ports strategically placed on seven of the Grenadine islands. Yet, people seem to only recognise the maritime industry when need be. For instance, during Christmas, thousands of barrels are collected that arrive in the country by ship (SVGPA, 2008). Yet, the maritime industry is seldom chosen as a career path for many Vincentians; instead, the law and other areas of study are chosen. Adding maritime education to public schools in SVG at the secondary level can help the younger generation understand how important the industry is. According to Padwick et al (2020) "Early childhood education is vital for developing children's goals and adjusting education so all children, regardless of gender or background, may seize opportunities in a dynamic environment".

The government of SVG has viewed education as important to nation-building, which can bring a number of opportunities to the country. Therefore, in 2001, the education revolution in St. Vincent started, which catered to compulsory education for every child. This, however, did not speak much to maritime education and training, but later in 2014, the government approved a project to establish a METI in the country to train seafarers. The project was halted due to a lack of expertise in the sector (Government SVG, 2017). The scope of MET is not fully known to the public, and that poses a problem.

MET is seldomly thought of at the secondary level in many countries, because key stakeholders are uninformed of the potential and importance of the maritime sector, MET implementation at the secondary level is hindered, and there is a lack of rigour and focus on promoting the industry to the youth through MET in secondary education (Heirs & Manuel, 2021). Bringing MET to the secondary education level in SVG will help to highlight the importance of the maritime industry not just locally but globally as well. Such a venture would bring awareness of the industry to the people of SVG and possibly expand the growth of the industry with more people gravitating toward the maritime sector. This may help to educate people more about the prospect and the opportunities of MET for the development of SVG and all nations as a whole.

Furthermore, it is hard to imagine that a country that has 43 years of independence does not have a MET expert to date. To encourage nation-building and to bring awareness of the industry to its people, implementing MET at the secondary education level in SVG is urgently needed. According to Huan (2014), as it relates to maritime secondary education, when students are exposed to MET at the secondary level, not only do the students and educators benefit from potential career routes, but it also remedies the gap between lack of awareness of the national maritime heritage and other existing industries.

#### 1.4 Research Aim

The purpose of this research is to give meaningful insight into the role of MET at the secondary level in SVG.

MET at the foundational level of secondary education in SVG may help young people comprehend the role of the maritime industry, its peculiarities, and how it operates, and may aid them in choosing it as a career path. It may also help to dispel the myth that maritime is not a viable career option for most people in SVG when compared to other disciplines of knowledge such as business, law, medicine, and technical and vocational education. So, the researcher thinks that this is worth looking into and that the results of the study could help move discussions toward putting this into SVG.

#### 1.5 Research Objectives

1. To examine the impact of secondary-level MET on the maritime industry in SVG.
2. To investigate how secondary MET can contribute to the maritime industry's long-term sustainability.
3. To analyze how contemporary issues in the maritime industry can be addressed by implementing maritime education and training at the secondary level in schools in SVG.
4. To examine the government's role in secondary-level marine education and training.

#### 1.6 Research Questions

1. Is maritime education and training available in public schools, and if so, to what extent? (What is the level of awareness of MET in public schools? Are they available?)
2. What is the value of implementing maritime education and training at secondary public schools in St. Vincent and the Grenadines?
3. What national development and challenges call for MET at the secondary level?

4. What role does the government play in maritime education and training at the secondary school level in SVG?

### 1.7 Methodology

This research was carried out using a mixed method of qualitative and quantitative research design. This approach was required to aid in understanding the necessity of the research objectives and to collect the necessary information to fulfil the answers to the research questions. The methods of research techniques that were used are electronic questionnaires, structure interviews, and literature reviews. The study has fulfilled all the criteria for research from the research ethics committee of the WMU institution. More elaborated explanation is provided in chapter 3.

### 1.8 Structure of the dissertation

This reseach consist of five chapters:

The first part of Chapter 1 consists of the introduction and overview of SVG, along with the problem statement, aim objectives, and research questions. Also included in this chapter is a brief description of the methodology. Chapter 2 talks about the idea of MET and MET at the secondary level. It also talks about the structure of education in SVG. Chapter 3 provides methodology and method,. Chapter 4 speaks to the data analysis where both quantitative and qualitative approaches are made by means of questionairres and interviews to fulfil the research purpose and Chapter 5 gives a summary of the research by answering the research question. It also covers the limitation, recommendation and conclusion.



## 2. Literature review

### 2.1 Introduction

Maritime education and training (MET) at the secondary level are vital to the development of the maritime industry in heightening awareness of the sector. The significance, therefore, of the value of MET is found in the fact that its high quality ensures the quality of both the practical skills and the ability of skilled seafarers to maintain the safety of ships, protect the environment, and enable a smooth flow of trade. This explains why MET is important for the expansion and advancement of the maritime sector (Tiataing, 2021). This chapter has explored maritime education and training, MET at the secondary level in SVG, and the current framework of secondary education in SVG. This literature review aims to demonstrate the impact that MET at the secondary level in any country can have a significant effect on the country's development. This chapter concludes with a summary.

### 2.2 Maritime Education and Training

The IMO Convention on Standard of Training, Certification, and Watchkeeping for Seafarers (STCW) is a thorough set of rules designed to guarantee that the highest standards of seafarer competence are upheld globally (ISF, 2020). The STCW convention was amended at the 2010 Manila meeting. These amendments will have an impact on METIs around the world in terms of seafarer education and training (Shi, 2017).

Traditionally, "MET" refers to the educational programme designed to produce and guarantee the availability of competent seafarers for the shipping industry (Mitroussi & Notteboom, 2014). MET is sometimes just called "seafarers' education," because it prepares people to work at the centre of shipping in a global, multicultural, and multifunctional setting (Edirisinghe et al., 2017a). Ineffective government policy has created obstacles that have impeded the formation of greater MET at the secondary

level and in colleges, as well as prevented the appropriate operation and accreditation of maritime schools, which has contributed to a lack of growth in marine schools (Boonadir et al., 2020). The development of specialised navigational skills is the duty of maritime vocational education, which also serves as a fundamental, overarching, and directing force in the growth of the shipping sector (Shi, 2017).

However, education for seafarers needs to be started at an earlier age. Secondary maritime education is an option that provides students with the opportunity to get a bachelor's degree while also developing the knowledge and abilities necessary to enter the maritime workforce. There are schools that will only focus on the maritime sector, while others offer specialised departments or courses for those interested in nautical careers (MITAGS, 2020).

Nevertheless, through maritime education, people acquire the lifelong skills and competencies necessary to operate the shipping sectors, which have a significant positive economic impact on many nations of the world. Education and training in the maritime industry give the information and skills necessary to optimise its system in accordance with international law. While focusing on strategic planning and human resource management, the leadership of contemporary firms can apply the acquired knowledge to the numerous maritime clusters (Tiataing, 2021).

In an environment where the socio-economic, political, and cultural settings are rapidly changing, the maritime sector can be maintained by ongoing training and education. Only with proper education and training can such uncertainty in the maritime industry be effectively controlled. Spreading MET, most notably in primary and secondary schools, ultimately ensures the viability of the maritime industry Tiataing, 2021. According to shipping industry employer input, high-quality personnel for special vessels, large ships, and high-tech ships is still insufficient (Shi, 2017). Also, student quality must increase. Most maritime colleges focus on professional learning, but the curriculum is too restricted, so, graduates lack economic and legal

expertise (Shi, 2017). According to Taitaing (2021), from his research findings, there was a compelling argument in favour of beginning the teaching of MET in secondary schools from the very beginning of the curriculum. It will be beneficial for the maritime industry in the long run if MET is taught in secondary schools and is included in the curriculum.

### 2.2.1 Paradigm Shift

In today's industrialised world, education is a major aspect. People need a solid education to succeed in today's challenging world. Modern society rests on the shoulders of the educated and well-off, who are in a better position to address their problems. (Shama, 2018). It is clear from the curriculum in most schools that there is a hierarchy of topics, with some being regarded as helpful, like mathematics, and others being deemed useless, like the arts (Robinson, 2010). Many Caribbean countries' current educational systems were not created for the current generation but rather for the enlightened and industrial revolution eras. There are, however, few examples of maritime transport strategies, port rules, and MET in the Caribbean republics. Such policies would include maritime transportation and related industries (Romero & Mejia, 2020). Learners should be pushed to question the status quo and develop critical skills that are mostly cognitive while meeting the requirements of specific competencies related to specific professional standards in this new university paradigm that combines inquiry and task-focused, outcomes-based learning approaches (Manuel, 2017).

The competency and knowledge of MET are needed to develop the industry and to achieve the highest standards which can only be reached if MET is fully introduced to any nation at the secondary level. The necessary qualifications are needed at the technical, management, and business levels. Qualification is also needed to enhance the use of simulators. Training is required for the full development of research and projects to create institutional readiness (Mehta, 2009). The fourth industrial

revolution is distinguished by a fantastic technological mix. The new challenges and opportunities for adaptation would be difficult to meet without education and training at all levels. Stakeholders in the shipping industry should be kept up to date on the new paradigms by adopting and developing new methods for better training the workforce for the future (Nopalieh, 2021).

In almost every country and culture around the world, MET for water transportation have their roots in an on-the-job training paradigm (Manuel, 2017). It is necessary to conduct more research on the specific types of MET and curriculum features that will promote a long-term paradigm of highly competent seafarers who are well-equipped with academic qualifications (Manuel, 2017). Secondary education must advocate for and spread the adoption of divergent and lateral thinking.

Secondary school curricula should promote and encourage new ways of thinking that emphasise creativity and originality. Secondary school MET programmes provide students with a significant advantage in terms of technical education, allowing them to better consider maritime careers on a worldwide scale. But the best way to give young people access to maritime knowledge is to change the high school curriculum to include more topics like MET.

### 2.3 Maritime Education and Training at the Secondary level

When countries put in place MET at the secondary level, they improve the public's knowledge and understanding of the industry as a whole, which plays a crucial part in the development of the industry (Wilson, 2022).

The academic training provided by maritime schools is primarily the responsibility of the government education department. The management of seafarers' training and oversight of the application of the pertinent rules and regulations in maritime

institutions and training organisations are the responsibilities of the maritime administrative institutions (Luo, 2012, p.13).

Secondary-level MET raises awareness of the maritime industry as a worthwhile career choice that is advantageous on both an individual and societal level. It promotes consciousness, economic growth, and the development of psychomotor abilities (Cunningham, 2015). Secondary school is a shift from group safety in elementary school to autonomy and responsibility in post-secondary education or the workforce (Salimon, 2017).

In terms of facilities and personnel resources, the Caribbean Maritime University (CMU) is one of the most established METI in the English-speaking Caribbean and was established in 1980. However, the results of a survey Wilson did in 2020 revealed that the Jamaican population may not be fully aware of MET due to the low level of public awareness, lack of interest in the maritime industry, and the value of the sector not being understood. The researcher believes, looking at the above finding in the Wilson 2020 survey result, that it is insufficient to start MET at the university level and that MET should be implemented at a much earlier age in SVG and other Caribbean nations to bring greater awareness to the region.

According to Sampson et al. (2011), systems are more likely to provide seafarers with a sufficient standard when testing techniques are more appropriate and valid (testing knowledge, skills, and competence) than when testing incorrect knowledge or when systems are unable to test skills or competence. Therefore, exposure to maritime studies at the secondary level can be a form of testing for seafarers. According to Kamens, Meyer, and Benavot (1996), secondary education models aspired to build expansive systems that prioritised open access and educational equity (p. 2). In order for secondary education to be meaningful, it must be rooted in relevance to society and culture and include a variety of information. According to Paquette & Fallon (2014), it must offer a fair amount of equal opportunity for knowledge content and standards.

The fundamental tenet of Secondary education policy is based on the belief that every child will benefit by raising the level of productivity and, in turn, aiding in personal, societal, and national growth and development. The introduction of the MET subject will help in raising awareness of the industry and its importance. According to Kuhlase (2020), the introduction of maritime subjects in schools introduces pupils to the maritime business and encourages them to work there. Students benefit from exposure to maritime training because it allows them to make educated decisions about their futures and equips them with practical experience in the industry. While getting specialised training, they can learn more and move forward in their careers (Women et al., 2015). Students choose an academic and professional framework based on what they already know, what they're interested in, and what resources are available. This lets them learn more about their chosen subject and gain experience in it (Bird & Burgess, 2008).

Maritime schools cannot solve all the issues as it relates to MET. Nevertheless, the fact that they exist now is a step in the right direction (Mtati & Ingpen, 2020). It will offer the younger generation a wider career choice as opposed to the traditional subjects offered at public secondary schools in SVG. As in the case of South Africa, according to Mtati and Ingpen (2020), it is the hope that SVG will demonstrate sufficient appreciation for the establishment of a maritime curriculum in secondary schools. This implementation, especially in public schools, needs to find solutions to problems relating to the quality of teaching methods as well as the knowledge and experience of the educators so that MET can be delivered. Seafaring's contribution to society is highly valued (Wilson, 2022). A job as a seafarer can be exciting and rewarding. Therefore, fostering an atmosphere that encourages training, top-notch certification, and employment for seafarers may boost their output and, consequently, aid in the development of the economy and nation (Wilson, 2022).

### 2.3.1 Trends in MET at Secondary schools

"The global trend in MET is to combine occupational and academic training to lead to qualification" (Manuel et al., 2017). However, secondary-level MET has the opportunity to cover a wide range of issues related to the maritime industry and to provide students with the necessary skills, knowledge, and understanding of environmental awareness and career options (opportunities) for the youth (Haun, 2014). MET are also used to address or lessen the high risk associated with maritime environments, such as oil spills and maritime accidents (Cunningham, 2015). As a result, MET has a crucial role in reducing marine accidents and increasing ship safety, environmental preservation, and cost-efficient ship operating at sea. in limited waters, and/or in port regions. (Mehta, 2009).

Traditional seafarer training emphasised practical skills. While this technique targets some cognitive capabilities, it emphasises the training of hands-on practical skills for specific jobs. Analytical and critical thinking abilities are emphasised in academic education, with a concentration on reading and discussion rather than hands-on, task-based learning. (Manuel et al., 2017). Ships must have enough crew members who can meet the needs of a global maritime community that is diverse and multi-cultural. This can be done in part by sending more students to MET secondary schools (Cunningham, 2015).

According to Mxolisi Kuhlase (2020), when it came to the maritime industry, a survey in Sweden (2009) found that the general public had little understanding of what was involved. In the public sector, maritime transportation is viewed as a mode of transportation for both goods and passengers. Sweden devised a plan of action after conducting a survey. The focus of the strategy was to raise public awareness. 1072 students signed up for a secondary school's basic fishing course after hearing about it through this intervention strategy.

The Co-founder and Chairman of Investment Management offered a brief overview of Some global problems, like income inequality, unemployment, pollution, and climate

change, are getting worse in developing countries because they are tied to the economy and the environment. He concluded by saying that the two main issues on this list—economic and environmental—dominate. These two areas of emphasis are intertwined. Environmental sustainability is necessary for long-term economic growth. Today, Water disputes between nations, more frequent and severe extreme weather events due to climate change, a global deforestation crisis, an ocean that is rapidly turning acidic, eroding topsoil and agricultural capacity, and a biodiversity crisis unmatched in modern history are all effects of short-term economic thinking and careless use of our planet's resources (Core A, 2015).

Higher education (HE) has seen recent trends. Globalizing education is important for the maritime sector. Many maritime education institutes, like Australian Maritime College (AMC), compete internationally for students and personnel (Cooper & Otway, 2004). Because of the globalisation of education and the international nature of the maritime industry, maritime secondary schools around the world will eventually face the problem of effective quality assurance across international borders, as well as the requirement for reciprocal recognition of quality standards. to deal with the problem of ensuring quality across international borders and the need for quality standards to be recognised by both sides (Rahman et al., 2016) .

### 2.3.2 Increasing awareness

MET at the secondary level is important to any nation in helping to raise public awareness of the sector and provide job opportunities. The country or state could take steps to include MET in secondary school curriculums and make policies to support MET, which could also help young people choose a lucrative career path (Mxolisi Kuhlase, 2020). For students aged 11-18, a secondary education and its associated curriculum may be developed to lay the groundwork for an early awareness of maritime concepts (Cohen, 2006).



The introduction of maritime secondary education and training to any nation has, without doubt, opportunities and challenges. However, despite the challenges, it can be seen as a very important venture for a nation's development. This approach is thought to have the potential to boost growth and provide opportunities to raise awareness about the maritime industry among non-industrial participants, as well as serve as a catalyst for the development of youth. It makes it easier to find qualified and skilled workers, which is important for the long-term health of the sector (Cunningham, 2015).

The maritime industry is vast and dynamic in nature. It is an integral part of the global development of the world's economy. Yet, seemingly, the importance of the industry goes unrecognised by many citizens of many nations of the world today. The researcher believes that maritime education at the secondary level can heighten awareness of the industry, not just internationally but more so in small island nations such as SVG as well. Instead of the economy influencing educational decisions (Mintz, 2022), the researcher believes that educational awareness will help to influence the growth of the economy positively. Improving maritime safety awareness and/or security operations in the industry can be taught at the secondary level (Agyare et al., 2019). Education can bring awareness to the fisher folks of the fishing industry as it pertains to illegal, unregulated, and unreported fishing (IUU). Pollution of the environment has numerous effects on the ocean and shores. For example, pumping oil discharge overboard, as in the case of Ghana (Ávila-Zúáiga-Nordfeld & Dalaklis, 2018). MET Secondary level can help reduce these forms of pollution through proper education.

According to Taitaing (2021), the inclusion of MET in secondary school curricula will help raise awareness and pique the interest of youths in a career in maritime issues. It is beneficial to the maritime industry's future to ensure that this goal is met. To do this, a monitoring and control unit needs to be set up to make sure that the curriculum is

being taught correctly. Public opinion and awareness are key to enhancing maritime labour supply (Shortte, 2013).

Also, to cope with the safety and security implications within the maritime environment more effectively, knowledge of the maritime domain is necessary. Although these initiatives serve to identify hazards or threats to marine safety and security by providing the necessary channels for information sharing, nevertheless, they do not, of course, totally remove the risk of collision or the possibility of criminals using violence. Secondary education can make people in the industry more aware of security and help stop lawlessness or future crimes.

## 2.4 A Brief History of Education in the Caribbean

Education in the Caribbean has been influenced by the narrow framework of the Commonwealth Caribbean education (CCE) system. Tracing its historical growth in connection to global education trends is probably the most instructive way (Miller, 2021). This section provides a quick overview of the CCE's history with Britain and the Anglophone world (AW), which is relevant to the way in which secondary education (SE) in the region has been laid out.

The British colonised the New World in the early 1700s. They brought state-of-the-art of schooling and education at the time (Miller, 2021). The earliest records of schools date back to roughly 2500 BCE. "Eduba" was a school, scriptorium, and library in Sumer, Mesopotamia (south-central Iraq). As early urban centres flourished and Kings sought their own scribes to keep their accounts, kings established schools (Miller, 2018). However, interest in the antiquities of the Caribbean islands can be traced back to the early decades of European colonization, when it was reported that schooling began in 1899 (Smith, 2015). According to Cunningham (2015) "It is important to think about the history of secondary education when choosing the right analytical framework,"

The second stage of education, secondary education, in the Caribbean has a six-to-seven-hundred-year history (Miller, 2018). According to Miller (n.d.), the British colonial system (BCS) influenced the Caribbean educational system (CES). By the middle of the sixteenth century, a three-tiered educational system had developed in England for the instruction of the clergy as well as boys interested in professions in business and the law (Miller 2021). It was made up of the university, the grammar school, and the preparatory school. Grammar schools accepted students when they were twelve or thirteen years old and helped them get ready for college (Miller, n.d.). This secondary education justification is closely related to mainstream education history. It has a close connection to public administration and priestly vocational training. This history has led to a concept of secondary education that views secondary school as a step or level of education (Miller, 2018).

In the Caribbean, formal secondary education dates back to the nineteenth century. However, a number of secondary schools in the Commonwealth Caribbean were already open long before 1850 (GFUUPSS, n.d.). These secondary schools were run by religious groups and charities. Governments founded and operated a few secondary schools in the Commonwealth Caribbean until the 1950s and 1960s, when almost all the students came from private prep schools. In the 1960s and 1970s, the Common Entrance Exams integrated elementary and secondary education (Ronald E. Sheasby, n.d.).

The Caribbean Examination Council (CXC) was established in 1974 by sixteen of the eighteen Commonwealth Caribbean countries to replace examining bodies in England such as London University, Cambridge University, and City and Guilds, London. CXC has taken over as the sub-regional examining body, replacing the external examining bodies and gaining international recognition. By the 1980s, Junior and Senior Secondary Schools dominated secondary education in the Caribbean (Miller, n.d.).

## 2.5 The current framework of secondary education in SVG

In SVG, the public education system was created in 1849. Currently, the government financially supports all public schools, giving nonreligious institutions full financing and church-affiliated schools some funding. A unified curriculum chosen by the government is used by all schools in SVG (UNESCO-IBE, 2008).

The Department of Education in the Ministry of Education and Sports develops, implements, and evaluates state educational policy. The Education Act of 2005 requires formal education. This Act organizes, administers, and controls public education in the state. This act established compulsory schooling and special education. The ministry's mission is "lifelong education for everyone." This idea emphasises that all students have the right to a fair, high-quality education in institutions that are well-resourced and manage.

The goal of SVG's education system is to create a framework to support national growth initiatives and processes, encourage economic growth and product development, and raise the standard of living for Vincentians (UNESCO-IBE, 2008).

According to the Education Act of 2005, which is the principal regulatory framework that refers to compulsory education in SVG, on the rights and responsibilities of students, the Act states that, subject to available resources, all persons in SVG are entitled to receive an education appropriate to their needs. The Chief Education Officer shall provide access to education for every person of compulsory school age who resides in SVG. For the purposes of meeting the obligations under subsection

(1) the Chief Education Officer is responsible for -

- Enroll the student in an educational programme offered by a public school or an assisted private school;
- Direct the student to enrol in an educational programme offered by a private school;
- Provide the student with special education..

The educational system in SVG is divided into three levels. These include primary education (seven years), secondary education in two stages (five years for the first stage and two years for the second stage), and tertiary education (minimum of three years for a college degree). There are also some alternative higher educations programmed, such as vocational and technical courses. There is also special education for adults and handicapped education ( EDSVG, n.d.).

"Secondary education" refers to education designed for students aged eleven and older but younger than eighteen; "secondary school" refers to an institution that offers secondary education (Haun, 2014). There are currently twenty-six secondary schools (List of Primary, Secondary, and Tertiary Educational Institutions in SVG, n.d.). Secondary school attendance hovers around 60 percent for both sexes. This first phase will last for five years. This is followed by an additional two-year period for students planning to pursue further tertiary education abroad (scholaro. inc, 2022).

SVG's future is strongly dependent on high-quality education that prepares students for the workforce. To achieve continuous economic growth and progress, the education system must be improved in every facet (Education for all, 2015). The researcher believes, based on the above statement, that MET must be included., According to proponents, high schools complete the public education system, boost property values, and draw in industries with skilled employees (Mintz, 2022). Therefore, improving career prospects for seafarers, must be a top priority of the secondary level of education in SVG.

## 2. 7 Summary

Since the colonial era, secondary education has been a tradition throughout the Caribbean. The purpose of secondary education is inextricably tied to that of traditional education. Education is critical in today's industrialised culture. However, the majority of Caribbean nations lack secondary-level MET. In contrast, METs at the secondary level are essential to the expansion of the maritime industry because they

increase public knowledge of the field. MET ensures that qualified seafarers have the knowledge and abilities necessary to maintain ship safety, safeguard the environment, and promote the free exchange of commerce. Effective MET in secondary schools can pique students' interest in maritime careers and contribute to the expansion of the industry.

Any nation, including SVG, that adopts MET has potential and challenges. However, it is essential for a country's progress. When nations provide secondary level MET, they enhance the public's awareness, which is essential for the industry's progress. This strategy is important for the sustainability of the maritime industry. The next chapter covers methodology and methods.

### 3. Methodology and methods

#### 3.1 Introduction

The purpose of this chapter is to provide a detailed account of the research strategy and methodology used. Research requires data gathering, documentation, analysis, and interpretation (Cassell & Symon, 2015). In this chapter, the procedure for data collection and analysis will be described in detail. A mixed-methods strategy was chosen, this chapter will go into detail about the strategy's parts, such as the research design, data collection methods, analysis techniques, ethical considerations, and a summary.

The right reach approach, if chosen, may help you gather the necessary data and achieve the study objective (Flint et al., 2012). This research deals with investigating the importance of MET at the secondary school level in SVG and how the introduction of secondary level MET may impact the development of the country and its maritime industry. In light of this, the researcher decided that a multi-step mixed-methods paradigm was acceptable.

#### 3.2 Research Design

This study was inspired by postmodernism, which "is a method for looking at education from a critical" and challenges legitimization narratives of power (Holtz, 2020). As reviewed in chapter 2, European colonisation had a significant influence on the government of SVG, including the education system. Although general information concerning secondary level MET was obtained from the literature about western countries, the researcher believed it was very important to gain research information directly from the people of SVG, the area in which the research was conducted.

According to Holtz (2020), " postmodernism favours a variety of interpretations above that of a single expert researcher." For example, local knowledge from the given community spoke directly to the research problem and helped to answer the research questions to better fulfil the research need. Such local references will help achieve the goals more directly than secondary data that comes from sources outside the researched country.

Information and options were sought from a diverse range of people, including maritime experts from various departments under the Ministry of National Security, other qualified people from the Ministry of Education (MOE), and students from public secondary schools.

This study employed a mixed-method approach, which included both quantitative and qualitative research findings. According to Fisher (2012), a mixed-method research process is used to collect, analyze, and amalgamate qualitative and quantitative research methods into a single study in order to better understand a research problem.

Triangulation was used to achieve this study's objectives. The triangulation design collected data on secondary-level MET in SVG. According to Noble & Heale (2019), A theory can be proven by supporting results. So, triangulation is the process of combining different sets of data to understand a phenomenon and get similar results that give the research credibility.

Triangulation aims to reduce, negate, or counterbalance a single strategy's weaknesses, thereby improving interpretation (Thurmond, 2001). This methodology gave the study more depth by pointing to other databases that showed how the general public sees MET in secondary schools in SVG. Triangulation reduced the limitations of the data set to validate a reliable result, making it a more reliable way to compare and contrast the findings.



### 3.3 Research methods

This research utilised questionnaire and interviews to achieve its research objectives. This strategy is a blend of qualitative and quantitative method and acts as an alternative to the two classic approaches (Williams, 2007). This has been of great assistance in gathering pertinent information and shedding light on the subject as it pertains to the research. These technique were utilised to collect the data in order to corroborate and substantiate the findings and generate new conceptualizations.

#### 3.3.1 Questionnaire

A questionnaire is a tool for research that is made up of a list of questions meant to get information from respondents (McLeod, 2018). The questionnaire instrument (see appendix 3) was administered electronically online using Google form and consisted of twenty-six (26) mandatory questions with two (2) open-end questions. Google forms, linked to the WMU account, were used to create, analyse and disseminate the online questionnaire. This method assisted the researcher in get instant result that helped him achieve the reasearch goal and objectives. Seven of the mandatory questions deal with the demography of the interviewee. Ten online questionnaire were requested to be filled out by ten (10) participants from the education sector, the maritime administration, and other related maritime deparment each. Only the SVG coast guard met this criterion. About one hundred and fifty participants were contacted, but only eighty-five (85) responded.

The questionnaire contains a total of 26 questions, both open-ended and closed-ended. The questionnaires were distributed via email to maritime personnel, educators and secondary school students in order to collect relevant information. Three members of the coast guard took part in a pilot test, and there were no changes made to the questions.

### 3.3.2 Interview

In recent attempts to improve symbolic interactionist methods, the interview has been used as both a subject of sociological study and a tool for research (Silverman, 2016). In conducting this research, fourteen (14) structured interview questions (see appendix 2) were conducted with participants within the maritime sector from different departments. The interviews were effective in giving a clear understanding of personal input into the research topic. All seven (7) interviewees complemented the questionnaire by answering the standard questions. These participants were carefully chosen with the hope of obtaining the relevant information necessary to complete this research meaningfully. This process took place between July and August 2022.

### 3.4 Data Collection

Data was gathered from both primary and secondary sources. Data was collected using a mixture of quantitative and qualitative techniques, including questionnaire and interviews, as well as descriptive and category statistics. Purposive sampling along with the snowball method was used as a strategy for data gathering. Both the interviews and the questionnaire took place in July and August. Each interview lasted between 30 and 45 minutes for each participant and was conducted over Zoom, Otter, an auto transcript software, and WhatsApp using a computer or cellphone. Each interview was recorded and transcribed using Otter.

Literature was collected using secondary sources such as books and articles. Both electronic and printed books are from the WMU library. Scholarly journals, online resources, textbooks, an online library, and other online databases like government websites and government cooperation plans Over thirty (30) people from different ministries were asked for an interview by email, WhatsApp, and phone, but only seven of them replied.

### 3.5 Data Analysis

The study attempted to provide analytical answers to the research questions. All of the analytical data and findings were classified and used in the research to help meet the research's goals and objectives, reach a conclusion, pave the way for future research, and provide solid recommendations, guidance, and advice on any future establishments.

Six themes were developed after analysing the data and reviewing the literature presented in Chapter 2. The following were the themes: 1. Awareness of MET 2. Development/Sustainability 3. MET's Drawbacks and Challenges 4. The value of MET at the secondary level 5. The government's role and 6. recommendation. Quantitative findings were also presented in the form of tables, graphs, and pie charts using descriptive statistics. An Excel spreadsheet was used to create tables and graphs with statistical information and findings concerning the research. Also, qualitative results were shown in the chapter four themes section, but the participants' real names were changed to fake names to protect their privacy. All interviews were transcribed, and the data body shows the result of the interview materials.

### 3.6 Research Ethics

Ethical approval was obtained from the World Maritime University Research Ethics Committee (REC). Ethical research publication requires an individual to conduct research in an ethical manner, making moral decisions from the outset of the study process (Wester, 2011). To protect participant confidentiality, pseudonym was applied.

The main focus of the rules that govern research with people now is to make sure that people are safe by making informed consent, which is the most important thing (Rhodes, 2010). All participants agreed to be interviewed and videotaped. They were told how the study will utilise and discard their data. The interview data was anonymized so neither the interviewees nor anyone they reference will be identifiable. The interview transcripts did not link interview data to questionnaire replies. To safeguard their anonymity, the final report will not include interviewees' full demographic characteristics.

### 3.7 Summary

The study was influenced by postmodernism and a mixed-methods approach was adopted as the study methodology. A combination of qualitative and quantitative instruments, such as questionnaires and interviews, was deemed appropriate. By using a carefully chosen purposive and random sample of respondents, the chosen methodologies seek to validate responses to the question of how important MET are at the secondary level in SVG is. The questionnaire and interviews provided the necessary information. Chapter 4 presents the data collection findings.

## 4. Data analysis presentation

### 4.1 Introduction

This chapter presents the data analysis of the results on the importance of MET at the secondary level in SVG. The research was guided by using the four research questions in chapter one, section 1.5.

With regards to the methods described in chapter three concerning the quantitative and qualitative analysis, the data will be presented under the following themes: 1. Awareness of MET in secondary schools; 2. Sustainability/Development; 3. Challenges/drawbacks of MET; 4. The value of MET at the secondary level; 5. The role of the government; and 6. Recommendation. The quantitative results will be arranged using graphs, pie charts, and explanations while the qualitative results will be displayed using descriptive writing.

#### 4.1.1 Interview respondents' profile

The qualitative findings will be presented under fictitious names (table 1) to safeguard the different participants' identities and anonymity. Table 1 presents the seven (7) participants that took part in the interview. To protect the anonymity of the respondents, different fictitious names were used as identified in Table 1. In this chapter, the exact words of the respondents will be in quotation marks and italics.

Table 1: *Interview participant's profile*

N	Fictitious name	Qualifier
1	<i>John Fred,</i>	<i>Customs officer</i>
2	<i>Roy Coudougan</i>	<i>Port Authority</i>
3	<i>Fred Jones</i>	<i>Deputy Principal of a secondary school.</i>

4	<b><i>Bran Hill</i></b>	<b><i>An undergraduate student in international affairs</i></b>
5	<b><i>Bobb whales</i></b>	<b><i>Commanding officer for marine arms force</i></b>
6	<b><i>Elton Bouy</i></b>	<b><i>CEO of Maritime world</i></b>
7	<b><i>Marianna Straker</i></b>	<b><i>Fisheries division</i></b>

## 4.2 Participants demographic

### 4.2.1 Gender and age group

Appendix 4 represents the total number of participants that took part in the questionnaires in terms of gender, age group, level of education, and occupation. From the gender profile, a total of 85 responses (56 % (n = 47) were identified as male, 42.9% (n = 36) were identified as female, while 1.2% (n = 1) preferred not to say. from the age group category. Participants aged 40-49 received the most responses, accounting for 34.1% (n = 49), 28.2% (n = 24) between the ages of 30-39, 20% (n = 17) the ages 50 and above, 14.1% between the ages of 20-29 (n = 12), and 3.5% (n = 3) between the ages of 12-19.

### 4.2.2 The educational level of participants and occupation

The education level of participants indicated that 1.2% (n = 1) was PhD level, 18.8 % (n = 16) was MSc level, 22.4 % (n = 19) was bachelor level, 34.1 % (n = 29) was tertiary level, 21.2 % (n = 18) was secondary level, and the other level was 2.4 % (n = 2). According to appendix 4, while 74.1% (n = 63) were employed, 5.9% (n = 5) were students, and 20% (n = 17) stated other. In regards to organisational positions, 6.3 % (n = 5) ranked between CEO and Associate Director, 12.5 % (n = 10) ranked between senior manager and associate manager, 28.7 % (n = 23) ranked between supervisor and entry-level, while 52.5 % (n = 42) held other positions as indicated in appendix 4.

From the list of participants, 34.1 % (n = 29) are associated with a maritime organization, while 65.9 % (n = 56) had no association with any maritime institution, as indicated in appendix 4

#### 4.3 Awareness of MET in the secondary schools

Secondary education and its curriculum can build the foundation of early maritime awareness (Edirisinghe et al., 2017). As stated in the literature review, lack of academic awareness contributes to low competency and while awareness, on the other hand, can contribute to seafarer competence, many people state that a career in shipping is required for a life at sea, which discourages young people from selecting shipping as an option. To guarantee safe, secure, clean, and efficient operations at sea, sailors must be well-educated, trained, able to obey directions, and manage hazards content (Basak, 2017). Early awareness of secondary level MET can reduce industrial challenges and contribute to the growth and development of the sector or SVG as a nation. While all of the respondents are aware of MET, they stated that general public awareness of maritime secondary education is low. However, six of the participants stated that it is not available at a secondary level except for one, but they all believe if MET is integrated into the secondary level, it will aid in raising public awareness of the sector as noted below.

Questionnaire participants were asked how many secondary schools offer MET in SVG. About a half of participants (47.06%) indicated there are no secondary schools offering maritime education and training in SVG, followed by “not sure” (26.47%), “do not know”(14.70%), “N/A” (5.88%), “All” (2.94%), and “1 (one)” (2.94%).

From the interview data, all of the participants were aware of MET and some stated that general public awareness of maritime secondary education is low, for example:

*“Yes, I am aware of MET in areas such as the fisheries and the territorial waters. However, I am not aware of any secondary schools that deal with maritime education and training within SVG. In terms of the curriculum in secondary schools, MET is not available”. (John Fred, Customs officer).*

Further, six of the participants stated that MET is not available at a secondary level except for one, relating to short-term fisheries training, which was found to be unsuccessful. Some efforts were identified in terms of integrating marine environmental issues into the syllabus. John and Marianna explain:

*“The ministry of agriculture and fisheries division recently conducted training for fishermen in the southern Grenadines. But other than these short terms training courses there is not any other long-term training being conducted in St, Vincent, and the Grenadines to bring awareness. (John Fred, Customs officer).*

*“Yes, I am aware, of maritime education, and training, we focus on safety at sea and fundamental fishermen training for new recruits at the fisheries department. I know for some time, now, we have been advocating the Ministry of Education to somewhat get fisheries education onto their curriculum but have been unsuccessful thus far. There are some aspects of the maritime environment that are included in the secondary curriculum. The CSET syllabus encompasses the marine environment as it relates to conservation, and ecosystem management”. (Marianna Straker, Fisheries division).*

Despite little evidence of MET at the secondary level in SVG, all interviewees believe if MET is integrated into the secondary level, it will aid in raising public awareness of the sector, said by Bobb and Elton as examples:

*“To a lesser extent, 40 % of Vincentians are aware of the industry. If MET is integrated into secondary schools yes it will bring awareness and can create employment locally,*



*regionally, and internationally”. (Bobb Whales, Commanding officer for marine arms force).*

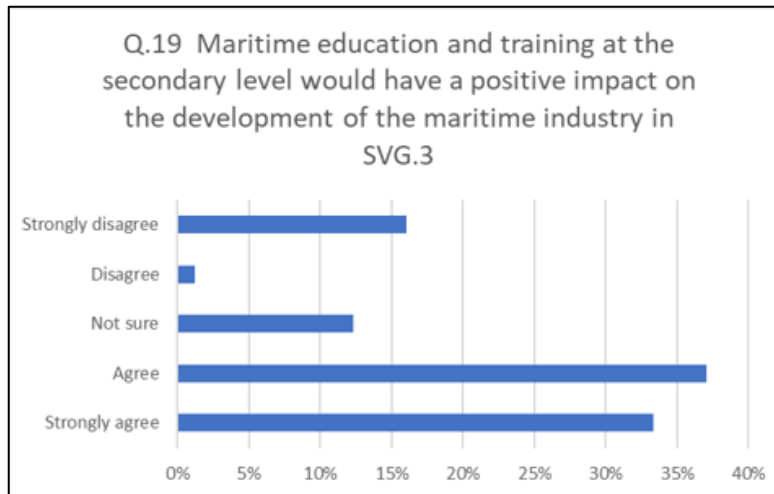
*“I am not aware of any secondary school in SVG that actually offers maritime training. (...) since you don't realize you need maritime training until you have a maritime job. But until that, they don't know maritime training is needed to gain a job. It will help to raise public awareness about the industry”. (Elton Bouy, CEO of Maritime world)*

These accounts indicate the opportunity for secondary MET in SVG to contribute to capacity building in the maritime industry in SVG. The next section addresses sustainability and development perspectives to this discussion.

#### 4.3 Sustainability and Development

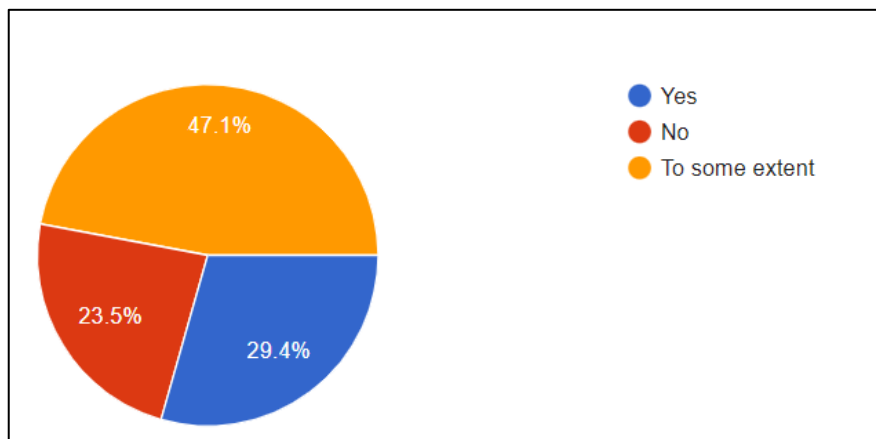
According to the interviews and questionnaire conducted for this study, there is some interest in sustainability and development in MET at the secondary level. Most respondents believe that secondary level MET sustainability and development is an extremely important topic for future generations of students to address as they address global issues confronting the maritime industry, such as the limited use of the blue economy to facilitate nation-building. As a result, secondary level MET should be an integral part of all formal education systems around the world (Watson, 2017). Secondary level MET provides sustainable knowledge to any nation's maritime industry. As a result, there is a high demand for sustainability and development of MET in SVG towards nation building. Most of the respondents from the questionnaire segment believe that secondary level MET will have a positive impact on the industry development, as depicted in figure 1 of the graph.

Figure 1: Depicting responded support of the impact of MET on the development of the maritime industry in SVG



In support of the literature, the respondents from the questionnaire were asked if they were aware of the maritime industry and job opportunities in the industry. The results show there is a lack of awareness as it relates to knowledge of the industry where job opportunities are concerned. The researcher believes this will definitely have an effect on the sustainability and development of the industry. The result showed that 47.1 % (n = 40) said to some extent, 29.4 % (n = 25) stated yes they are aware, while 23.5 % (n = 20) said no to the question. This information is reflected in figure 2.

Figure 2: : Illustrates the awareness of the maritime industry and awareness of job opportunities in the sector



Sustainability is critical to the industry's survival and growth. The researcher is also sure that adding MET to the curriculum at the secondary level will give students real

chances to use sustainability principles and content standards to aid in industry development. As far as sustainability goes, only two of the respondents in the interview segment said anything about it, as shown below:

*“But in terms of sustainability, it is important that for instance, I believe, we should focus on specific areas of development and enforce conservation on certain species that are more at risk than others. But it has to be enforced actively enforced rather than waiting for it to come to us it should be taught. But, if it is taught at the secondary level it is the younger people who would make the change, rather than the person who's already established and who believe that what you're doing is right”.*  
**(Fred Jones, Deputy principal of a secondary school).**

Another respondent added that there is the prospect for sustainability through the blue economy, the port facility yet to be constructed, and cruise tourism, all national development that calls for MET:

*“You might find a small program to sensitize people through the ministry of agriculture and fisheries to help in sustainability, but there is no program to say and no home for curriculum in maritime education and training. However, the Ministry of Agriculture because of our ocean resources is now moving toward a blue economy. I believe they will need to train people for it in maritime education”. ‘The modern port that was launce just started will change the scope and opportunity for things for st. vincent”.*

*“Yes, as simple as I will say the dynamic of st. vincent, as relates to cousinship sailing vessel training, may lead to local investor developing tourism site and so”.*  
**( John Fred custom officer).**

Some of the interview participants stated that the development of the maritime sector and nation through MET at the secondary level is necessary. According to Coudougan

and Straker, the focus should be on the use of the nation's natural resources to develop the industry, as stated below:

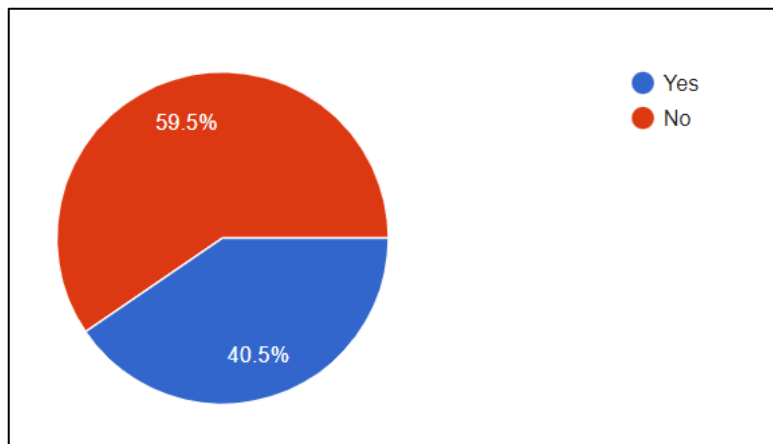
*“Human resources need to be trained and develop. There are also a lot of resources to be exploited or developed, fisheries, and sea moss farming. The conch and lobster industry is developing because foreign company coming in and setting up. Local and foreign investors can creat market. If we educate our people on different ways of doing things they can develop their capacity creating huge markets”.*( **Roy Coudougan, port authority**).

Another participant, in relation to national development, even stated some of the projects that may necessitate MET at the secondary level:

*“The new port facility is to be erected at Rose place in Kingstown. The Rain forest seafood deals with exporting lobsters. There is also a drive by the ministry of agriculture and fisheries to have the blue economy jump start. The fisheries will provide training in regards to the processing of fish.”.* ( **Marianna Straker fisheries division**).

When asked if they wanted to work in the sector, 40.5% of questionnaire respondents said yes, while 59.9% said no, as shown in figure 3. For an industry with little awareness, 40.5% is a sign that there is a prospect for development and sustainability for the future industry.

Figure 3: Illustrates participant who have an interest in persuing a career in the sector



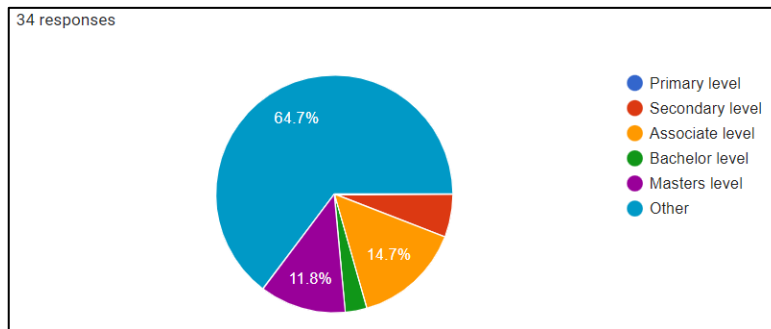
To facilitate the sustainability and the developmental aspect of future nation building as it relates to secondary level MET, the respondents were asked to give a reason for their answer as it relates to question 10 of the questionnaire to see the reason they give for or against wanting to work in the industry. Here is a brief summary of some of the answers given: (see appendix 5's bulleted list).

*“MET should be part of the school curriculum because it offers many opportunities for development, according to one students who took part in the survey. Most of the other participants spoke very highly of MET and gave reasons for and against wanting to choose it as a career. From a positive, supportive viewpoint, it can be stated that it's a fulfilling career that sparks an interest and can help to extend knowledge’. It can develop individuals and workgroups and foster growth. On the negative side, only a few people stated that they were uninterested in the industry. Some of the reasons given are that they are either retired, work in a different field, or have no interest in the maritime industry”.*

Most respondents spoke positively about the industry, despite the fact that 50.5% stated they would not choose it as a career path. Also noteworthy is that the majority of participants have never received MET before. Figure 4 depicts the responses of

those with training and those with no prior training, as well as the level of education attained through training.

Figure 4: Illustrates the education level of participants who had MET training before



According to this account, sustainability and development pique the secondary level MET towards nation-building since it addresses the nation's progress. SVG needs a lot of projects and ideas that are already in place to use the natural resources of the industry to boost national growth. The subsequent section focuses on the challenges and drawbacks of MET.

#### 4.4 Challenges and drawbacks of MET

MET faces various obstacles, thus retaining qualified maritime officers and engineers is at risk (Edirisinghe et al., 2017). The potential drawbacks to MET can be significantly overwhelming as well. These challenges and drawbacks have hampered the industry in many ways. Some of the respondents believe the implementation of secondary level MET in SVG can help to combat some of the future and present challenges of MET, not just for SVG but for other regional partners as well. According to (Cohen) 2006, Several major stakeholders do not comprehend the potential and role of the maritime industry. This makes it harder to implement MET in secondary schools and makes it harder to promote the industry to young people.

While some people were not able to speak about the current trend or problem due to a lack of knowledge, the questionnaire segment reveals that this could be because of a

lack of exposure to MET, because when asked the participant if they ever received MET before, 63.4 % (n = 52) answered no, while 36.6 % (n = 30) answered yes. (See appendix 6).

According to the interview data, some participants stated that having no MET at the secondary level is a challenge to begin with:

*"The first challenge is first and foremost not having MET in secondary school... and how do we get it onto the curriculum?"*. ( **Bran Hill, an undergraduate student**).

Furthermore, another participant mentioned that it is not on the curriculum and that the booklist does not address MET.

*"The challenges I would say, well, if it is not in secondary education or the curriculum for me, that could be a challenge. We basically need to see the need, the concentration, and the focus is not basically enshrined into the curriculum. I have children in secondary schools and when I see the booklist it does not normally speak to maritime. A lot of people are not really exposed to maritime and maritime operations"*. ( **John Fred, custom officer**).

Another participant saw the challenges from a different perspective and attributed them to the actions of those who don't care about the environment. MET's conceptualization by some is another obstacle. Many people associate maritime with fishing, as shown below:

*"Well, to begin with, there are still some people that have the belief that we can pollute the land and it is safe, but do not realise that this pollution gets into waterways and damages marine life and the maritime industry in general." "It is challenging to enforce the regulations." "Therefore, secondary education MET can be used as a platform to educate our people about the effect of pollution on our*

*marine environment." Also, the challenges that we face, people would regard maritime generally as fishing". (Fred Jones, deputy principal of a secondary school).*

One participant said people only see MET as fishing, while another said overfishing needs regulation and secondary-level education.

*"Some species of fish are not seen as before, like the pal fish species. This is a cause for concern. Species like sea turtles, even if there are laws against catching these turtles, the population is not aware and this is a problem. To avoid overfishing, regulations are needed to protect these species. Therefore, maritime education and training may be needed and should be advocated at the secondary level."*  
*(Marianna Straker, Fisheries division).*

Participants were asked about drawbacks and trends that call for MET at the secondary level. One participant stated:

*"A drawback person may have a job in education but not in seafarers' education. I don't know of any current trend that may call for MET at the secondary level".* Not too sure". *(Bran Hill, undergraduate student in international affaires).*

While there are many obstacles to national development, there are also many drawbacks that necessitate MET at the secondary level as far as the government is concerned, as stated below:

*"In terms of the drawbacks, I don't think the government is exploiting it. it rests in one department which is the maritime environment. I don't think it is proper research and looking for all the evidence to support that form of development. It comes like what 'happen" "happen" if a man decides to choose his career because he was expose by somebody, I think that is the direction he goes. But I think as an island man we gro,*



*we go to school, we do the basic math, English, do other trade subject but never any subject area concerning the marine environment”. The government need to do more. (Roy Coudougan, port authority).*

Further in the interview, the same participant, went on to discuss the disadvantages of MET.

*“A trend is that not very many persons are exposed to the industry very minu amount. Lack of knowledge, experience, and training”. (Roy Coudougan, port authority).*

Another participant thinks that our human capital and natural resources are a significant drawback, as stated:

*“Some of the drawbacks we have here in SVG is a lack of resources. We do not have the resources, we need to have the human resources to deliver that service, and I don't think we have the qualified professionals to deliver that service at this moment”. (Elton Bouy, CEO of maritime world).*

Another drawback is convincing the government to put MET into schools as a necessity to reach our young people.

*“We need to get MET into school to reach the children at a young age but it had to get MET into schools because the ministry of education already has a packed program and packed curriculum to follow”. (Marianna Straker, Fisheries division).*

These accounts suggest that many challenges facing the industry can be addressed by secondary level MET with the intervention of the government. The next section addresses the value of MET at the secondary level.

#### 4.5 The value of MET at the secondary level.

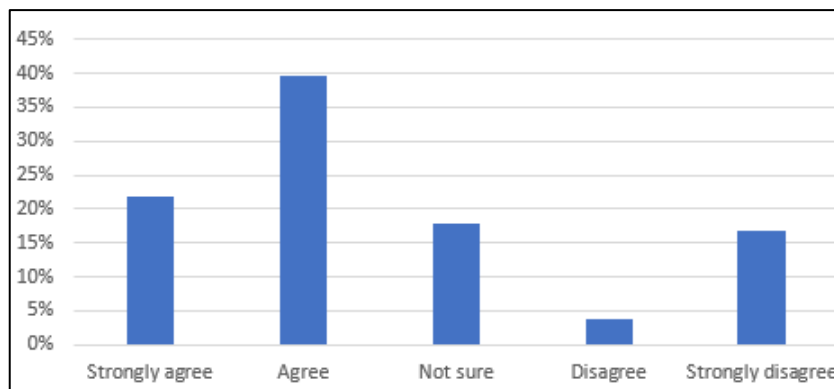
The findings from the interviews and questionnaire as it relates to the value of MET to SVG showed that MET has many benefits to offer SVG as an island nation.

The respondents from the questionnaire were asked to indicate their agreement level as to whether MET at the secondary level offers value to the maritime industry in SVG. Table 2 and Figure 5 below highlight the responses with 40 % agreeing that secondary MET brings many benefits as opposed to 3 % who disagree.

Table 2: *Indicating the respondent choice on the value level MET offer at the secondary level*

Strongly agree	22%	17
Agree	40%	31
Not sure	18%	14
Disagree	4%	3
Strongly disagree	17%	13
		78

Figure 5: *Respondents Indicate the value level MET offered at the secondary level*



Two interviewees briefly mentioned that MET at the secondary level has benefits.

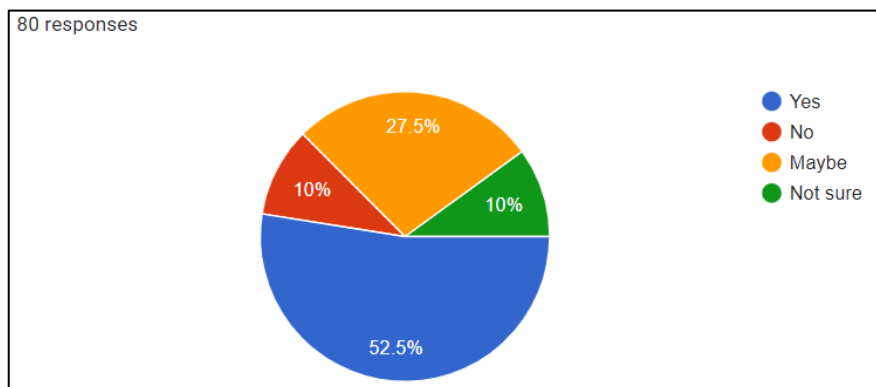
*“MET it is something that is basically lacking in schools and when I say schools, I don’t just say at the secondary level Maritime is dynamic, it’s not just to one specific*

*area but it has a lot of benefits and it can create a lot of employment and diversification". (John Fred, custom officer).*

*"I alluded to some of those benefits and specific job opportunities, in terms of safety officers, inspections, inspectors of ships, engeneering, navigators, including conservation in accounting. And it seems as a maritime is such a broad base topic dealing with everything on the sea, but also on the land, it diffinitely will offer value". (Fred Jones, deputy principal of a secondary school).*

In seeking to understand the value of MET, the respondents were asked if it would be beneficial to have a fundamental understanding of the subject at the secondary level. The questionnaire data indicates that 52.5 % (n = 42) answered yes, 27.5 % (n = 22) answered maybe, 10% (n = 8) answered not sure, and 10 % (n = 8) answered no, by the respondants as illustrated in figure 6 below.

*Figure 6: Depicts the participant's response as it relates to having a foundation knowledge of MET at the secondary level being beneficial to them.*



From the above questionnaire data, forty-two (42) responses were in the affirmative. In answer to the above question, they were further asked to state the reasons for their answering "yes." (See appendix 7), in bullet form, which contains some of the answers given. Below is a brief summary:

*SVG is a marine/maritime base country. The country depends greatly on shipping for the import of food and supplies, transportation, and other economic activities. Schools should make students aware of the opportunities in the maritime industry and focus their students on the maritime field. There are agricultural programmes offered in some secondary schools. Similar attention ought to be given to maritime education.*

This account reveals that secondary level MET in SVG will benefit the maritime industry and the country as a whole. The next section discusses the government's participation in secondary-level MET.

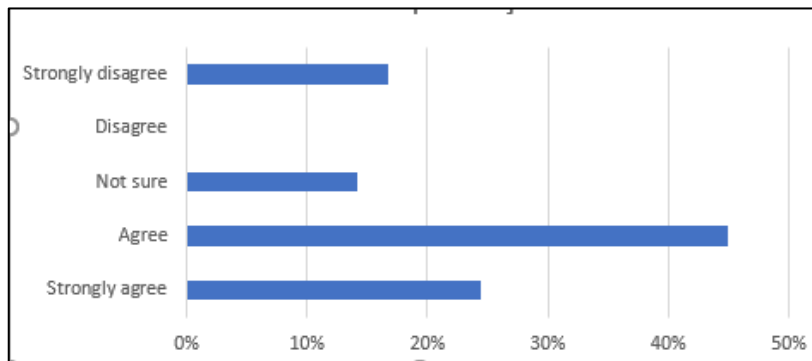
#### 4.6 The role of the government

Some risky measures may be needed to persuade governments to include MET in secondary school curricula. Some daring steps may necessitate persuading governments to include MET in secondary school curricula (Edirisinghe, 2017). Most respondents in the questionnaire believe that national policies can help the SVG maritime industry and the country's development. As shown in table 3 and figure 7 below:

Table 3: *Level of agreement on whether national policies can aid in the development of MET and SVG.*

Strongly agree	24%	19
Agree	45%	35
Not sure	14%	11
Disagree	0%	0
Strongly disagree	17%	13
		78

Figure 7: Depicts the level of agreement on whether national policies can assist MET and SVG.

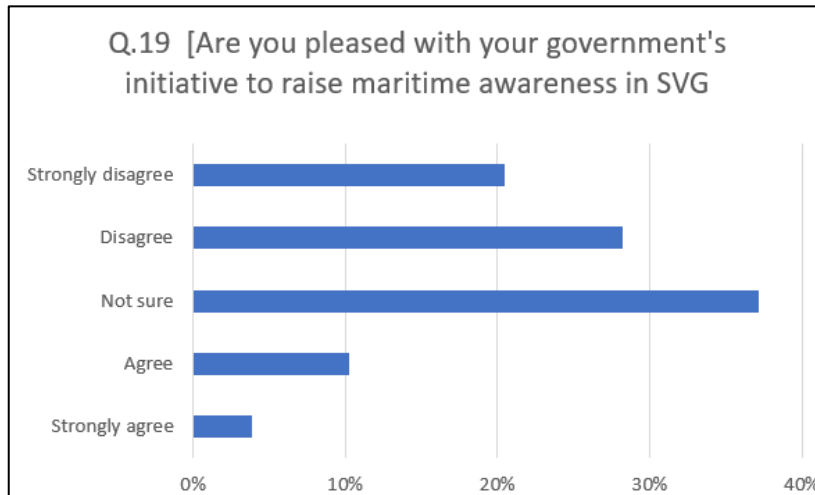


Despite the fact that 45% of questionnaire respondents agreed that national policy can assist Met and SVG's national development, when asked if they were satisfied with the government's efforts to raise awareness, 28% disagreed and 37% were unsure. Table 4 and Figure 8 show the respondents' levels of agreement and disagreement.

Table 4: Depicts participants' responses with regard to the percentages who are pleased with the government's effort to raise awareness in the maritime sector.

Strongly agree	4%	3
Agree	10%	8
Not sure	37%	29
Disagree	28%	22
Strongly disagree	21%	16
		78

Figure 8: Depicts participants who are pleased with the government's effort to raise awareness in the maritime sector.

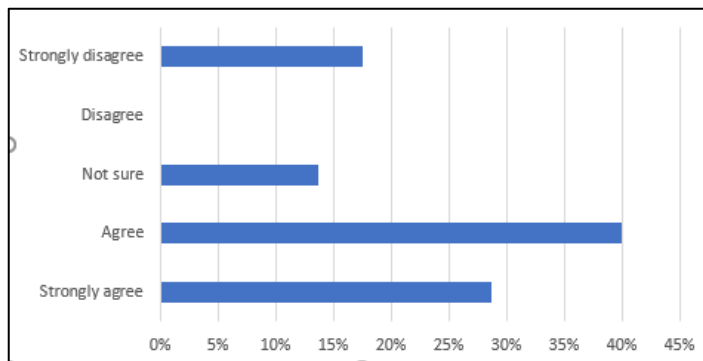


The questionnaire respondents were also asked if the government should implement secondary level MET. Nearly half of those polled agreed, 29% strongly agreed, and 0% disagreed. Table 5 and Figure 9 show their response:

Table 5: *The response. The government of SVG should implement secondary level MET.*

Strongly agree	29%	23
Agree	40%	32
Not sure	14%	11
Disagree	0%	0
Strongly disagree	18%	14
		80

Figure 9: The response. The government of SVG should implement secondary level MET.



The government's role in MET at the secondary level is critical. However, the interview segment revealed that the majority of participants were unaware of the government's role in MET at the secondary level. On the other hand, the majority of participants believe that the government should be more involved in raising awareness of MET in SVG and secondary schools. Some participants are unsure of which office the Maritime Administration falls under. Following are some statements from some of the respondents based on the interview findings:

*"I am a bit off here. I think it is under the prime minister's office." ( John Fred, custom officer).*

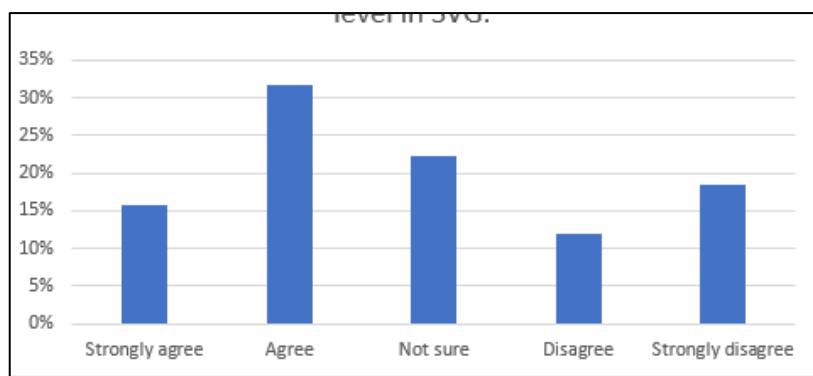
*"The government service is currently under the prime minister's office. The Coast Guard comes under the prime minister's office regarding national security. But other than that, I am aware that the Ministry of Agriculture, Division of Fisheries, does training for fishermen, registration of fishermen for fishing licenses, and so on and so forth. So, I will say the Ministry of Agriculture and Fisheries". ( Fred Jones, deputy principal).*

The questionnaire respondents were asked if they believe the government plays a significant role in secondary maritime education. The level of agreement among respondents is shown in Table 6 and Figure 10.

Table 6: Indicates whether the government plays a significant role in MET at the secondary level.

Strongly agree	16%	12
Agree	32%	24
Not sure	22%	17
Disagree	12%	9
Strongly disagree	18%	14
		76

Figure 10: indicates whether the government plays a significant role in MET at the secondary level.



22% of questionnaire respondents were unsure whether the government played a significant role in MET at the secondary level. However, respondents from the interview believe that the government is responsible for MET at the secondary level, as stated by Hill, Whales, Bouy, and Straker as an example:

*"I would say that the government is responsible for agriculture and ensures that they are instilled into the education system. So I will say the government should be responsible for MET at the secondary level". (Bran Hill, undergraduate student).*

*"The government through the ministry of health looks at climate change however the program needs to be implemented at the secondary school level". (Bobb whales Commanding officer of marine arm force).*

*"SVG Department of maritime education is responsible for maritime education because they are the points of contact for the STCW 95. They are responsible for*



*coordinating and auditing institutions to ensure that whatever institution delivers maritime training is done in accordance with the convention". (Elton Bouy, CEO of Maritime world).*

*"As it relates to maritime, yes, we have the maritime industry. But how we are set up here in the civil service, it's more like a cross-sectoral So these ministries overlap. There is no one particular ministry that deals with maritime and the sustainability of resources. So all of us have to work together to get the job done". (Marianna Straker, fisheries division).*

This account demonstrates that the maritime administration is in charge of MET and ensuring that all MET-related programmes are operating in accordance with STCW standards. However, various ministries such as fisheries and forestry all play an important role in MET as well as in a collaborative effort to effectively build the industry. The following section is about recommendations.

#### 4.7 Recommendation

Respondents made two recommendations to promote the importance of secondary level MET in SVG. Concerns were expressed about awareness, the use of natural resources, future research, and the role the government should play in secondary level MET in SVG.

It was stated that the government should invest in secondary level MET in order to raise public awareness and development of the industry. Participants also believe that the government should do more to make better use of educational opportunities in SVG by enacting policies pertaining to MET at the secondary level. According to Bobb Whales: *"The entire blue economy is underdevelopment and cruise tourism in St. Vincent is underdeveloped." The government needs to invest more in secondary education and develop the industry so young people can see the benefits of the industry*

*and gravitate toward the maritime sector". (Bobb Whales, commanding officer of the maritime world).*

Roy Coudougan, on the other hand, emphasised a similar project or study to the researcher's. He stated: *"I think implementing it may require a study, such as what you are doing, and getting the findings and putting a project together. You have demonstrated to the government that this is what is available." "By presenting a proposal to the government and guiding them with proper studies, you can actually make a case to the government to start a pilot project at school because there will be positive returns." The public has to be sensitized. Government policies should be implemented as well. "(Roy Coudougan, port authority.*

Based on these findings, it is clear that the government must play a significant role in bringing MET to the secondary level in SVG.

#### 4.8 Summary

This chapter presented the findings from the interviews and questionnaire in both qualitative and quantitative formats. Representatives from the coast guard, port authority, customs department, marine administration, and education sector were questioned to learn more about the importance of MET to SVG. In-depth interviews were conducted with professionals from a variety of fields to determine what they knew about secondary-level MET in SVG and what they thought about it.

The findings from the qualitative and quantitative data were organised into several themes: awareness of MET at the secondary level; sustainability and development; challenges and drawbacks of MET; the value of MET at the secondary level; the role of the government; and recommendations.

The findings are discussed next.

## 5. Discussion of findings

### 5.1 Introduction

The previous chapter presented the analytical findings and data. The findings, conclusion, limitations, and recommendations will be discussed in this chapter. The four research objectives were applicable to the study. These objectives were met by answering each research questions.

#### 5.1.1 Research question one

Research question one (Q1): *Is maritime education and training available in public schools, and if so, to what extent?*

The analytical data findings from both the questionnaire and the interview were used to reflect the participants' perspectives in answering the research question. Important details were learned, such as whether MET is taught in public schools and, if so, how much. According to the literature evaluation, SVG has a strong educational system that is regulated by the Educational Act of 2005. This Act mandates that all children have access to quality education. While this is a positive step in the right direction, the data shows that the secondary school curriculum in SVG is not oriented toward MET. To begin answering the first research question, the data showed there is little general knowledge of MET among SVG citizens. Not only does the general public lack MET, but it is also inadequately covered in SVG's public school curricula. Vincentians were not only unaware of MET at the secondary level but also had no knowledge of it being available at any secondary schools other than for short-term fishing training, which was found to be ineffective. According to the findings, some aspects of MET are possible at secondary school, but the findings reveal, as stated earlier, that MET is not on the curriculum.

According to the findings, a sizeable section of the populace is ignorant of MET, which has had a major influence on the nation's marine economy. The majority of respondents to the study (47.06%) said there is no MET in secondary schools. The usage of natural marine resources is not well understood by many because to a lack of early MET at the secondary level. It has been demonstrated in some instances that these resources are underutilised and occasionally even misused. Many fishermen disregard rules like fishing laws because of a lack of industry education. Due to the lack of proper enforcement of regulations, some of our natural resources have been depleted by overfishing. These have, in some ways, had a detrimental effect on the maritime sector.

The findings also showed that Stakeholders' efforts to incorporate MET into the secondary school curriculum have been futile. According to the findings, respondents who claim it is not being considered at the secondary level believe it can have a significant impact on the country's economic growth as well as help to improve the maritime sector if it is considered at the secondary level. However, due to a lack of awareness, it is having a negative impact on the country. The SVG marine ecosystem is vast, and fishing is popular. All positive comments from the findings indicate that opportunity for growth is unavoidable if MET is properly utilised at the secondary school level and optimal use of our natural resources and the human element are correctly and properly harvested. Based on the findings of this study, the process of introducing MET at the secondary level can have a significant positive impact not only on the maritime sector, but also on SVG and regions within and outside its diaspora. By exposing the children at an early age through maritime education, they will have knowledge as it relates to how to treat our resources, the importance of the resources, and the sustainability of the resources. And MET at the secondary level can covers a lot of ground. The author believe that exposing children to this type of education will broaden their perspectives and provide them with alternatives or options in terms of livelihoods and career paths in the industry.

It was also revealed that if MET is to be made available in SVG secondary schools, the government must play an active role in the implementation process through other ministries. This could greatly aid in the support and promotion of maritime growth and awareness among Vincentians.

### 5.1.2 Research question two

Research question two (Q2): *What is the value of implementing maritime education and training at secondary public schools in St. Vincent and the Grenadines?*

Education holistically adds value to any nation. However, MET at the secondary level, if implemented, will also have great value for SVG development. Statistics from the questionnaire's data showed that secondary maritime education and training add value to the maritime industry in SVG.

The findings also reveals that all interviewees agreed that MET will add value to the maritime industry's sustainability. According to the results of the findings, having a school in SVG to teach and train people in MET can lead to the industry's sustainability. The research revealed that there were around 3,000 sailors employed on ships before the COVID-19 outbreak. Every five years, these 3000 seamen are to receive training. since SVG's colleges and institutions do not have METIs or MET. As noted in the literature, seafarers must travel to one of the neighbouring nations to complete their training; likely Jamaica, which is more established. This presents difficulties and has an effect on the SVG economy. If MET is made available in secondary schools, it may add value to the industry by educating the human element, which gives back to society. Not only will secondary level Met offer value by creating work prospects, but it will also give seafarers the chance to join at the officer level.

St. Vincent and the Grenadines is an island nation with greater oceanic space than terrestrial space. There are also a variety of concerns pertinent to island states for

which the marine environment is significant for multiple reasons, including: 1. economic worth 2. Food Safety 3. Trade. Fourth, transportation 5. maritime protection, therefore, it is essential that our human resources improve their ability to manage this extremely valuable asset. The sooner one could acquire knowledge in this field, the more advantageous it would be for them.

The data findings also revealed, that the maritime environment and industry is one of the least discussed subjects in contemporary society. Increasing its benefits, such as its aquatic environment, food provision, food transportation, and human impact, is required to preserve the maritime environment's holistic equilibrium. Secondary level MET adds value by creating more options for employment. It will make people more aware of the maritime sector and how important it is to SVG's economy.

According to the findings, people are very interested in MET and MET at the secondary level. Some Vincentians express a desire to be aware of the industry since high school. And they believe that having that foundational knowledge of MET from a second level would have mentally prepared them for the journey. Learning about maritime can help people choose different career paths, industries, and how the maritime industry operates on a daily basis, which is valuable in and of itself.

Moreover, the finding suggested young people have an interest in joining the coast guard at an early age. They feel that if they had known the basics of MET in the second grade, they would have been better prepared mentally for the voyage. However, this is not merely a remark on the Coast Guard in general. Knowing more about the maritime industry can help people in many ways, including opening their eyes to new career paths, industries, and the daily operations of the maritime industry, which is valuable in and of itself. These findings indicate that MET at the secondary school (public) level adds value and contributes to the industry's long-term sustainability.

### 5.1.3 Research question three

Research question three (Q3): *What national development and challenges called for MET at the secondary level?*

The findings showed that MET at the secondary level would have a positive impact on nation-building in SVG. It also showed that national policy can assist the SVG maritime industry and the country's development. Furthermore, it is believed that if contemporary issues are addressed through national policy, it may have a significant impact on the development of a nation's secondary-level education. But this does not mean that there will not be challenges that may require this level of education to solve. The fact that there is no policy for secondary level MET is a challenge that warrants MET at the secondary level. From the findings, it claims the government needs to put these policies in place because maritime is a broad base and has its importance to nation building.

The findings also looked at the endangered species as a national challenge that may call for MET at the secondary level. It could be stated that some of our resources, particularly fishing resources, the conditions in the fall in the abundance of some of the species, and the way these resources are managed and cared for by Vincentians, pose a great challenge that may warrant secondary level MET. This shows a lack of awareness of the biological and ecological importance of these particular species. The data reveals that people are more concerned about taste and getting the product than the endangerment of species. Because of these challenges now, lawmakers and policymakers now have to look to enact certain regulations and policies to prevent the extinction of some of the remaining species of fish. These are some challenges that call for early MET in secondary school for future lawmakers to consider according to the findings.

Furthermore, if children are exposed to the importance and the different ecological roles that each species plays, it will hit home to them what equates to the sustainability of these species. Implementing these ideas and developing the educational system may require funding. Another important finding that poses a major challenge is that there are not enough qualified people to sustain the sector effectively. Maritime programmes throughout SVG in all secondary schools will help in the development of the sector.

As it relates to development that calls for MET at the secondary level, the findings showed that most of our marine infrastructures, like the tourism sector, fisheries, port authority, and maritime department, are very minute in themselves and need to be developed. The port is getting ready to launch a new project because it is currently too small to manage the growth of the resources that are available right now. Additionally, cruise tourism in St. Vincent is underdeveloped. Cruise ships are looking for skilled individuals, but SVG is unable to provide this level of training. As a result, seafarers will join the ship at the lowest level since they are untrained. The entire blue economy is under development and, based on the findings, the Ministry of Agriculture is launching a programme to jump-start the blue economy.

Further, the findings reveal that providing a school in SVG will improve opportunities for growth moving ahead. Keeping in mind that, as described in the literature, secondary education is divided into two parts, even though it was clear from the findings that starting earlier can also have big effects, it was also evident that the second stage of secondary education might be the best time to use MET at the secondary level.

The government needs to invest more in secondary education to develop the industry so young people can see the benefits of the industry and gravitate toward the maritime sector. Human resources are to be developed to facilitate the operation of administrative duties of these ministries. There are also a lot of resources to be exploited or developed; fisheries, grenadines, and sea moss farming. The conch and



lobster industries are developing because foreign companies are coming in and setting up shops. It was done by locals on a small scale, but with a foreign investor. These companies would buy the product from the locals to export overseas. If we educate our people on different ways of doing things, they can develop the capacity to create huge markets. Secondary level MET can provide a stepping stone for developing future entrepreneurs for the industry. The findings indicate that the developments and challenges are numerous enough to warrant MET at the secondary level in SVG.

#### 5.1.4 Research question four

Research question four (Q4): *What role does the Government play in maritime education and training at the secondary school level in SVG?*

In terms of the government's role in secondary MET, it was discovered that, while the government is responsible for the overall affairs of the country, various ministries within the government may have a significant role to play in secondary MET. As a result, no single ministry bears responsibility. While the maritime administration is the department within the government service responsible for the conduct and coordination of MET, other ministries within the maritime sector, such as the port authority and coast guard, also play an important role in MET. The findings revealed that some ministries in the civil service are more cross-sectoral, with different departments dealing with the beaches and the marine environment, while fisheries deals with fishing and fishing resources. The resources of the fishing industry are found in the sea. There is also a forestry department that is responsible for coastal forestry. They are also involved in some aspects of the coastal environment. As a result, there is no single ministry; these ministries overlap. As a result, all of the ministries involved must collaborate, and the government must play a role in ensuring that each department functions properly.

As it relates to secondary MET, each department may be required to provide material to guide the curriculum at the secondary level as a stepping stone. However, regarding maritime training, the maritime SVG Department is responsible for MET because they are the points of contact for the STCW 95. Because the maritime administration is the point of contact for that convention, they are somewhat responsible for MET. In terms of actually conducting maritime education, it is not the maritime department solely. They are in charge of coordinating and auditing institutions to make sure that maritime training is done in line with the convention wherever it is given.

The information gleaned from the interview and the questionnaire findings supports the hypothesis that the SVG government plays a passive role in the promotion of MET at the secondary level. The research findings indicate that the government is not doing enough to assist the maritime industry in implementing secondary-level MET. The findings also show that the government is unaware of the full benefits that can be obtained from the industry if secondary-level MET is implemented in public schools.

A number of points came out of the findings that show that the government is not doing much. They are not sensitising the public about the industry through their programs. More discussion via the media and advertising is needed. The promotion of the industry from the findings is not on the government's agenda, in contrast to other areas of education career aspects such as law and agriculture. There is not enough attention being put on maritime issues by the government.

The finding further suggested that MET must be approved and included in the secondary school curriculum by the government. The government must create policies relating to MET in SVG. The role of the government, through the ministry of education and the maritime administration, is to combine and work together to create policies for the implementation of MET at the secondary level. Due to these findings, the researcher have come to the conclusion that the government does not place significant importance on the establishment of MET in public secondary schools.

## 5.2 Conclusion

This study's goal was to shed light on how crucial MET are in SVG secondary education levels. The literature review sheds light on the importance of secondary education to any nation's development. However, little data on Caribbean secondary school MET was found. The study was inspired by postmodernism and employed a mixed methodology process of qualitative and quantitative research using questionnaires and interviews. Specifically, the study was geared toward understanding the importance of MET at the secondary level in SVG. To examine, investigate, and analyse the impact it may have on SVG, what contribution the government makes as it relates to secondary level MET, and what current issues in the industry can contribute to MET leading to sustainability if implemented.

The studies further showed how MET in SVG, MET at the foundational level of secondary education may aid young people in understanding the significance of the maritime business. Its quirks, how it functions, and its potential may encourage them to choose it as a career. In addition, it has helped dispel the misconception that MET is not a practical career choice for the majority of people in SVG. The study's findings have given a greater understanding of the worthwhile topic for investigation and direct talks with the government, the MOE, and the maritime administration toward the implementation of MET at the secondary level in SVG, according to the research. The interview analysis has shed great light on awareness, development, challenges, and opportunities for secondary-level MET sustenance. The tool aims to gather information from maritime experts from various departments along with the ministry of education as to the importance of MET at the secondary level in SVG. By using statistics to look at the information from the questionnaire, the study's goals were met and the hypothesis was confirmed.

First, the research identifies the level of awareness and the impact that lack of awareness has on the maritime industry, the educational system, and the nation as a whole. It further addresses the availability of MET at the secondary level. The result of this is that there is little awareness and availability of MET in secondary schools and in St. Vincent as a whole.

Second, the researchers concluded that MET at the secondary level can bring sustainability to the nation and that, if so, development is inevitable. It also points to a development that calls for MET at the secondary level.

Thirdly, it investigated whether MET at the secondary level in SVG has value to the nation and its development.

And last but not least, the study looked at the government's role in MET at the secondary level. The study reveals that more needs to be done by the government with respect to MET at the secondary level.

SVG has a diverse marine environment and maritime potential. The local population, on the other hand, is unaware of the industry's potential. As a result of the research, secondary level MET can be a solvable point for the growth and development of the maritime industry if implemented in SVG secondary schools.

### 5.3 Limitation

While conducting this research, the researcher encountered a number of limitations, all of which hampered the research in some way. The research location was SVG in the Caribbean. It was challenging to obtain literature on the study topic from SVG and the Caribbean region as a whole. Also, restricted access to information by some universities and academics restricts access to pertinent information that could have been vital to this research. Most of the papers necessary to conduct this research were

not available. Because this was the first time such a study had been conducted in SVG, the data gathered was limited. In general, finding information on MET at the secondary level in the Caribbean region was difficult. Therefore, literature from western countries was used and was not totally relevant to SVG or the Caribbean region.

Another limitation was travel mobility restrictions and time limitations. Because of the geographic location of the research area and the constraints, it was difficult to travel to SVG to conduct this research. As a result, web-based electronically formatted questionnaires and structured interviews were done online to reach participants instead of face-to-face interviews.

Another limitation was the difference between the time zone of the researcher and the time zone of the research area, which posed a tremendous problem in scheduling interviews.

An effort to reach vital people from the maritime administration, Coast Guard, and educational institutions was a challenge. The data collection was conducted over a period of three months, which presents a time constraint. The metrics used to collect data helped solve a lot of the problems that came up during the research.

#### 5.4 Recommendation

After reviewing the existing literature and analysing the empirical data, this study has uncovered new avenues for future research. Due to its limited scope and depth, however, a comprehensive method of collecting statistics was not feasible. More in-depth research is suggested by the researcher.

Future research might examine the quality of training done by the SVG Coast Guard, the fisheries department, and the port authority to construct a secondary MET curriculum which must be guided by the MOE and the maritime administration. The

researcher suggests that these departments work together to make a more complete plan that targets both high schools and adults.

A further recommendation is for the government and other maritime-related departments to look into training for SVG citizens. This would give the country more expertise in the field, which could then be shared with public schools to train qualified people for future MET at that level.

Secondary education in SVG consists of a seven-year span, with five years spent in secondary school and two at the tertiary level. Therefore, the researcher suggests that secondary level Met begin at either the first or both levels. The first five years may consist of foundational MET, while the final two years may be comprehensive per STCW. Thus, by the time students reach the tertiary level, they will have acquired sufficient industry knowledge to support their studies. This can be achieved through government policy and initiatives from stakeholders. This type of research should not be limited to a single group when it comes to education, because education is for everyone who is eligible to receive it and affects everyone. For this reason, every citizen of SVG who participates in this research is as valuable to their nation as secondary level MET is to the maritime industry.

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## Appendices

### Appendix 1

#### Interview consent form



|

Dear Participant,

Thank you for agreeing to participate in this research survey, which is carried out in connection with the dissertation which will be written by the interviewer, in partial fulfillment of the requirements for the degree of Master of Science in Maritime Affairs at the World Maritime University in Malmö, Sweden.

**The topic of the Dissertation is the importance of maritime Education and Training at the secondary school level in St. Vincent and the Grenadines.**

The information provided by you in this interview will be used for research purposes and the results will form part of a dissertation, which will later be published online in WMU's digital repository (maritime commons) subject to final approval of the University and made available to the public. Your personal information will not be published. You may withdraw from the research at any time, and your personal data will be immediately deleted.

Anonymised research data will be archived on a secure virtual drive linked to a World Maritime University email address. All the data will be deleted as soon as the degree is awarded.

Your participation in the interview is highly appreciated.

Student's name: Gordon Kevin Charles

Specialization: Maritime Education and Training (MET)

Email address: w1904708@wmu.se

\* \* \*

I consent to my personal data, as outlined above, to be used for this study. I understand that all personal data relating to participants is held and processed in the strictest confidence, and will be deleted at the end of the researcher's enrolment.

Name: .....

Signature: .....

Date: .....

## Appendix 2

### SEMI-STRUCTURED INTERVIEW QUESTIONS

1. Are you aware of maritime education and training?
2. Are you aware of any secondary schools in St. Vincent and the Grenadines that provide maritime education and training? If so, at which secondary schools and at what levels is MET offered?
3. How aware do you think the population of St. Vincent and the Grenadines is of maritime education and training?
4. Who is responsible for maritime education and training in St. Vincent and the Grenadines? What role do they play?
5. Do you believe that integrating marine education and training into secondary schools will aid in raising public awareness of the sector in SVG?
6. What are the benefits and drawbacks of MET in secondary education in SVG?
7. How, in your opinion, might maritime education and training at the secondary school level help St. Vincent and the Grenadines' maritime business grow?
8. What contribution can secondary school level MET make to sustainability in SVG?
9. What is the relevance of introducing maritime education and training at the secondary level in SVG?
10. What are the current trends and challenges in the maritime industry that may require secondary maritime education and training in SVG?
11. What are the most common problems and trends in the maritime industry that could lead to the need for SVG maritime secondary level education?
12. Which ministry does maritime education and training fall under in the government service in SVG?
13. What developments and problems call for MET at the secondary level in SVG? (RQ 4)
14. What national development and challenges call for MET at the secondary level in SVG?

## Appendix 3

### Questionnaire

1. What is your gender?

*Mark only one.*

- ☐ Male  
☐ Female  
☐ Other  
☐ Prefer not to say

2. What is your age group?

12 - 19 years	20 - 29 years	30 - 39 years	40 - 49 years	50 + years

3. What level of education do you have?

*Mark only one*

- ☐ primary  
☐ secondary  
☐ Tertiary  
☐ Bachelor  
☐ Masters  
☐ Doctorate  
☐ Other:

4. Which group do you belong to?

- ☐ student  
☐ employee  
☐ other

5. What position do you hold in your organization?

*Please mark the category that you fit.*

CEO – Associate Director	Senior -manager- Associate Manager	Supervisor -Entry Level
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Other: \_\_\_\_\_

6. What is the name of your organization? (optional)

\_\_\_\_\_

7. Are you associated with any maritime institution or organization?

*Mark only one*

☐ Yes

☐ No

8. Are you aware of the maritime industry and the jobs opportunity available in the industry?

☐ yes

☐ No

☐ To some extent

9. Do you have an interest in pursuing a maritime career?

☐ Yes

☐ No

- Please state the reason for your answer

\_\_\_\_\_

10. Are maritime education and training available in secondary schools in St. Vincent and the Grenadines?

*Make only one.*

☐ Yes if yes questions 12 and 13

☐ No if no question 14

☐ To some extent

11. How many secondary schools are offering maritime education and training in St. Vincent and the Grenadines?

\_\_\_\_\_

12. What area of study is being offered in maritime education and training in St. Vincent and the Grenadines?



13. Have you received maritime education and training before?

- ☐ Yes if yes question 15  
☐ No if no question 16

14. At what level?

- ☐ Primary level  
☐ Secondary level  
☐ Associate level  
☐ Bachelor level  
☐ Master level

Other: \_\_\_\_\_

15. Would it be beneficial for you to have a foundational understanding of maritime-related subjects for your secondary education?

- ☐ Yes  
☐ No  
☐ Maybe  
☐ Not sure

- If yes, can you state why?

\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

**Kindly indicate your level of agreement with the following statement below**

16. The delivered subject at the secondary level influenced my career decision.

Mark only one box

Strongly disagree	Disagree	Not Sure	Agree	Strongly Agree
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

17. The secondary implementation of MET will encourage students to seek maritime jobs.?

Strongly disagree	<del>Disagree</del>	Not Sure	Agree	Strongly Agree
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

18. Maritime education and training at the secondary level would have a positive impact on the development of the maritime industry in St. Vincent and the Grenadines.

Strongly disagree	Disagree	Not Sure	Agree	Strongly Agree
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

19. Maritime education and training at the secondary level offer value to the maritime industry in your country.

Strongly disagree	Disagree	Not Sure	Agree	Strongly Agree
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

20. Your country's government should implement MET at the secondary level.

Strongly disagree	Disagree	Not Sure	Agree	Strongly Agree
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

21. National policies can assist St. Vincent and the Grenadines's maritime industry and the country's development.

Strongly disagree	Disagree	Not Sure	Agree	Strongly Agree
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

22. The government plays a significant role in maritime education and training at the secondary level in St. Vincent and the Grenadines.

Strongly disagree	Disagree	Not Sure	Agree	Strongly Agree
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

23. Are you pleased with your government's initiative to raise maritime awareness in St. Vincent and the Grenadines?

Strongly disagree	Disagree	Not Sure	Agree	Strongly Agree
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

24. How would you rank your country's degree of marine awareness?  
*1 is the lowest 10 is the highest*

1      2      3      4      5      6      7      8      9      10

Lowest   ☐   ☐   ☐   ☐   ☐   ☐   ☐   ☐   ☐   ☐   Highest

25. What national development and issues, in your perspective, necessitated secondary school MET in St. Vincent and the Grenadines?

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

26. What are some of the potential solutions and/or strategies for overcoming the barriers to implementing secondary maritime education and training in St. Vincent and the Grenadines?

\_\_\_\_\_

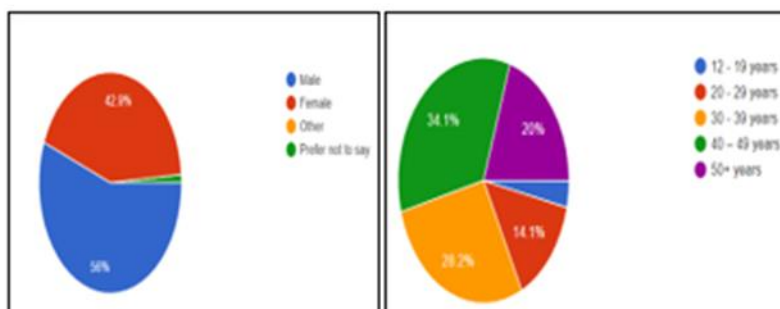
\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

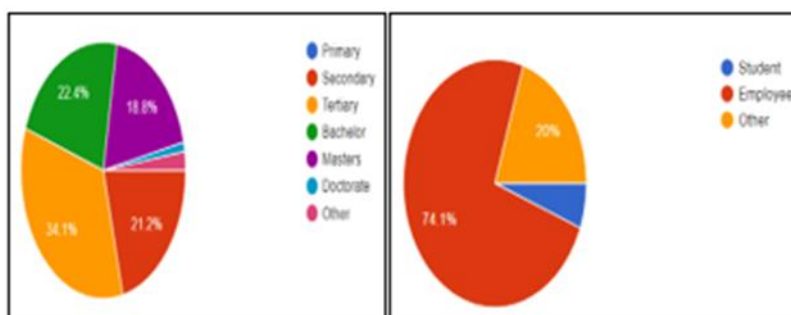
#### Appendix 4 - participant in terms of gender, age group, level of education and occupation

##### *Category of respondents.*



##### *Gender of participants.*

##### *Age of participants*



##### *level of education*

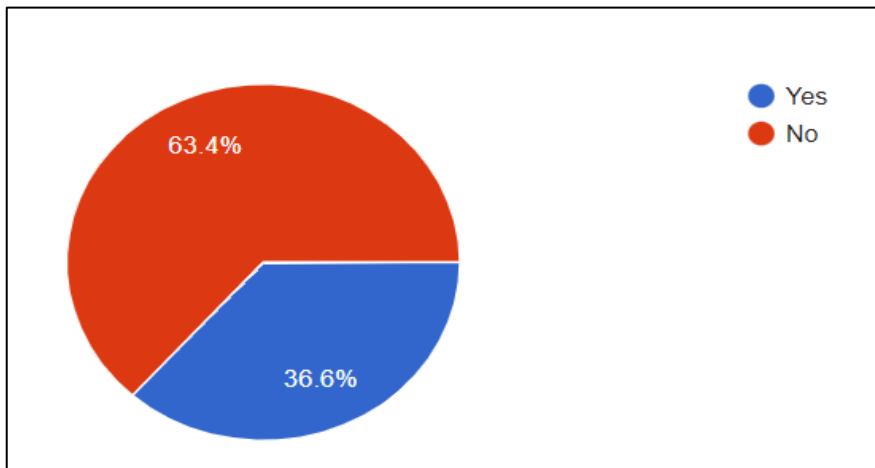
##### *Category of respondents.*

## Appendix 5

### Reasons for having an interest in the industry

- It is a fulfilling career.
- Marine time careers have always sparked an interest in me just never had the chance or training to pursue it.
- It would be great to extend my knowledge as our environment is made up of 70% water. In particular, knowing how to protect and preserve our aquatic environment for current and future generations to understand the benefits of living in harmony with nature is especially important.
- I recognise that there is a lot of room for growth and employment at different levels and in different fields.
- To have a better understanding of the maritime industry and how it can help with the development of the country's level of maritime education.
- There are many opportunities available.
- Maritime education should be a part of our school curriculum.
- To advance my career.
- There is a lot of money to be made.
- Because I want to pursue a different career (accounting),
- Lack of interest
- I have never been interested in that field as a career.
- Maritime is not my area of expertise.
- I have a career already.
- I would want to know about it.

Appendix 6 Depicts the percentage of the respondents who have or have not received MET before.



Appendix 7 bulleting answers to whether the respondents think having a foundational understanding of MET at the secondary school level will be beneficial.

- It would be an option to consider for my future career.
- Understanding the maritime environment and industry is one of the least discussed topics in society. To keep the maritime environment in balance as a whole, its benefits, such as the aquatic environment, food supply, food transportation, and human impact, must grow.
- to make students aware of the opportunities in the maritime industry and focus their students on the maritime field.
- More options for employment
- There are agricultural programmes offered in some secondary schools. Similar attention ought to be given to marine education. Here in SVG, our economy is very much dependent on agriculture and our marine environment.
- SVG is a marine/maritime base country. The country depends greatly on shipping for the import of food and supplies; for transportation, mainly between the mainland and the Grenadines; for the tourism industry and for recreation; and for the fishing industry.
- It will give the basic foundation for the maritime field of work.
- Create awareness early on
- We live in an island chain, and the marine ecosystem is vital to our nation on many levels (fishing, beach perseverance, tourism, boat operations, sailing, etc). An understanding of marine-related concepts makes our interaction with and respect for the marine environment better all around.
- To have basic knowledge of
- Our country is entirely surrounded by water, a vast resource that is yet untapped fully. I think it offers more opportunities for future generations if proper knowledge is provided to students early on.