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## Development of faculty development program in the Philippine coast guard training institutes

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**WORLD MARITIME UNIVERSITY**

Malmö, Sweden

**DEVELOPMENT OF FACULTY  
DEVELOPMENT PROGRAM IN THE  
PHILIPPINE COAST GUARD TRAINING  
INSTITUTE**

**MARISSA FAYCHO-BANGAYAN**

**Philippines**

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):

(Date): **20 September 2022**

Supervised by: **Professor Inga Bartusevičienė**

Supervisor's affiliation: **World Maritime University**

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*Matago-tago kayo am-in.*

# Abstract

Title of Dissertation: **The Development of Faculty Development Program in the Philippine Coast Guard Training Institutes**

Degree: **Master of Science**

The most crucial factor in enhancing professional education and competencies of the faculty members were the faculty's vitality. It is thought that enhancing faculty vitality in critical areas including their various roles such as teaching, research, service and administrative can significantly enhance educational settings and increase students' academic progress. A program called the faculty development program, or FDP, has been recognized as a distinct educational methodology in its own right for the purpose of developing faculty members' knowledge, professional skills and competencies.

This study aims to develop the Faculty Development Program(FDP) through evaluating the different faculty development models and identifying the needs of the faculty members of Philippine Coast Guard- Training Institutes (PCG-TIs) under the function areas of faculty (instruction, research, extension services and production), communicative, management and information, and communication technology skills. The research made use of mixed method approach, a quantitative and qualitative data were obtained from faculty members of the training institutes through the questionnaire, interviews and evaluation of related published articles/journals. The development of Faculty Development Program was based on the main findings of the study such as; 1) the instructors of PCG-TIs put an emphasis on their main job, which is instruction, as well as skills-related tasks like preparing teaching materials and using ICT; and 2) faculty members are given continual professional development, trainings and schooling but there is no structure being followed. Henceforth, this necessitates the development of a faculty development program that will keep track of and direct PCG-TIs faculty members toward their professional growth as needed, without lagging behind other faculty and without interfering with the performance of their primary role as instructors.

**KEYWORDS:** Competency, Faculty Profile, Faculty Development Program, Training Needs

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## **List of Abbreviations**

CGEDTC	Coast Guard Education Training and Doctrine Command
CDIO	Conceiving, Design, Implementin and Operating
DOTr	Department of Transportation
EPM	Ecole Polytechnique Montreal
FD	Faculty development
FDP	Faculty Development Program
HE	Higher Education
IMO	International Maritime Organization
META	Mentoring, Engagement, Technology and Assessment
MIT	Massachusetts Institute of Technology
PCG	Philippine Coast Guard
QUB	Queen's University of Belfast
RIT	Royal Institute of Technology
REC	Research and Ethics Committee
SECOMCAP	Service Command Career Path
SP	Singapore Polytechnic
TI	Training Institute
WMU	World Maritime University

## Chapter 1 Introduction

### 1.1. Background and Context

Faculty members' tasks and responsibilities are linked to their respective academic institutions' fundamental functions, goals, and visions. The faculty members' role in teaching, research, administrative and service reflects their relevance in achieving the institutions' primary educational objectives. The transmission and dissemination of fundamental or applied knowledge, as well as the guidance of students through the learning process and the application of knowledge, are all ways of faculty members in instructing students. Ultimately, each faculty member's responsibility is to ensure the high quality and depth of training. Faculty members are expected to keep up with advances in the field to keep their expertise and knowledge base up to date and contribute to developing new trends, innovations, and developments. This is where faculty development comes in. As described by Sheet and Schwenk (1990), faculty development is

*"any systematic activity meant to increase an individual's knowledge and skills in areas judged vital to the effectiveness of a faculty member in a department or residency program" (e.g., teaching skills, administrative skills, research skills, clinical skills). "*

In addition, faculty development refers to a wide range of activities that are thought to help instructors or faculty to improve their professional competencies, which are crucial for fulfilling their teaching, research, service, and administrative duties in their respective fields of study. On the other hand, O' Sullivan & Irby (2011) explained that faculty development is one method for enhancing teachers' instructional and research skills and the institutional policies that support academic performance. It assists faculty members in developing their skills and expertise, enabling them to capitalize

on globalization while motivating their students and fellows to get first-hand information about technologies, innovation, and exploration. Numerous studies have discovered that faculty development programs significantly impact intellectual abilities, skills, and knowledge, instructional and organizational development, and a variety of beneficial effects on students' academic achievement and long-term viability.

The Philippine Coast Guard (PCG) is the country's third uniformed armed service branch. It is the nation's only humanitarian armed service under the auspices of the Department of Transportation (DOTr). The mandate lies in implementing the core functions such as maritime safety, marine environmental protection, maritime security, maritime law enforcement, and maritime search and rescue. Furthermore, the Coast Guard Education, Training, and Doctrine Command (CGETDC) is the unit in charge of educating, training, and continuously developing Coast Guard members so that they are equipped with the basic and advanced coast guard knowledge and skills needed to effectively perform the PCG core functions and pursue a progressive coast guard career. However, with the advent of the Service Command Career Path (SECOMCAP), the different training institutes of major/functional commands will conduct the specialization and functional courses, which were under the CGETDC before.

In addition, the faculty members are personnel of various training institutes and subject matter experts. These faculty members were only teaching for a short period, and eventually, they had to be assigned on board ship for career growth in conjunction with their designed career pattern. Consequently, the faculty members in the respective training institutes come and go, which creates a reduction in instructors. All these faculty members have taken their IMO Model Courses 6.09 (Training Course for Instructors), while others have IMO Model Course 3.12 (Assessment, Examination & Certification of Seafarers) requisites to becoming instructors or facilitators.

While the PCG encourages and aims for its faculty to become better practitioners, a faculty development program is yet to be developed. It is in this context that this study was conceptualized. The researcher aims to develop and propose a faculty development program for all the PCG Training institutes to enhance the quality of

training being delivered to the trainees and thereby producing world-class coast guardians, who are fully equipped and competent coast guardians of the sea, dedicated to saving lives, ensuring the safety of maritime transport and cleaner seas, and securing maritime jurisdiction.

## **1.2. Problem Statement**

Considering the Philippine Coast Guard's various mandates and the challenges brought by the dynamic changes in the maritime environment, there is a need to enhance and equip its personnel with vital knowledge, skills, and competencies. However, these cannot be achieved successfully without the faculty members performing their roles in the educational context. It is vital to train and develop them, and professional instructors or educators must handle them.

Moreover, establishing the Philippine Coast Guard Academy is one of the reasons why this research is imperative. At the inception of the said academy, there should be a faculty development program in place as part of the education and training system and career development growth, which contributes to the quality of personnel serving the maritime environment.

The faculty development program will enable instructors or educators to become more professional in adapting to changing environments such as technological advancements and help the Philippine coast guard achieve its vision of becoming a world-class coast guard by 2028. By evaluating the various faculty development models and the training needs of the faculty PCG-TIs to include its roles and competencies, it ensures that all necessary knowledge, comprehension, skills, proficiencies, and competencies are available to sustain the production of competent and qualified Coast Guard officers capable of carrying out the organization's numerous mandates.

### **1.3. Research Aim and Objectives**

The research aims to develop a Faculty Development Program (FDP) that suits the needs of the PCG Training Institute (TI).

To achieve this aim, this research intends to address the following objectives:

1. To evaluate the different faculty development models and determine the most appropriate for the needs of PCG-TIs faculty;
2. To analyze the training needs of the PCG-TI faculty; and
3. To develop a faculty development program for PCG TIs.

### **1.4. Research Questions**

The researcher will address the following questions in light of the objectives:

1. What faculty development model best meets the needs of the PCG-TIs?
2. How may the faculty profile of the PCG-TIs be described?
3. How may the training needs of the PCG-Tis faculty be described?
4. Are there significant differences in the training needs of the PCG-Tis faculty when grouped according to their profile?
5. What faculty development program may be developed for the faculty of PCG-TIs?

### **1.5. Research Methodology and Methods**

This study employed a mixed approach of research, a combination of qualitative and quantitative methodologies in the same research (Molina-Azorin,2016). Likewise, this study gathered data from primary and secondary sources to answer the research questions. The primary sources were online surveys and interviews with faculty members of different training institutes of the Philippine Coast Guard. At the same time, the secondary data was acquired from various sources from peer-reviewed journals/articles, scientific research, and pertinent contributions and publications related to the research.

A mixed method was used to gain a comprehensive analysis and conclusion to the research questions, which is beneficial to the researcher in exploring the best model

for developing the faculty development program for the PCG training institutes. A detailed presentation of the methodological approach and specific method is found in Chapter 3 of this research.

#### **1.6. Significance of the Research**

The research on developing the FDP for the PCG-TIs will serve as an instrument in faculty professional development in conjunction with their teaching and learning, research, and educational leadership skills and to the training institutes as a whole. Further, it will also strengthen the roles of faculty such as teaching, service, research and administrative role to include their competencies and the institutional policies necessary to achieve academic excellence in all the personnel of the Philippine Coast Guard.

#### **1.7. Ethical Issues and Timeline**

This study was conducted strictly according to ethical research principles and the World Maritime University (WMU) Research and Ethics Committee (REC) standards throughout its course. The falsification of information/data obtained was avoided, and the acknowledgment of affiliation was handled professionally. Before conducting interviews and survey questionnaire, the researcher asked for consent and respected the respondents' confidentiality and right to privacy throughout the data collection and analysis processes.

#### **1.8. Dissertation Structure**

The dissertation encompasses six chapters, including the introduction therein. Chapter two (Literature Review) discussed the faculty competencies, faculty development, the various models, and the factors to consider in developing a faculty development program. Chapter three presented the research methodology and methods used to gather data and the data analysis. Whereas Chapter four, Research Findings, presents the findings and results in figures, tables, and charts. Chapter five (Discussions) explains and elaborates on the statistics presented in the previous

chapter. Chapter six concludes the research through conclusions and recommendations based on the previous discussions and data gathered.



## **Chapter 2 Literature Review**

### **2.1. Introduction**

This chapter summarizes and integrates existing literature that discusses and evaluates the different faculty development models in line with the study's primary research goal of ascertaining which of the extant faculty development models is most appropriate to be applied in the context of the PCG-TIs, and how, based on the selected model, an applicable FDP may be developed for the PCG-TIs. This chapter begins with the different roles of the faculty member, followed by a discussion on the concept of faculty competence and a detailed analysis of the faculty competence framework. In addition, this chapter also covers a discussion on faculty development (FD) as a concept, including its history and benefits in sustaining quality instructional practices among educators and faculty members. Moreover, this chapter presents a detailed discourse about the different faculty development models and how these may be applied within the context of the PCG-TIs.

### **2.2. Role of the Faculty Member**

A role within an organization refers to a position that is defined or associated with a specific set of responsibilities and tasks. While socially constructed in most cases, a role is considered appropriate and expected to be fulfilled by a person in a team or an organization (Ebbers & Wijnberg, 2017). In teaching, faculty members are expected to perform or execute their roles effectively to achieve educational goals of improved student retention and higher chances of academic success (Raja & Mynavathi, 2018). Kamel (2016) also underscored that part of the challenge of being a faculty member

is managing multiple roles and handling various responsibilities inside and outside the classroom setting.

Before delving into a discussion on the different roles that faculty members are expected to perform, it is essential to define 'faculty member' as one of the key concepts in this study. With education as its frame of reference, the term 'faculty member' has been used to refer to a group of people possessing the relevant experience, skills, and knowledge in teaching. As Makovec (2018) argued, faculty members are expected to have instructional skills and the ability to impart knowledge and valuable learnings to others, including students and colleagues. However, they are also likely to further enhance and supplement their teaching abilities for their personal growth and sustain their effectiveness in fulfilling their expected roles and duties in their profession (Makovec, 2018).

Faculty members are expected to play vital roles in ensuring the higher institutions' educational success (Cordeiro, 2010). Specifically, the authors Ashby et al., (2018) underscored the critical roles of teachers or faculty members in designing and assessing the effectiveness of educational curriculums and their functions in facilitating learning and driving learning student motivation. Even more interestingly, Bashir and McTaggart (2022) emphasized the faculty members' roles in modeling and inculcating good values and positive behavior in their students and facilitating effective academic learning. Ashby et al., (2018) further added that modern-day faculty members experience blurring lines between their instructor and mentor roles, pointing out the significance of the faculty members being able to perform their coaching and mentoring functions simultaneously while facilitating learning. For this research, the critical roles of faculty members are summed up and illustrated in the conceptual diagram as shown in Figure 1:

**Figure 1.**

*The Roles of Faculty Members*



**Note:** Adapted from the Southwest Tennessee Community College (STCC,2022): Author created the figure, 2022.

### 2.2.1. Teaching Role

Out of the many different roles that faculty members are tasked to accomplish, the teaching role is the most important, especially in fulfilling an educational institution's primary objective. According to Rajagopalan (2019), teaching is defined as a process of interaction that involves discussions and in-class talks which take place between students and teachers. Teaching may also be described as a 'scientific process' whose primary components include communication, feedback, and content. Another critical definition of teaching describes it as a process of imparting knowledge to educate, teach, and equip students with new & valuable knowledge (Wahyuddin, 2017).

For faculty members to perform their teaching roles, Selvi (2010) asserted that they need to acquire curriculum competencies that refer to the teachers' practical and theoretical competencies related directly to their ability to perform their teaching role effectively. Examples of these include the teachers' communication, classroom

management, organizational & time management, interpersonal, etc. All competencies related to student learning and performing teaching functions fall under the curriculum competencies (Selvi, 2010).

Murati (2015) says an excellent faculty member has the professional knowledge, instructional techniques, and professional commitment. Quality teaching approaches affect students' motivation, learning results, and academic achievement. Colleges and universities worldwide are improving faculty members' ability to give quality instruction that supports student learning (Esterhazy et al., 2021). One is by implementing teaching improvement programs that encourage faculty members to improve their teaching practices through peer coaching (teacher-to-teacher program), interactive learning exercises, and the formation of different learning communities to encourage teachers to seek learning from others continuously (or through one another) (Steinert, 2019). Based on this information, faculty enhancement and development programs at universities and colleges play a crucial role in effective teaching.

### **2.2.2. Research Role**

Every faculty member is expected to fulfil their teaching role; however, on top of performing this primary function, many faculty members are also assigned to conduct research-related roles. Stremmel (2002) described the dual functions of teachers as both educational practitioners and researchers by defining the teachers' research role as a form or type of action research whose purpose is to obtain practical solutions to relevant problems and issues about both the professional duties and the community obligations of teachers. In the context of the 'teacher-as-researcher' role, research pertains to the use of rigorous and scientific methods in acquiring new knowledge that may be applied to enhance the teachers' educational practices and functions (Anderson & Herr, 1999). For teachers to effectively perform their research role, they need to acquire research-based competencies, which include problem-solving, strategy development, the ability to form a hypothesis, conduct analysis and analyze results, and demonstrate academic writing skills (Selvi, 2010; Toquero, 2021).

Although still considered an emerging role, more and more teachers are being assigned to accomplish research functions in their respective institutions to conduct systematic observations and analyze specific issues and problems related to their professional functions, with the intent of executing necessary changes within the context of their classrooms (Chow et al., 2015). Research, as another area of responsibility and function for teachers, is also often performed to design and structure teacher education programs that primarily benefit them.

### **2.2.3. Service Role**

The service role of teachers pertains to the beneficial participation of faculty members that productively contribute to the improvement or development of the educational institutions they serve, the outside community, and the external academic community (Rosenkranz, 2012). A concept highly relevant to teachers' service role is service learning, which, as described by Knapp and Fisher (2010), refers to a learning and experiential strategy that combines both classroom instruction and meaningful service to the outside communities. However, it is also necessary to point out that countless other activities and functions associated with the teachers' service role vary depending on what their respective institutions classify as 'service' (Institutional Management in Higher Education, 2012). For instance, service is defined and measured in several colleges based on the faculty members' active engagement and direct involvement in crucial faculty meetings, performing student advisory roles, and conducting other activities that align with the institution's mission (Rosenkranz, 2012). In terms of the relevant competencies, Selvi (2010) believes that teachers performing the service role must be equipped with a combination of curriculum competencies and socio-cultural competencies that encompass practical knowledge on the most recent social and cultural issues such as human rights and democracy as well as the most important national, international and local values.

### **2.2.4. Administrative Role**

In the school context, the teachers' administrative role refers to their duties related to planning and organizing various school resources (Fronza, 2018). One common misconception about the teachers' administrative role is that it enables them to work more effectively and efficiently. However, in most cases, teachers who accept heavier

administrative-related workloads tend to spend lesser time preparing for their instructional practices, which lessens efficiency in their most crucial role (Kim, 2019). Agi (2018) also supported the assertion that performing administrative functions for teachers hinders effective teaching and learning as these tasks/ roles tend to take up most of their time. Moreover, for faculty members to effectively perform their administrative roles, Selvi (2010) added the importance of acquiring and honing a combination of technical and organizational competencies, as possessing these skills would enable them to accomplish their administrative tasks more efficiently.

#### **2.2.5. Summary**

Faculty members are expected to carry out many different roles that are never defined clearly and are often influenced by numerous external factors. Nevertheless, these roles can be divided into four types: teaching, research, service, and administrative. Out of the many different roles that faculty members are tasked to accomplish, the teaching role is their most crucial role. In recent years, faculty members' evolving roles and functions became more evident as they included other vital roles such as research, service, and administrative. Under each type of role are different competencies that faculty members must acquire to perform their respective roles more effectively.

### **2.3. Faculty Competency**

#### **2.3.1. What is Faculty Competency?**

The term 'competency' is considered a multi-faceted concept that has many similar definitions. For instance, according to Katane et al. (2006), competency refers to skills, experience, and knowledge that are important in manifesting and accomplishing activities. On the other hand, another definition of the concept describes it as the values, skills, attitudes, motivations, beliefs, and knowledge that are necessary for individuals to have, for them to accomplish their functions (Selvi, 2010). In the context of faculty development, examining the faculty members' competencies is essential as they directly influence their teaching practices and the quality of teaching, they provide their students. As Boulter et al. (2003) stated, an individual's competencies are intrinsically linked or associated with the quality of their job performance. This implies

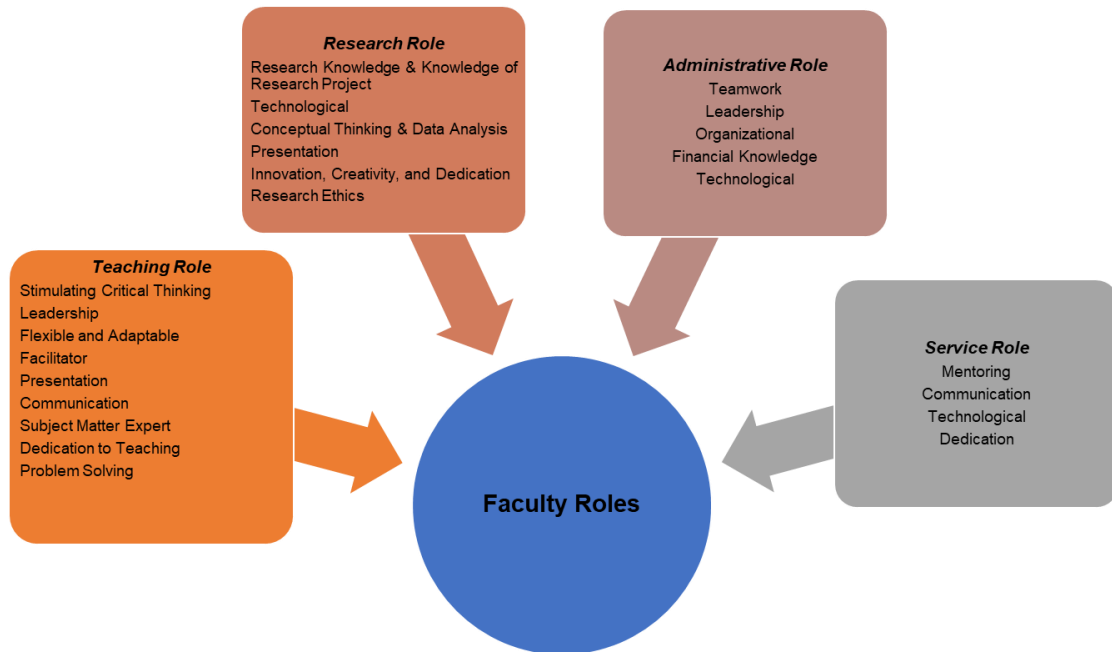
that in teaching, faculty members must not only possess but also strive to improve their competencies, particularly in various areas, including education, mentoring, organizational leadership, assessment, curriculum support, etc. A learning institution's educational vivacity highly depends on its faculty members' competencies, skills, and abilities (Jones et al., 2015). For this reason, appropriate faculty development programs must be devised by institutions for training and equipping teachers with specific competencies that ensure their effectiveness in performing their teaching practices (Selvi, 2010).

### **2.3.2. The Faculty Competency Framework**

The discussed above competencies can be summarized by providing the faculty competency framework. It illustrates the specific qualities and beliefs that educators or faculty members must possess to perform exceptionally well and, at the same time, achieve professional progress. Typically, a faculty competency framework comprises domains in various areas, including behaviour, skills, and knowledge. What makes a faculty competency framework important is that its components are keys for faculty members to not only flourish professionally but also be inculcated with the importance of lifelong learning, that enables them to spark creativity in the minds and hearts of their learners (Shankar et al., 2020). Another importance of the faculty competency framework lies in identifying the activities necessary for educators' professional development, along with assessing each of their competencies. Through this framework, the specific areas of practice that need enhancement on the part of the faculty members will be measured and evaluated (Milner et al., 2011). Figure 2 shows one sample of a faculty competency framework constructed by the researcher of this study that has been adapted from the research by Daouk-Öyry et al. (2016):

**Figure 2.**

*The Faculty Competency Framework*



The competency framework above shows that the competencies of faculty members may be classified based on the four (4) fundamental roles that teachers perform in the educational context. These are as follows:

According to Daouk-Öyry et al. (2016), the teaching role refers to the function-specific competencies of faculty members related to their instructional practices. Among the top competencies most relevant to the teaching role of teachers, as identified by Daouk-Öyry et al. (2016) are as follows: (1) **subject matter knowledge and dedication to teaching** – refers to the faculty member's level of knowledge and dedication to what they are teaching, (2) **stimulating critical thinking** – refers to the educator's ability to analyze and evaluate an issue related to their teaching role, (3) **facilitator** – refers to the faculty member's ability to bring about positive outcomes concerning their teaching role, (4) **flexible and adaptability** – refers to the educator's ability to adapt and adjust to challenging/ problematic situations, (5) **leadership** – refers to the faculty member's ability to lead people (learners and colleagues) toward



one common goal, (6) **presentation** – refers to the faculty member's ability to communicate ideas through a presentation clearly, (7) **problem solving** – refers to the faculty member's ability to solve complex problems, and (8) **communication** – refers to the faculty member's ability to communicate and express their ideas clearly.

With regard to performing the faculty members' research role, this also requires different types of competencies, according to Daouk-Öyry et al. (2016) which are as follows: (1) **research knowledge and knowledge of research project** – refers to the faculty member's level of knowledge about the research phenomenon they are undertaking concerning their role, (2) **conceptual thinking and data analysis** – refers to the educator's ability to understand abstract ideas/concepts and analyze data, (3) **innovation, creativity, and dedication** – refers to the educator's ability to come up with new creative ideas and display a sense of dedication to their research role, (4) **research ethics** – refers to the ethical stance of the faculty member in the process of conducting research, (5) **technological** – refers to the faculty member's ability to utilize relevant technological tools for research, and (6) **presentation** – refers to the faculty member's ability to communicate their research ideas through a presentation clearly.

According to Rosenkranz (2012), the teachers' service role refers to the beneficial participation of faculty members that productively contribute to the improvement or development of the educational institutions that they serve, the outside community, and the external academic community. In performing this role, specific competencies are needed, which are as follows (Daouk-Öyry et al., 2016): (1) **mentoring** – which refers to the educator's ability to provide coaching, advice, and guidance, (2) **communication** – which refers to the faculty member's ability to communicate and express their ideas clearly, (3) **technological** – refers to the faculty member's ability to utilize relevant technological tools to fulfil their service role, and (4) **dedication** – refers to the faculty member's ability to stay committed or dedicated to fulfilling their service role.

Lastly, according to Daouk-Öyry et al. (2016) cited several competencies that are relevant for teachers to be able to perform their administrative roles, which include:

(1) **organizational** – which refers to the educator's ability to create order and structure in line with the accomplishment of specific administrative tasks, (2) **leadership** – refers to the faculty member's ability to lead people (learners and colleagues) toward one common goal, (3) **teamwork** – refers to the faculty member's ability to work within a team, (4) **financial knowledge** – refers to the faculty member's level of expertise in handling finance-related concerns, and (5) **technological** – refers to the faculty member's ability to utilize relevant specialized tools to fulfil their administrative role.

### **2.3.3. Summary**

For the purpose of this research, competency can be defined as the values, abilities, attitudes, motivations, beliefs, and knowledge individuals must possess to fulfil their responsibilities. In order to fulfil their teaching, research, administrative, and service responsibilities more effectively, faculty members are required to acquire a specified set of skills and abilities. The faculty competency framework exemplifies and summarizes all the specific skills and beliefs that educators or faculty members must possess to perform effectively and advance professionally.

## **2.4. Faculty Development**

### **2.4.1. Background of Faculty Development**

According to Gillespie & Robertson (2010), faculty development emerged in the United States higher education during economic and social turbulence in the late 1950s to 1960s. The first and oldest form of faculty development was during the 1800s. On the other hand, Zhu and Li (2019) stated that faculty development as a concept might be traced back to ancient times, specifically during the time of Plato and Socrates. Different studies showed that faculty development as a concept had been used synonymously with other terms, such as educational development and staff development outside the US context (Smith & Hudson, 2019). The main objective of the faculty development program, even in its earliest form, is to assist faculty members in their continued development as academics within their respective professions. In more recent years, the concept of faculty development has already started to emerge and become recognized globally. It is being utilized in various

educational disciplines to help improve faculty members' performance and enhance their teaching quality (Gillespie & Robertson, 2010).

#### **2.4.2. What is Faculty Development?**

Faculty development is a concept that refers to the wide range of activities intended to aid instructors or educators in improving their professional competencies, which are crucial to their performance in various roles that include teaching, conducting research, providing service, and performing administrative duties in the educational context (Kwan et al., 2009). Similarly, Kamel (2016) also defined the concept of faculty development as that which pertains to the various activities and programs that educational institutions utilize to improve the performance of their faculty members and augment their capacities in achieving the organization's goals.

According to Trower and Gallagher (2010), many educational institutions find it difficult to enhance their faculty members' teaching ability. Interestingly, research shows that faculty members who have access to faculty development programs were found to be not only happier in performing their roles as teachers but also more effective in their teaching practices (Trower & Gallagher, 2010; Bilal et al, 2019). As Saker et al. (2021) stated, faculty development programs enable teachers and academicians to perform their jobs more efficiently and effectively. The authors Perez et al. (2012) added that faculty development programs significantly contribute to the professional growth of teachers. In fact, due to their active involvement in such programs, many faculty members have reported an increase in their student's learning development, enthusiasm, and overall academic success in the classroom. Moreover, the study by Postareff et al. (2008) validated that faculty members who underwent a pedagogical training program demonstrated higher confidence levels in their teaching practices than their non-pedagogical counterparts.

Nevertheless, the faculty development trend tends to suffer from a lack of consistency due primarily to budget cuts and reduced support from the management of many educational institutions. Issues on funding and the lack of prioritization and support for faculty training and development served as among the most perennial challenges which serve as a massive hindrance to the continuous improvement in the quality of

teaching and better job performance of many educators and faculty members worldwide (Mitchell & Leachman, 2015).

Although a majority of works of literature point to the significance of faculty development in improving the faculty members' teaching and educational practices, Sorcinelli et al. (2005) asserted that the concept of faculty development does benefit them in many other ways, aside from improving their teaching roles, as these authors stated, faculty development enables faculty members to acquire more diverse knowledge, abilities, and skills that enable them to perform multiple roles and manage many other responsibilities and tasks on top of teaching (Sorcinelli et al., 2005). Faculty development enables faculty members to perform their management and leadership roles better (Kamel, 2016).

#### **2.4.3. Benefits of Faculty Development**

The primary benefit of faculty development is the incremental improvement in the quality of teaching of educators or faculty members that make the learning process equally beneficial and productive for teachers and students (Raja & Mynavathi, 2018). In addition, studies have shown that faculty development also proves to help promote academic innovation and excellence (Rowbotham, 2015; Kamel, 2016; Postareff et al., 2008). It serves as an essential tool that may be used to improve the educational vivacity of various learning institutions worldwide by identifying the competencies that must be further enhanced among the faculty members and assessing the existing faculty development policies in the institution (Sharma & Pandher, 2017).

One of the direct outcomes of faculty development is an augmented or boosted faculty capable of delivering effective teaching and driving efficient learning among students (Saker et al., 2021). This implies the significance of adopting faculty development programs as it is only through such programs that the faculty competencies may be evaluated and monitored, which can enhance the effectiveness of faculty members and their contribution to quality education (Alsagheer et al., 2021). Faculty development has also benefited instructors or educators across all stages of their

development as faculty members, from updating their knowledge concepts to enhancing their teaching abilities and skills (Zhu & Li, 2019).

Moreover, Steinert (2019) added that the effects of faculty development had been shown to increase the overall learning satisfaction of students, who are the ultimate beneficiaries of such programs. Faculty members who were able to undergo faculty development activities and programs also reported positive changes concerning their attitudes in teaching and improvements in their teaching behaviours, educational beliefs, and principles. They also demonstrated higher enthusiasm, interest, and confidence in their capabilities in fulfilling their roles as teachers and educators (Steinert, 2019).

#### **2.4.4. Summary**

Faculty development is a vital concept that pertains to the different activities intended to aid academicians or educators in improving their professional abilities, which are crucial for performing their various roles. Research has shown that some of the critical benefits of faculty development for teachers include making the learning process equally beneficial and productive for teachers and students and helping promote academic innovation and excellence. In addition, faculty members who underwent the process of faculty development develop more positive attitudes about their educational beliefs and teaching behaviours which ultimately translate to better performing and more enthusiastic and confident student learners. Moreover, faculty development enables faculty members to perform their management and leadership roles better.

### **2.5. Faculty Development Model**

#### **2.5.1. Types of Models**

Given the fact that the effectiveness of instructors or educators in fulfilling their various educational roles proves to be important in achieving positive learning outcomes for students, it is only necessary for the different educational institutions to support faculty development initiatives intended to promote teaching excellence and enhance the faculty members' teaching abilities (Kozanitis et al., 2009). Currently, many faculty

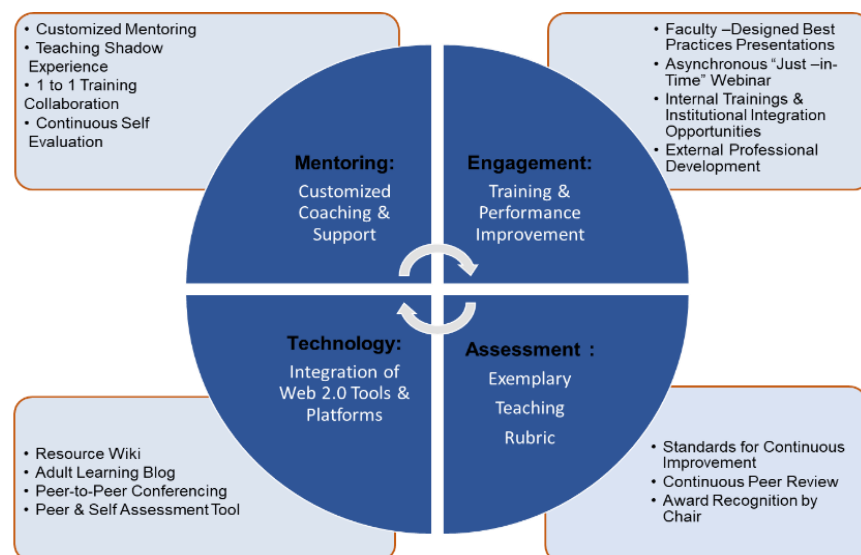
development models exist to support activities and programs intended for the enhancement of the professional teaching skills of educators. Some faculty development models are as follows:

### 2.5.1.1 META (Mentoring, Engagement, Technology and Assessment) Model

This faculty development model by Dittmar and McCracken (2012) is intended to develop and implement faculty development for the online faculty. Its purpose is to promote content creation and information sharing while fostering collaboration among faculty members who are geographically dispersed and teaching online. The components of the model are focused on individual (customized) mentoring and continuous professional development and engagement. It also integrates technologies to reinforce ongoing interaction and communication among faculty members, including various assessment measures (e.g., self-evaluation, peer evaluation, student assessment), which serve as foundations for exemplary teaching practices (Dittmar & McCracken, 2012). The diagram below shows the META model:

**Figure 3.**

*The Meta Model*



**Note:** Adapted from Developing High Performing Faculty Members (Dittmar & McCracken, 2012)

### 2.5.1.2 Singapore Polytechnic (SP) Model

A roadmap guides this professional development program for learning which identifies and defines all the teaching competencies necessary for faculty members to develop in pursuit of their teaching profession (Kozanitis et al., 2009). Under this model, new faculty members must attend a one-year program focusing on improving their core competencies and covering all the knowledge bases in teaching and the dispositions concerning effective teaching. The guests also share good practices through various platforms (Kozanitis et al., 2009). The table below shows the learning roadmap for all the academic staff/ faculty members in Singapore Polytechnic:

**Table 1.**

*The Learning Roadmap for the Singapore Polytechnic Model*

Learning Dimensions				
Professional Knowledge and Practice				
Subject Knowledge		Learning Design Management	Assessment	Student Management
Discipline Knowledge	CDIO Skills+	The range of decisions and knowledge bases (e.g. Principles of Learning, Pedagogic Content Knowledge) involved in planning, preparation and delivery of learning.	The processes, methods and procedures used to assess and promote desired learning outcomes.	The methods and activities that enhance the students' cognitive, affective and moral development.
The technical knowledge and skills that lecturers must acquire.	The relevant CDIO-skills that lecturers must acquire.			
<ul style="list-style-type: none"> <li>• Mastery of Subject Discipline</li> </ul>	<ul style="list-style-type: none"> <li>• Mastery of Skills</li> </ul>	<ul style="list-style-type: none"> <li>• Science of Learning</li> <li>• Lesson Design</li> <li>• Problem/Project Based Learning</li> <li>• Learning Resource Development and Use</li> <li>• Creative Teaching</li> <li>• Facilitation</li> <li>• E-Learning Pedagogy</li> <li>• Active Learning</li> </ul>	<ul style="list-style-type: none"> <li>• Principles of Assessment</li> <li>• Assessing Learner Performance</li> <li>• Online Assessment</li> <li>• Authentic Assessment</li> </ul>	<ul style="list-style-type: none"> <li>• Classroom Management</li> <li>• Pastoral Care</li> <li>• Counselling</li> </ul>

**Note:** Adapted from Exploring Different Faculty Development Models that Support CDIO Implementation ( Kozanitis et al., 2009)

#### **2.5.1.3 École Polytechnique Montreal (EPM) Model – Canada**

This faculty development model highlights compulsory training programs for all new educators/ faculty members. Under this model, faculty members are required to attend meetings with their pedagogical consultant, who assists in enhancing teaching skills and guides them in improving their courses and addressing problems in their instructional methods. Under the EPM model, the FDC (Faculty Development Centre) is required to assist faculty members in preparing their tenure and promotion materials. It adopts an 'integrated approach to evaluating instructors (Kozanitis et al., 2009).

#### **2.5.1.4 Queen's University of Belfast (QUB) Model**

The QUB model centre on the PGCHET (Postgraduate Certificate in Higher Education Teaching), which requires new members of the faculty to sign up for the said course. All new faculty staff must take up the PGCHET and pass the course. It is intended to improve the quality of teaching practices of faculty members by helping them adopt exemplary practices that will enable them to become more effective as educators (Kozanitis et al., 2009).

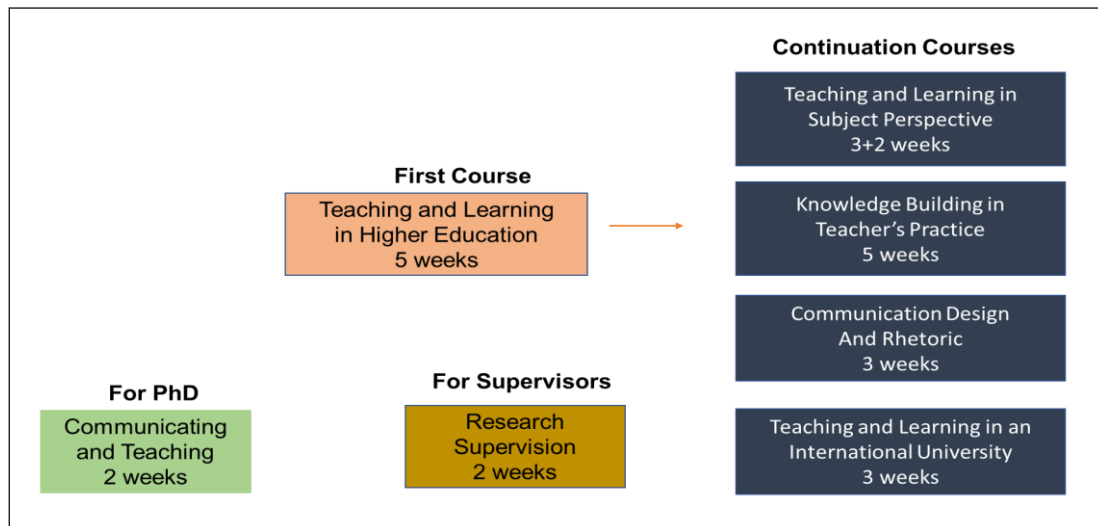
#### **2.5.1.5 Royal Institute of Technology Stockholm Model – Sweden**

This faculty development model includes all the 'packages of courses offered by the learning lab at the Royal Institute of Technology. The package consists of the requirements for all new faculty members that mandate them to undergo training in teaching in higher education and become eligible for the Senior Lecturer position (Kozanitis et al., 2009).



**Figure 4.**

*The Course Packages Included in the Learning Lab of the Royal's Institute of Technology*



**Note:** Adapted from Exploring Different Faculty Development Models that Support CDIO Implementation ( Kozanitis et al., 2009)

#### **2.5.1.6 Massachusetts Institute of Technology (MIT) Model – USA**

This faculty development model centres on the faculty development program at MIT (Massachusetts Institute of Technology). The institute is committed to providing the best resources to enhance research and teaching among faculty members and the opportunity for them to develop individually in their various educational roles as teachers, advisors, researchers, and administrators. Within the institute are three different offices in charge of supporting and developing faculty members through various educational activities: TLL (Teaching and Learning Laboratory), OEIT (Office of Educational Innovation and Technology), and OFS (Office of Faculty Support) (Kozanitis et al., 2009).

The different models from various educational institutions are helpful in the developing a faculty program however, each model does not fit all the requirements or needs of their faculty and the goals of an institution. Noteworthy to consider in choosing or altering such model was the various roles of faculty such as teaching, service, research and administrative to become more effective and efficient.

## **2.6. Pointers to Consider in Establishing a Faculty Development Program**

According to Steinert (2019), faculty development programs have emerged in recent years as an integral part of many schools and educational institutions. Programs that focus on faculty development include activities that educational organizations pursue to enhance their educators' and teachers' skills, behaviours, and knowledge. It was also emphasized that faculty development's primary goal is to teach members the right skills relevant to their faculty and institutional position and sustain their educational vivacity (Steinert, 2019). According to Zhu and Li (2019), the establishment of faculty development programs considered the faculty members' abilities in critical areas such as teaching, social service, and academic research. Despite the differences in the direction of faculty development programs, the primary purpose of these initiatives, according to Steinert (2019), remains that of promoting and driving positive change in the teaching practices of faculty members, as reflected in both the organizational and individual levels. There is still an essential need for faculty development activities to be implemented even today, given the indispensable role that faculty members play in educational institutions (Steinert, 2019).

According to Gillespie and Robertson (2010), fourteen (14) were identified to be considered when establishing an educational development program. The table below presents the fourteen questions that are vital in creating and designing an educational development program and how relevant and applicable they are in the PCG context, which is the focus of this study:

**Table 2**

*Pointers in Creation of FDP*

ITEM	DESCRIPTION	APPLICATION
1. The precondition in establishing a faculty development program	Before creating a faculty development program, it is necessary to establish or build a constituent base, wherein majority, if not all of an educational institution's faculty member, staff, students and administrators are in agreement or in favor of the program.	In applying this pointer to the PCG context, it is vital to first ensure that the institution's faculty members, staff, students and administrators are aware of the importance and the benefits of the faculty development and its long term effect for the organization as well for the support and approval.
2. The preferable form of faculty development programs	It is essential to select the form that a faculty development program must take. A "central unit" is considered the most commonly adopted for or structure in the majority of universities and colleges.	It is important to consider whether or not the adopted form for the FDP has a central unit or not in the PCG context.
3. What the mission of the program should be	Some important considerations under this pointer include whom the program will serve, what its goals should be and who will be done towards what specific end.	A FDP must have a clearly defined mission which details serve, what its goals should be and the programs included.
4. The process to be used in the formulating the strategic plan and mission.	It is important to adopt a specific process in line with the mission and strategic plan for the FDP.	In the PCG context, the one creating the program must know clearly the mission and strategic plan for the program.
5. The use of instructional technology in the program.	It is important to equip faculty members with the knowledge and skills in using technological tools in line with the program.	All the technological tools that will be utilized in the faculty development program must be identified and defined prior to the program's implementation.
6. The Budget	FDP must be supported financially.	PCG's budget for the FDP must be identified and must be properly allocated within a specific period of time.
7. Whether or not the program will be organizationally positioned.	It is vital to consider where the program will be situated within the organizational structure and what its reporting line for its coordinators or directors will be.	The organizational structure for PCG's FDP must be created including the compositions of its members.
8. The ideal director's characteristic	It is also important to determine the characteristics of the director of the program (e.g., knowledge and experience in educational development, facilitation skills, managerial skills, clinical skills and leadership).	The PCG must decide who is the most fitting and qualified to become the director for FDP's.
9. The choice between a rotating or a permanent director.	A choice has to be made between having a permanent or a rotating director although in most cases permanent directorship are preferable and ideal.	PCG must decide whether it will have a permanent or rotating director and also choose which member will handle the said position.
10. The service that the program should provide.	It is important to consider the four types of services that educational development programs usually offer which are: events, programs, consultations and facilitation.	The PCG must identify and select the types of services it will include in its educational development program for faculty members based on what is most importantly needed by its teachers/instructors.
11. How the services should be offered/delivered.	It is also necessary to consider the delivery of services which can either be centripetally (bringing in the clients) or centrifugally (going out to reach the clients).	A choice has to be made between centripetal and centrifugally as to how the PCG will offer its services.
12. The ethical guidelines	One vital aspect of the FDP is examining the Professional and Organizational Development Program (POD) Network in Higher Educational guidelines particularly in the aspect of confidentiality which is a crucial element.	The faculty development program's ethical guidelines must be clearly set and defined by the PCG.
13. The program's advisory board	While it takes considerable time and effort to build an advisory board for the faculty development program, it is also necessary to consider its many benefits, primarily if the created advisory board can effectively fulfill its functions.	PCG must create its own advisory board in line with the implementation of its faculty development program.
14. How the program can build itself as a brand	It is vital to use appropriate symbols and create a memorable logo or name for the faculty development program.	PCG must agree on its own name, logo and symbols for its own faculty development program.

## 2.7. Summary

Faculty development programs have emerged in recent years as an integral part of many schools and educational institutions. These pointers are crucial when building, revitalizing, or rearranging an educational development program and are applicable within the context of developing a FDP for the PCG-TIs. Along this line, there is a wide variety of faculty development models available to support a variety of activities and programs that aim to improve the different roles of faculty and the competencies as well. The abovementioned models were significant in the developing of FDP in relation of the training needs of the instructors or educators, role and competencies of faculty or instructors and the educational institution as well. Thus, any of these pre-existing faculty development models has the potential to be adopted and altered for use in a wide range of educational settings. Thus, following are the basic features of various FDP:

**Figure 5.**

*The META FD Model*

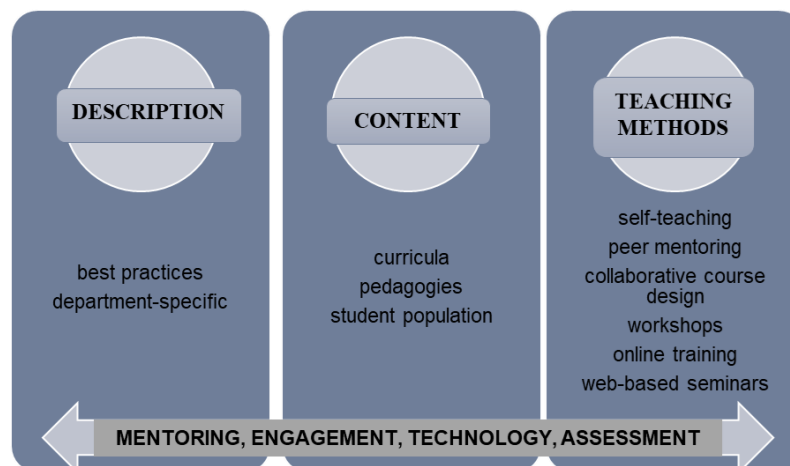


Figure 5 shows the description, content, and teaching methods used in applying the META faculty development model. This focuses on the best practices to be shared with the new and regular faculty members. This faculty development model is specific to a department and may not apply to other departments. The methods used to implement their faculty development program using the model are self-teaching, peer

mentoring, collaborative course design, workshops, online training, and web-based seminar. The other skills of the faculty under the program are also honed with the methods.

**Figure 6.**

*The Singapore Polytechnic Model*

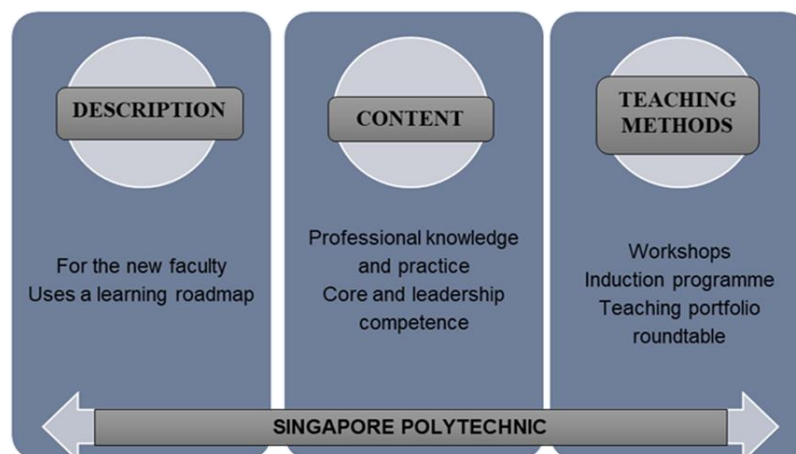


Figure 6 encapsulates the salient features of the Singapore Polytechnic Model. It shows that the model is designed for the members of the faculty who follow a learning roadmap. The program starts with rigorous year-round training and shares good practices with invited guests and innovative faculty (Kozanitis et al., 2009).

**Figure 7.**

*The EPM Model*

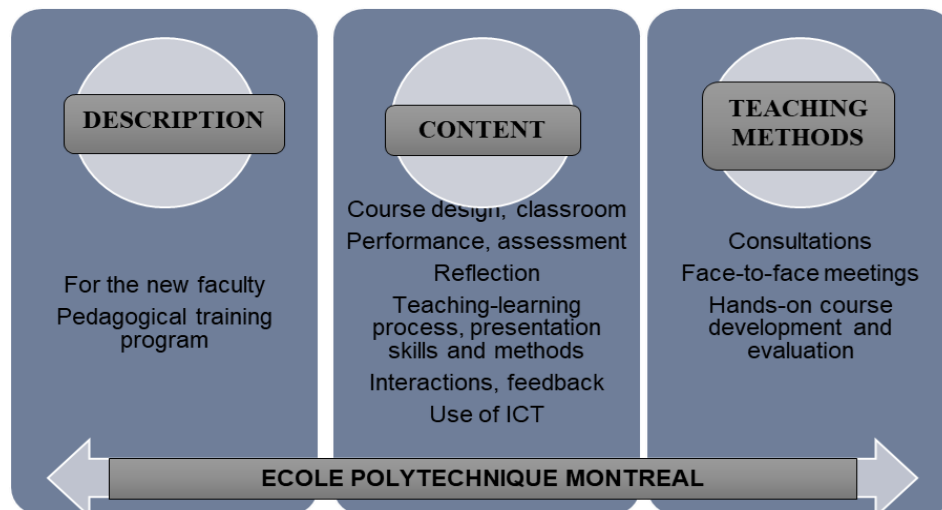


Figure 7 shows that the EPM model is also designed for new faculty members who receive individual consultations and face-to-face meetings to tackle the different teaching and learning areas.

**Figure 8.**

*The QUB: PGCHET Model*

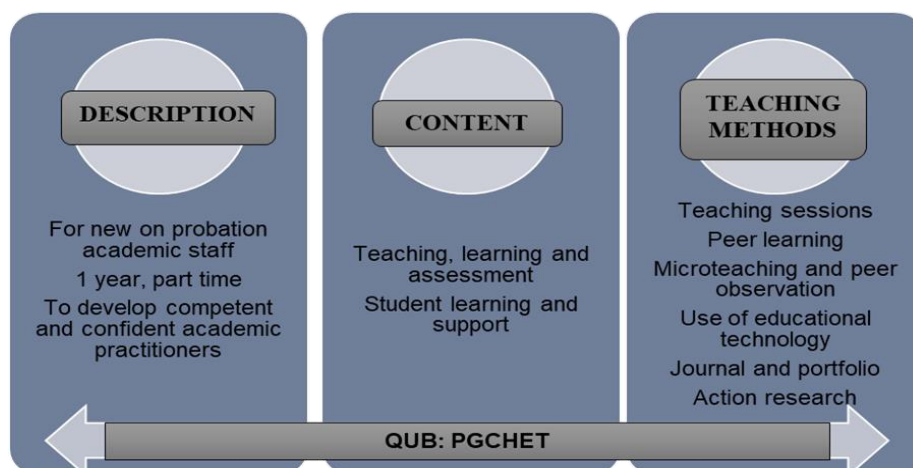
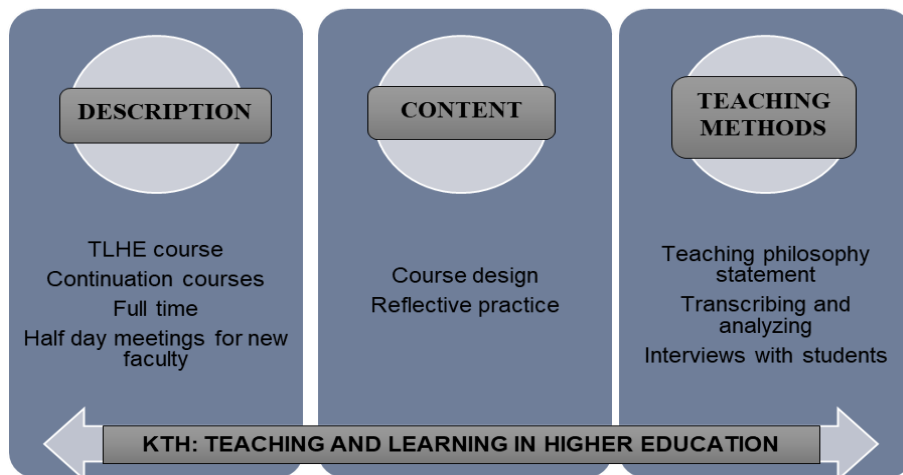


Figure 8 presents the features of the Queen's University Of Belfast -PGCHET. Similar to the EPM model, the QUB-PGCHET is also programmed for new faculty members.

However, the program is facilitated or offered to a large group of participants who receive training in the different areas of the teaching-learning process for one year.

**Figure 9.**

*KTH: Teaching and Learning in HE Model*

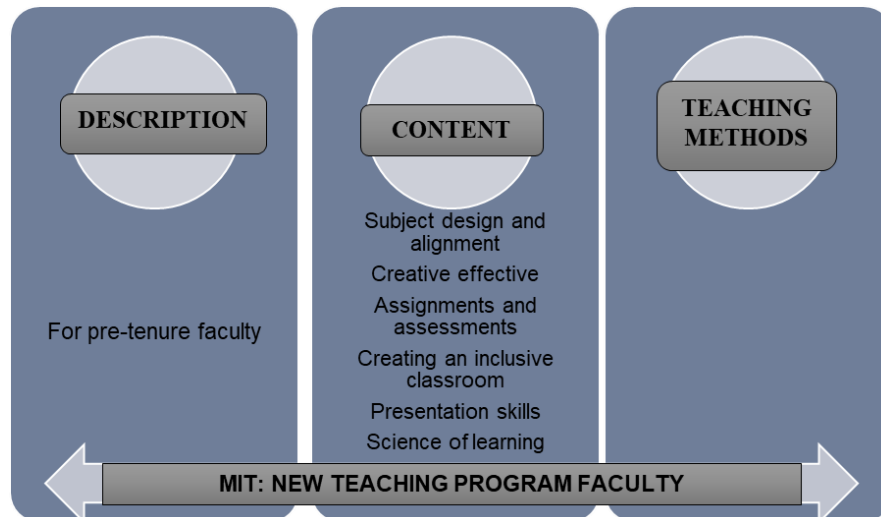


The KTH: Teaching and Learning in Higher Education faculty development model are designed for a group of faculty members to be promoted to senior lecturer in a Swedish university in Sweden (Figure 9). The program lasts for ten weeks, with the first five weeks focused on teaching and learning in higher education and the next five weeks spent on a selected continuation course by the participant

Finally, Figure 10 shows the model followed by the Massachusetts Institute of Technology (MIT). The program is run collaboratively by different offices that provide the different services needed by the participants.

**Figure 10.**

*MIT Model*



Notably, all the models address the primary function area of teaching, which is instruction, covering teaching and learning, competence development, and learning assessment. Most of these models also address a faculty member's three functions: instruction, research, and extension service. EPM and QUB are specific in creating their programs for the new entrant faculty members, while the META is explicitly designed for instructors teaching online. The analysis of the models presents the theoretical background for the development of the FDP in PCG-TIs and used for the empirical research.



## **Chapter 3 Research Methodology and Methods**

### **3.1. Introduction**

This chapter presents and discusses the research methodology and methods utilized to seek answers to the research questions wherein it employed the mixed method approach. According to Tashakkori and Creswell (2007), mixed method approach may define as using both qualitative and quantitative approaches or procedures within a single study, the researcher collects and analyses data, integrates findings, and draws implications. The researcher applied the mixed method to get a thorough analysis of the study issues and a conclusion to them, which will be helpful to the researcher in determining the most appropriate model for building the faculty development program for PCG-TIs. Further, the methods used in answering the research questions and addressed the aim of the study, the selection of the participants, the development of data gathering tool and the analyses of data are separately presented and discussed:

#### ***Objectives:***

1. To evaluate the different faculty development models and determine the most appropriate for the needs of PCG-TIs faculty;
2. To analyse the training needs of the PCG-TI faculty; and
3. To develop a faculty development program for PCG TIs.

#### ***Research Questions:***

1. What faculty development model best meets the needs of the PCG-TIs?
2. How may the faculty profile of the PCG-TIs be described?

3. How may the training needs of the PCG-TIs faculty be described?
4. Are there significant differences in the training needs of the PCG-TIs faculty when grouped according to their profile?
5. What faculty development program may be developed for the faculty of PCG-TIs?

### **3.2. Research Designs**

This type of research used the mixed method approach. According to Creswell (2007), a mixed method research is a methodology that combines quantitative and qualitative data to arrive at a better understanding of a problem. For the quantitative data, the researcher used the survey questionnaire. According to Check and Schutt (2012), survey research is a form of quantitative research that involves collecting information from a research sample using a numerically-rating questionnaire design, a set of open-ended questions, or a combination of both. Based on the literature analysis, the survey questionnaire was developed. It consisted of twenty-three questions presented in three parts. The logic of the developments of variables is presented in Table 4. The developed questionnaire was transformed into Google forms to be sent to respondents for their convenience. The first part dealt with the demographic questions where the respondents had the option to provide names or make it anonymous. The second part was the Likert scale, a five point scale from not needed to very much needed. Furthermore, a 5-point scale was employed to allow respondents to express or reveal their positive-to-negative intensity of agreement or feeling regarding the question or statement. Because a Likert Scale was used, the questionnaire was distributed to 40 respondents for validation and reliability testing. The Cronbach alpha value was 0.979, which was excellent. The last part was composed of open-ended questions for the researcher to acquire more insights and ideas from the respondents.

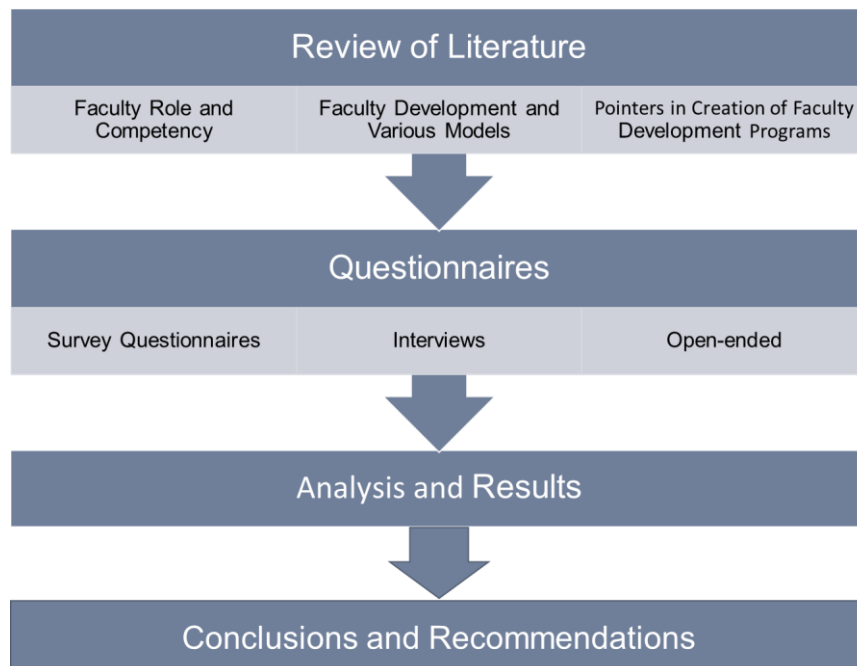
Likewise, a semi-structured interview was employed to collect data, a tool used to gather in-depth knowledge and insights concerning the participants' thoughts, attitudes, and behaviours (Harris & Brown, 2010). Through the semi-structured interviews, the researcher seeks more perceptions as possible from the target respondents regarding their personal views on faculty development, faculty

development programs, faculty competencies, and the different faculty development models. The answers in the interviews were coded and categorized

Moreover, the Figure 11 presents the framework for the empirical research for survey, interviews and open-ended which was derived from thorough review of literature which encompasses the various roles of faculty, the competencies and its framework, the faculty development, the existing models of FDP and the pointers in creation of faculty development program.

**Figure 11.**

*Empirical Research Instruments*



### 3.3. Development of Research Instrument

The purpose of the operational definition is to clarify the idea of a variable that has measurable parameters (Rafiola et al., 2020)

**Table 3.***Variable Operational Definitions*

<b>Variable</b>	<b>Definition</b>	<b>Questions</b>	<b>Scale of Measurement</b>
<b>Instruction</b>	Comprised of ideas and techniques that instructors utilize to improve and connect the teaching to students.	1.Module/instructional materials development 2.Critical and creative thinking skills development 3.Principles of adult learning 4.Utilization of multimedia materials for instruction 5. Relevant/appropriate methodology/pedagogy in teaching particular disciplines/program 6.Effective evaluation techniques and test construction/TOS 7.Course syllabi preparation 8.Curriculum enrichment	Likert
<b>Research</b>	It is the application of a rigorous and scientific process to learn new information that may be used to improve teachers' educational practices and roles.	1.Research proposal preparation 2.Research instrument formulation/development 3.Panel evaluator skills 4.Technical writing skills 5.Analyzing gathered data 6.Presentation of research/es 7.Publication of research/es	Likert
<b>Extension Services</b>	It refers to the beneficial participation of faculty members that productively contribute to the improvement or development of the educational institutions that they serve, the outside community and	1.Extension proposal preparation 2.Organizing people/communities 3.Conducting participatory rural appraisal 4.Transfer of learning/technology/skills 5.Establishing linkages 6.Empowering partner agencies/communities 7.Evaluation and monitoring	Likert

	the external academic community.		
<b>Production</b>	It is the process of generating an output, typically in the form of a valuable product or service that adds to an organization's overall level of effectiveness.	1. Income generating processes/procedures 2. Resource generation mechanism 3. Preparation of feasibility studies 4. Marketing of produced materials 5. Proper packaging of materials 6. Product development skills 7. Promotion of products	Likert
<b>Oral Communication</b>	In the presentation of ideas, the use of proper language that is characterized by clarity, precision, and coherence is essential.	1. Effective oral communication 2. Phonemic/phonetic skills development 3. Approaches to effective oral communication	Likert
<b>Writing Skills</b>	It has a strong structure, good grammar, and a style that stays the same. It is important for writing papers, reports, and presentations.	1. Business correspondence 2. Approaches to effective writing 3. Effective written communication	Likert

<b>Management Skills</b>	It refers to faculty's capacity to manage teaching, classroom, students, and communication.	1.Positive behavioral management dealing with apathy (lack of interest) and negativity (unconstructiveness) 2.Personnel effectiveness and leadership seminars 3.Leadership for the effective administration of students 4.Planning and managing equivalency and accreditation 5.The art of making meetings work	Likert
<b>Information and Communication Technology Skills</b>	Faculty members' capacity to use appropriate information and communication technologies to facilitate, improve, and maximize information transfer	1.Preparing teachers to teach with technology 2.Designing multimedia instructional materials 3.Computer use, maintenance, security and internetworking 4.Microsoft office applications (word, power point, excel, publisher) 5.Computerization of grades and enrolment systems	Likert

**Note: From** “The Effect of Learning Motivation, Self-Efficacy, and Blended Learning on Students’ Achievement in The Industrial Revolution 4.0” by Rafiola et al., (2020).

### 3.4. Selection of Participants

Purposive sampling was applied in selecting the respondents for the survey questionnaire and the interviews to be performed by the researcher. By definition, purposive sampling refers to the sampling technique that entails identifying and selecting specific individuals or groups of individuals who are experienced or knowledgeable about a given phenomenon (Patton, 2002). The researcher applied this sampling method, given the time efficiency and cost-effectiveness of purposive sampling as a sampling strategy.

In this study, the researcher selected knowledge subject experts’ instructors and well experienced in terms of teaching and service in their respective training institutes that

can provide insights, understanding, perceptions and experiences on this research. In addition, out of 300 instructors of PCG-TIs, 150 instructors or faculty member respondents was considered the target sample size for the survey questionnaires (see Appendix A) and ten for the interviews (see Appendix B), comprising of officers and non-officers.

### **3.5. Data Collection**

In this study, the researcher intended to obtain quality and in-depth responses from personnel of PCG-TIs, specifically faculty members. The researcher targeted at obtaining 150 respondents from the various training institutes such as the Marine Environmental Protection Command, Maritime Security and Law Enforcement Command, Coast Guard Weapons, Communications, Electronics and Information System Command, Coast Guard Education Training and Doctrine Command, Coast Guard Logistics System Command, Coast Guard Fleet, Coast Guard Special Operation Force and Coast Guard Aviation Force. In addition, the researcher secured the permission of Head of the different PCG-TIs to conduct a survey and interview to the selected respondents and subsequently requested the assistance from PCG-STIs colleagues to provide the contact information of the respondents. When done, the survey questionnaire in google form was emailed to the one hundred fifty respondents, and the responses were automatically returned and recorded online.

For the interview, an invitation letter was sent to the target interviewees. When approved, the researcher requested for a schedule of the interview and ten PCG-TIs personnel agreed to be participants. With the permission of the interviewees, the researcher used an audio recorder to support the notes during the interview session.

### **3.6. Data Analysis**

The quantitative data collected from an online survey questionnaire thru the google form was imported into a spreadsheet. While questions with a Likert scale were computed using the weighted mean distribution and standard deviation to establish the ranking among the items in the group, nominal data was generated using frequency and percentage distribution. The significant differences were answered

using inferential statistics, specifically Kruskal Wallis H Test. Open-ended survey responses yielded data that was organized into themes. The tables in Chapter 4 show the descriptive statistical data.

The data gathered from the interviews and open-ended questions were transcribed and subjected to scrutiny, evaluation, and interpretation. The researcher utilized content analysis as its primary research tool in analysing and interpreting the meanings, relationships, and insights behind certain concepts, themes, and words provided by the respondents. The researcher used Microsoft Excel to organize the information/ qualitative data derived from the participants. The texts were broken down into specific code categories based on their recurrence or repetition from the acquired data.

### **3.7. Research Ethics**

This research adhered to all the guidelines and policies stipulated by the Research Ethics Committee (REC) of the World Maritime University (WMU) about the involvement of human participants in a research study. In addition, the researcher also provided a consent form to all participants before undergoing the online survey questionnaire and interviews to uphold the research ethics, such as the privacy and anonymity of the participants. The data gathered participants were handled with the utmost confidentiality. and securely stored with password protection which will be safely and properly disposed of or deleted after the research.



## **Chapter 4 Research Findings**

This chapter presents the data that answer the objectives of the study. Following the survey and the interview methods mentioned in the previous chapter, below are the information gathered from the 150 respondents who participated in the study. Data are presented parallel with the research questions that address the research objectives.

### **4.1 Demographic Information**

The respondents were one hundred fifty (150) from various training institutes of the PCG, namely, Coast Guard Education Training and Doctrine Command (CGETDC), Marine Environmental Protection Command (MEPCOM), Coast Guard Weapons, Communications, Electronics and Information System Command, Coast Guard Fleet, Coast Guard Logistics Systems Commands, Coast Guard Special Operations Force and Coast Guard K9.

#### **4.1.1 How may the faculty profile of the PCG-TIs be described?**

Table 4 depicts the profile of the 150 faculty members of the various PCG-TIs. In terms of age, more than half of those polled are under the age of 50 and no younger than 25. The majority of responders are millennials, those born between 1981 and 1997. (Frey, 2018). In terms of educational attainment, the same data shows that the majority of training institute instructors hold a degree. Some did not complete college, while others are graduates of vocational programs.

The majority of responders did not go beyond 15 years in terms of time spent in teaching in the PCG. One notable finding is that the majority of the faculty members have only a few years of experience teaching courses, indicating that they are still relatively new to the field.

**Table 4.***Faculty Profile of the PCG-TIs*

<b>Age</b>	<b>Frequency</b>	<b>Percentage (%)</b>
25-34 years old	96	64.0
35-44 years old	47	31.3
45-54 years old	7	4.7
<b>Total</b>	<b>150</b>	<b>100.0</b>

<b>Educational Attainment</b>	<b>Frequency</b>	<b>Percentage (%)</b>
College Level	7	4.7
College Graduate	136	90.7
Vocational	7	4.7
<b>Total</b>	<b>150</b>	<b>100.0</b>

<b>Years of Service</b>	<b>Frequency</b>	<b>Percentage (%)</b>
1-7 years	60	40.0
8-15 years	70	46.7
16-25 years	20	13.3
<b>Total</b>	<b>150</b>	<b>100.0</b>

<b>Years of teaching</b>	<b>Frequency</b>	<b>Percentage (%)</b>
1-5 years	106	70.7
6-12 years	36	24.0
12-20 years	8	5.3
<b>Total</b>	<b>150</b>	<b>100.0</b>

<b>IMO Model Course</b>	<b>Frequency</b>	<b>Percentage (%)</b>
Model 6.09	122	81.3
Model 3.12	26	17.3
Model 6.10	2	1.3
<b>Total</b>	<b>150</b>	<b>100.0</b>

For the required IMO Model Courses, all respondents reported that they had taken the Training Course for Instructors or the IMO Model Course 6.09. Twenty-six (26) answered that they had taken Assessment, Examination, and Certification to Seafarers or the IMO Model Course 3.12. Lastly, only two (2) have taken Train the Simulator Trainer and Assessor Course (IMO Model Course 6.10).

#### 4.2 How may the training needs of the PCG-TIs faculty be described?

Table 5 shows the PCG-TI faculty's instructional training needs. As demonstrated by the verbal interpretation of the average numerical response of 4.08 (much needed; SD= 0.90), faculty members evaluated all of the areas under teaching to be highly significant. The table also shows that, of the eight (8) evaluation criteria, the need for training on module or instructional materials development came in first, followed by training on the use of multimedia materials for instruction, effective evaluation techniques, and test construction or the preparation of the table of specifications respectively. Even though it was deemed important, a training or seminar on the concepts of adult learning ranked last.

**Table 5.**

*Training Needs of PCG-TI Faculty in terms of Instruction*

Instruction	Weighted Mean	Standard Deviation	Ranking	Verbal Interpretation
1.Module/instructional materials development	4.15	.903	1.0	Much Needed
2.Critical and creative thinking skills development	4.09	.944	6.0	Much Needed
3.Principles of adult learning	3.93	.952	8.0	Much Needed
4.Utilization of multimedia materials for instruction	4.13	.885	2.0	Much Needed
5.Relevant/appropriate methodology/pedagogy in teaching particular disciplines/program	4.10	.865	4.5	Much Needed
6.Effective evaluation techniques and test construction/TOS	4.12	.843	3.0	Much Needed
7.Course syllabi preparation	4.06	.936	7.0	Much Needed
8.Curriculum enrichment	4.10	.910	4.5	Much Needed
<b>OVERALL</b>	<b>4.08</b>	<b>0.90</b>		<b>Much Needed</b>

**Legend:** 1:00-1.80 Not Needed; 1.81-2.60 A Little Bit Needed; 2.61-3.40 Needed; 3.41-4.20 Much Needed; 4.21-5.00 Very Much Needed

Presented in Table 6 is the summary of the training needs of PCG-TI faculty in terms of research. The table shows the respondents' agreement on the necessity of training in research as indicated by the overall mean of 4.00 (SD=0.888164) with a descriptive equivalent of 'much needed.' Among the seven (7) evaluation criteria, the PCG-TI faculty identified data analysis as the research item that requires the most training. At the same time, they ranked research publication training as the last.

**Table 6.***Training Needs of PCG-TI Faculty in terms of Research*

Research	Weighted Mean	Standard Deviation	Ranking	Verbal Interpretation
1.Research proposal preparation	3.99	.905	4.5	Much Needed
2.Research instrument formulation/development	3.99	.851	4.5	Much Needed
3.Panel evaluator skills	3.96	.919	6.0	Much Needed
4.Technical writing skills	4.08	.938	2.0	Much Needed
5.Analyzing gathered data	4.09	.843	1.0	Much Needed
6.Presentation of research/es	4.05	.857	3.0	Much Needed
7.Publication of research/es	3.92	.904	7.0	Much Needed
<b>OVERALL</b>	<b>4.01</b>	<b>0.89</b>		<b>Much Needed</b>

**Legend:** 1.00-1.80 Not Needed; 1.81-2.60 A Little Bit Needed; 2.61-3.40 Needed; 3.41-4.20 Much Needed; 4.21-5.00 Very Much Needed

Table 7 reveals that all seven areas in terms of the extension received a much-needed verbal interpretation. Regarding ranking, however, the area transfer of learning/technology/skills landed first (M=4.11; SD=0.886391). The least much needed area was conducting participatory rural appraisal with a weighted mean of 3.71 (SD= 0.863477). As regards areas that concern external stakeholders such as partner agencies, communities, and linkages, these obtained a succession order of 3, 4, and 5, respectively.

**Table 7.***Training Needs of PCG-TI Faculty in terms of Extension Services*

Extension Services	Weighted Mean	Standard Deviation	Ranking	Verbal Interpretation
1.Extension proposal preparation	3.75	.934	6.0	Much Needed
2.Organizing people/communities	3.81	.900	4.0	Much Needed
3.Conducting participatory rural appraisal	3.71	.863	7.0	Much Needed
4.Transfer of learning/technology/skills	4.11	.886	1.0	Much Needed
5.Establishing linkages	3.76	.984	5.0	Much Needed
6.Empowering partner agencies/communities	3.98	.916	3.0	Much Needed
7.Evaluation and monitoring	4.07	.924	2.0	Much Needed
<b>OVERALL</b>	<b>3.88</b>	<b>0.92</b>		<b>Much Needed</b>

**Legend:** 1.00-1.80 Not Needed; 1.81-2.60 A Little Bit Needed; 2.61-3.40 Needed; 3.41-4.20 Much Needed; 4.21-5.00 Very Much Needed

In terms of production, as presented in Table 8, the much-needed training need of the participants was the preparation of feasibility studies with a weighted mean of 3.89 (SD= 0.908843), followed by product development skills. Looking at the opposite ranking, proper packaging of materials and income generating processes/procedures came the last two, respectively.

**Table 8.**

*Training Needs of PCG-TI Faculty in terms of Production*

Production	Weighted Mean	Standard Deviation	Ranking	Verbal Interpretation
1. Income generating processes/procedures	3.67	.967	7.0	Much Needed
2. Resource generation mechanism	3.79	.952	3.0	Much Needed
3. Preparation of feasibility studies	3.89	.909	1.0	Much Needed
4. Marketing of produced materials	3.76	.991	4.0	Much Needed
5. Proper packaging of materials	3.69	1.039	6.0	Much Needed
6. Product development skills	3.87	1.060	2.0	Much Needed
7. Promotion of products	3.74	1.054	5.0	Much Needed
<b>OVERALL</b>	<b>3.77</b>	<b>1.00</b>		<b>Much Needed</b>

**Legend:** 1.00-1.80 Not Needed; 1.81-2.60 A Little Bit Needed; 2.61-3.40 Needed; 3.41-4.20 Much Needed; 4.21-5.00 Very Much Needed

As evident in Table 9, the first much needed training of the participants concerning oral communication was effective oral communication with a 4.05 weighted mean (SD= 0.912846), followed by mechanisms to achieve this. Learning the technical or superficial language component was also much needed but obtained the lowest numerical result, 3.91 (SD= 0.914805).

**Table 9.***Training Needs of PCG-TI Faculty in terms of Oral Communication*

Oral Communication	Weighted Mean	Standard Deviation	Ranking	Verbal Interpretation
1.Effective oral communication	4.16	.913	1.0	Much Needed
2.Phonemic/phonetic skills development	3.91	.915	3.0	Much Needed
3.Approaches to effective oral communication	4.05	.925	2.0	Much Needed
<b>OVERALL</b>	<b>4.04</b>	<b>0.92</b>		<b>Much Needed</b>

**Legend:** 1.00-1.80 Not Needed; 1.81-2.60 A Little Bit Needed; 2.61-3.40 Needed; 3.41-4.20 Much Needed; 4.21-5.00 Very Much Needed

Table 10, on the other hand, shows a similar result, with oral communication having effective written communication as the most much needed training of the participants garnering a weighted mean of 4.03 (SD= 0.915318). Among the three areas, the participants ranked business correspondence third. Overall, the three areas listed here received much needed verbal interpretation.

**Table 10.***Training Needs of PCG-TI Faculty in terms of Writing Skills*

Writing Skills	Weighted Mean	Standard Deviation	Ranking	Verbal Interpretation
1.Business correspondence	3.76	1.021	3.0	Much Needed
2.Approaches to effective writing	3.97	.912	2.0	Much Needed
3.Effective written communication	4.03	.915	1.0	Much Needed
<b>OVERALL</b>	<b>3.92</b>	<b>0.95</b>		<b>Much Needed</b>

**Legend:** 1.00-1.80 Not Needed; 1.81-2.60 A Little Bit Needed; 2.61-3.40 Needed; 3.41-4.20 Much Needed; 4.21-5.00 Very Much Needed

Presented in Table 11 is the perceived need of the PCG-TI faculty for management skills. With a weighted mean of 4.07 (SD= 0.91209), the respondents thought that training in management skills is much needed. In particular, leadership for the effective administration of students was ranked first (M= 4.15; SD= 0.892825), while

positive behavioural management dealing with apathy and negativity was ranked last with a mean of 3.97 (SD= 0.962008).

**Table 11.**

*Training Needs of PCG-TI Faculty in terms of Management Skills*

Management Skills	Weighted Mean	Standard Deviation	Ranking	Verbal Interpretation
1.Positive behavioral management dealing with apathy (lack of interest) and negativity (unconstructiveness)	3.97	.962	5.0	Much Needed
2.Personnel effectiveness and leadership seminars	4.11	.923	3.0	Much Needed
3.Leadership for the effective administration of students	4.15	.893	1.0	Much Needed
4.Planning and managing equivalency and accreditation	4.12	.889	2.0	Much Needed
5.The art of making meetings work	4.01	.893	4.0	Much Needed
<b>OVERALL</b>	<b>4.07</b>	<b>0.91</b>		<b>Much Needed</b>

**Legend:** 1.00-1.80 Not Needed; 1.81-2.60 A Little Bit Needed; 2.61-3.40 Needed; 3.41-4.20 Much Needed; 4.21-5.00 Very Much Needed

In terms of information, communication, and technology, as shown in Table 12, the faculty members also considered this area as much needing training, as indicated by an overall mean of 4.08 (SD= 0.879983). The use of computers, their maintenance, security, and internetworking, and the use of Microsoft Office applications were of the same highest rank, while the preparation of teachers to teach with technology and to design multimedia instructional materials were last in rank.

**Table 12.**

*Training Needs of PCG-TI Faculty in terms of Information, Communication and Technology*

ICT	Weighted Mean	Standard Deviation	Ranking	Verbal Interpretation
1.Preparing teachers to teach with technology	4.01	.871	4.5	Much Needed
2.Designing multimedia instructional materials	4.01	.894	4.5	Much Needed
3.Computer use, maintenance, security and internetworking	4.13	.885	1.5	Much Needed
4.Microsoft office applications (word, power point, excel, publisher)	4.13	.862	1.5	Much Needed
5.Computerization of grades and enrolment systems	4.12	.889	3.0	Much Needed
<b>OVERALL</b>	<b>4.08</b>	<b>0.88</b>		<b>Much Needed</b>

**Legend:** 1.00-1.80 Not Needed; 1.81-2.60 A Little Bit Needed; 2.61-3.40 Needed; 3.41-4.20 Much Needed; 4.21-5.00 Very Much Needed

Table 13 summarizes the responses of the 150 PCG-TI faculty respondents concerning their training needs. The table shows that all the evaluation criteria were perceived by the respondents as areas where they need much training, as indicated by the overall mean of 3.98 (SD=0.03489054), verbally interpreted as 'much needed'.

**Table 13.**

*Summary of the Training Needs Areas of PCG-TI Faculty*

Evaluation Criteria	Weighted Mean	Standard Deviation	Ranking	Verbal Interpretation
Instruction	4.08	0.9	1.5	Much Needed
Research	4	0.888164	5	Much Needed
Extension	3.89	0.91542	7	Much Needed
Production	3.77	0.995952	8	Much Needed
Oral Communication	4.04	0.917653	4	Much Needed
Writing Skills	3.92	0.949434	6	Much Needed
Management Skills	4.07	0.91209	3	Much Needed
ICT	4.08	0.879983	1.5	Much Needed
<b>Overall</b>	<b>3.98</b>	<b>0.03489054</b>		<b>Much Needed</b>

It can be gleaned from Table 13 that the respondents viewed the areas of Instruction and ICT as the areas where they need the training the most. At the same time, production was their least priority, even if this has a verbal interpretation of much needed.

#### **4.3 Are there significant differences in the training needs of the PCG-TIs faculty when grouped according to their profile?**

To test whether there are significant differences in the training needs of the PCG-TI faculty and their age, the Kruskal Wallis H Test was used. Table 14 shows that upon running the data, the training needs of the PCG-TI faculty did not differ significantly when their age brackets were considered. These no significant differences are indicated by the p-values, which are higher than 0.05.



**Table 14.***Comparison of Training Needs of PCG-TI Faculty and their Age*

Training	Age	Mean Rank	p-value	Decision	Remarks
Instruction	25-34 years old	76.10	0.966	Failed to Reject Ho	Not Significant
	35-44 years old	74.74			
	45-54 years old	72.36			
Research	25-34 years old	74.72	0.956	Failed to Reject Ho	Not Significant
	35-44 years old	76.74			
	45-54 years old	77.79			
Extensions Services	25-34 years old	73.79	0.806	Failed to Reject Ho	Not Significant
	35-44 years old	78.31			
	45-54 years old	80.14			
Production	25-34 years old	74.72	0.957	Failed to Reject Ho	Not Significant
	35-44 years old	76.94			
	45-54 years old	76.57			
Oral Communication	25-34 years old	74.41	0.163	Failed to Reject Ho	Not Significant
	35-44 years old	81.59			
	45-54 years old	49.57			
Writing Skills	25-34 years old	74.70	0.756	Failed to Reject Ho	Not Significant
	35-44 years old	78.45			
	45-54 years old	66.64			
Management Skills	25-34 years old	75.62	0.27	Failed to Reject Ho	Not Significant
	35-44 years old	78.91			
	45-54 years old	50.93			
ICT	25-34 years old	74.36	0.414	Failed to Reject Ho	Not Significant
	35-44 years old	80.34			
	45-54 years old	58.57			

***Significant at 0.5 Significant Level***

Table 15 presents the result of the Kruskal Wallis H Test conducted on the data on training needs and educational attainment of the PCG-TI faculty members. The test result showed no significant differences in the training needs of the respondents when their educational attainment was considered. The higher than 0.05 p-values indicate these no significant differences.

**Table 15.***Comparison of Training Needs of PCG-TI Faculty and their Educational Attainment*

Training	Educational Attainment	Mean Rank	p-value	Decision	Remarks
Instruction	College Level	108.07	0.122	Failed to Reject Ho	Not Significant
	College Graduate	74.03			
	Vocational	71.50			
Research	College Level	103.86	0.148	Failed to Reject Ho	Not Significant
	College Graduate	74.76			
	Vocational	61.50			
Extensions Services	College Level	108.71	0.102	Failed to Reject Ho	Not Significant
	College Graduate	74.26			
	Vocational	66.29			
Production	College Level	112.79	0.05	Failed to Reject Ho	Not Significant
	College Graduate	74.26			
	Vocational	62.29			
Oral Communication	College Level	111.21	0.074	Failed to Reject Ho	Not Significant
	College Graduate	73.63			
	Vocational	76.07			
Writing Skills	College Level	93.21	0.524	Failed to Reject Ho	Not Significant
	College Graduate	74.51			
	Vocational	77.07			
Management Skills	College Level	112.29	0.063	Failed to Reject Ho	Not Significant
	College Graduate	73.91			
	Vocational	69.57			
ICT	College Level	98.36	0.319	Failed to Reject Ho	Not Significant
	College Graduate	74.73			
	Vocational	67.57			

***Significant at 0.5 Significant Level***

Comparing the training needs of the PCG-TI and their years in service, Kruskal Wallis H Test shows no significant differences between the two, as shown in Table 16. The p-values were higher than 0.05, which indicated no significant differences. This means that regardless of years in service, the respondents have similar training needs.

**Table 16.***Comparison of Training Needs of PCG-TI Faculty and their Years in Service*

Training	Years in Service	Mean Rank	p-value	Decision	Remarks
Instruction	1-7 years	72.20	0.731	Failed to Reject Ho	Not Significant
	8-15 years	77.21			
	16-25 years	79.43			
Research	1-7 years	70.88	0.258	Failed to Reject Ho	Not Significant
	8-15 years	75.56			
	16-25 years	89.18			
Extensions Services	1-7 years	71.93	0.342	Failed to Reject Ho	Not Significant
	8-15 years	74.94			
	16-25 years	88.18			
Production	1-7 years	72.18	0.707	Failed to Reject Ho	Not Significant
	8-15 years	76.95			
	16-25 years	80.40			
Oral Communication	1-7 years	69.81	0.335	Failed to Reject Ho	Not Significant
	8-15 years	80.80			
	16-25 years	74.03			
Writing Skills	1-7 years	74.01	0.595	Failed to Reject Ho	Not Significant
	8-15 years	74.20			
	16-25 years	84.53			
Management Skills	1-7 years	72.02	0.674	Failed to Reject Ho	Not Significant
	8-15 years	78.66			
	16-25 years	74.88			
ICT	1-7 years	71.80	0.623	Failed to Reject Ho	Not Significant
	8-15 years	76.89			
	16-25 years	81.73			

***Significant at 0.5 Significant Level***

To test whether there were significant differences in the training needs of the PCG-TI faculty and their years in teaching, the Kruskal Wallis H Test was used. Table 17 shows that upon running the data, the training needs of the PCG-TI faculty did not differ significantly when their years in teaching were considered. These no significant differences are indicated by the p-values, which are higher than 0.05.

**Table 17.***Comparison of Training Needs of PCG-TI Faculty and their Years in Teaching*

Training	Years in Teaching	Mean Rank	p-value	Decision	Remarks
Instruction	1-5 years	75.97	0.973	Failed to Reject Ho	Not Significant
	6-12 years	74.03			
	12-20 years	75.94			
Research	1-5 years	76.62	0.865	Failed to Reject Ho	Not Significant
	6-12 years	73.43			
	12-20 years	69.94			
Extensions Services	1-5 years	77.70	0.368	Failed to Reject Ho	Not Significant
	6-12 years	73.35			
	12-20 years	56.00			
Production	1-5 years	78.15	0.454	Failed to Reject Ho	Not Significant
	6-12 years	70.57			
	12-20 years	62.63			
Oral Communication	1-5 years	76.57	0.857	Failed to Reject Ho	Not Significant
	6-12 years	73.79			
	12-20 years	69.06			
Writing Skills	1-5 years	78.42	0.344	Failed to Reject Ho	Not Significant
	6-12 years	70.44			
	12-20 years	59.50			
Management Skills	1-5 years	77.05	0.435	Failed to Reject Ho	Not Significant
	6-12 years	75.07			
	12-20 years	56.88			
ICT	1-5 years	75.75	0.856	Failed to Reject Ho	Not Significant
	6-12 years	76.57			
	12-20 years	67.44			

***Significant at 0.5 Significant Level***

Finally, Table 18 presents the Kruskal Wallis H test result on the data on IMO Model Courses attended by the PCG-TI instructors and their training needs. Similar to the previous tables, the p-values on each comparison area show no significant differences between the two variables being compared. The instructors' attendance in the different model courses seems to have no significant effect on their training needs.

**Table 18.***Comparison of Training Needs of PCG-TI Faculty and the Model Courses Attended*

Training	IMO Model Courses Attended	Mean Rank	p-value	Decision	Remarks
Instruction	Model 6.09	75.45	0.583	Failed to Reject Ho	Not Significant
	Model 3.12	73.35			
	Model 6.10	106.25			
Research	Model 6.09	74.45	0.764	Failed to Reject Ho	Not Significant
	Model 3.12	79.17			
	Model 6.10	91.50			
Extensions Services	Model 6.09	75.20	0.419	Failed to Reject Ho	Not Significant
	Model 3.12	73.87			
	Model 6.10	115.25			
Production	Model 6.09	76.74	0.417	Failed to Reject Ho	Not Significant
	Model 3.12	72.58			
	Model 6.10	37.75			
Oral Communication	Model 6.09	75.50	0.75	Failed to Reject Ho	Not Significant
	Model 3.12	73.81			
	Model 6.10	97.50			
Writing Skills	Model 6.09	75.05	0.447	Failed to Reject Ho	Not Significant
	Model 3.12	74.71			
	Model 6.10	113.50			
Management Skills	Model 6.09	74.99	0.917	Failed to Reject Ho	Not Significant
	Model 3.12	77.08			
	Model 6.10	86.00			
ICT	Model 6.09	74.28	0.743	Failed to Reject Ho	Not Significant
	Model 3.12	80.23			
	Model 6.10	88.25			

***Significant at 0.5 Significant Level***

The data show that the faculty members of the PCG-TIs belong to different age brackets, have reached different educational attainment and have varying length of teaching experiences.

In summary, according to this survey, the faculty members of the various PCG-TI are millennials who have completed their tertiary education and have a range of teaching experience. All of the PCG faculty members who participated this study completed

the IMO Model Course 6.09 while not all of the respondents took the IMO Model Course 3.12. With respect to their rating and the inferential statistics performed on the numerical data, the members of the PCG-TIs did not significantly differ in their view of their training needs when taking into account the characteristics of the instructor-participants. The same respondents discovered that instruction and ICT were the areas where they most need training. They also believed that the other aspects need a lot more attention.

#### 4.4 Faculty Development Program for the PCG-TI

The researcher has developed the following suggested faculty development program in light of the findings of the study of the training needs of the PCG-TI faculty and the evaluation of the various models of faculty development:

**Table 19.**

*Structure of FDP*

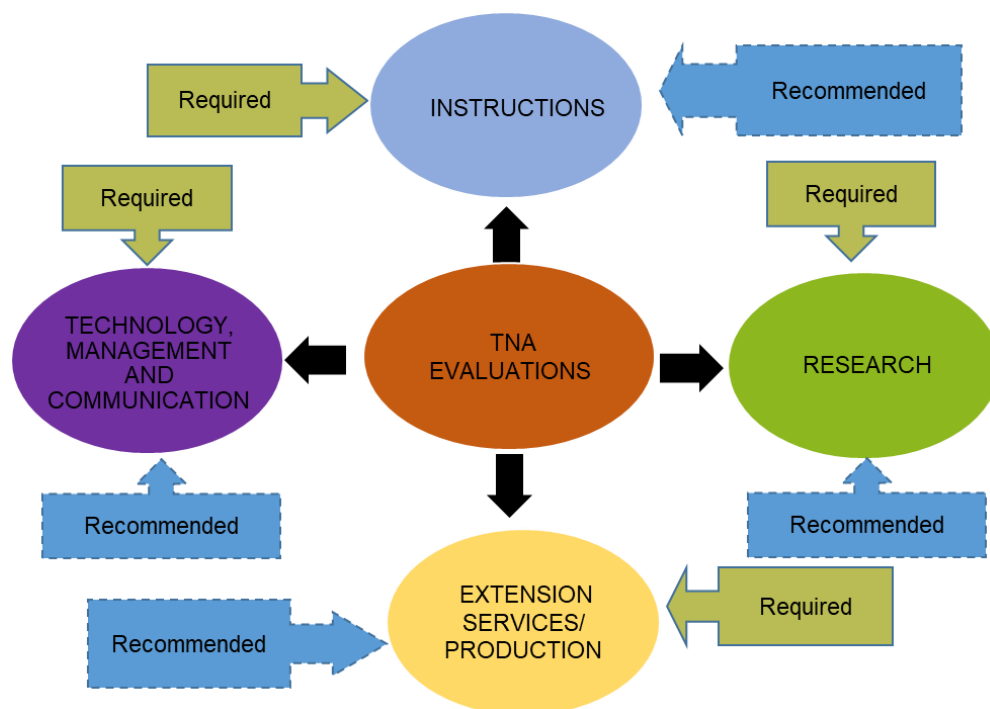
<p><b>I. Objectives of the program:</b> The faculty development program, in support of the mandate, vision and mission of the Philippine Coast Guard aims to enable its faculty members to acquire the necessary competencies to produce world class uniformed personnel who will ensure and carry out maritime safety, security, search and rescue, maritime law enforcement, and marine environmental protection.</p>	<p>Following are the specific objectives of the faculty development program:</p> <ol style="list-style-type: none"> <li>1. To equip the faculty with the necessary competencies related to the functions of an instructor: a. Teaching/instruction (including course design, course delivery, classroom management, assessment, and use of technology in the classroom); b. Research; c. Extension Service; and d. Production; and</li> <li>2. to equip the faculty members with the skills necessary to satisfy the educational needs of the 21<sup>st</sup> century learners.</li> </ol>
<p><b>II. Organization</b></p>	<p><b>A. Central Office Faculty Development Director-</b> under the CGETC, this person will be in-charge of collecting, evaluating, approving, monitoring, requesting budget for, and reporting the status of the proposed</p>

	faculty development programs/plans from all the PCG training institutes <b>B. Faculty Development Assistant Directors-</b> specifically assigned to prepare the faculty development program/plan for the faculty members of the training institute assigned to them. <b>C. Support Staff-</b> they provide clerical assistance and leg work to the director and assistant directors.
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With the objectives and the organization presented, the faculty development program services/activities are illustrated (Figure 11) as follows:

**Figure 12.**

*The Faculty Development Program for PCG-TIs*



The illustration presents the basic areas wherein each faculty member of PCG-TI needs to develop. Considering the three fundamental roles of a faculty member, instruction, research and extension are essentials. Added to the aforementioned are

technology, management and communication, and production as determined by the training needs analysis and the interviews conducted. In the middle of the figure are the Training Needs Analysis and Evaluations. These are the basic references in deciding what service to offer and plan for the faculty member. The evaluations may be from different sources- self-evaluation, evaluation from students, and evaluation from superiors. Each basic area is further classified into two kinds of training or services, required and recommended. For example, all the faculty members are required to take IMO Model Courses 6.09 and IMO Model Course 3.12. They may be recommended, or they may take other training or career advancements deemed necessary to improve their teaching performance further.



## **Chapter 5 Discussion**

### **5.1 Faculty Profile**

The participants' age implies that most faculty members teaching in the training institute have minimal academic ranks, and few fall in the senior faculty classification. This inference was based on what McChesney & Bischel (2020) imply that to have a high academic rank and be tenured, the age of the faculty must be 49. On the other hand, to be considered senior, they must teach for at least 5 to 10 years (Classification, 2019). This result also suggests that since only a few were characterized under two decades or less in the service and teaching, therefore, a limited number of faculty teaching in general and interdisciplinary courses. Young faculty members tend to teach in their area of specialization, unlike senior professors who have been in the profession for a longer time, gained more experience and competence, and may opt to teach in interdisciplinary courses. This finding is highlighted by the participant's need for additional instruction training.

The obtained data also reveal that the institute has no threat of losing its faculty due to retirement because the participants' age is far from retirement age. This data, supported by the years of service, leads to the inference that the younger faculty may need much training since only a few senior faculty can mentor them. In practice, retiring senior faculty (Thomas, n.d.) are members who mentor the younger ones.

Moreover, it is also noted that the age of the participants is not the same as the average age bracket characterized by teacher statistics (Teacher Statistics, 2013). This result, together with the numbers reflected in the years of service and teaching,

implies that a small number of faculty continue in the instruction track in the institute, for there is a decreasing number of young and senior faculty.

The year of service and educational attainment likewise manifest that the institute has no rigorous standards in recruiting its faculty member. The data included participants who had only a year in service and had a vocational course.

## **5.2 Training Needs of PCG-TI Faculty**

The data on training needs in terms of instruction leads to an inference that the faculty members have insufficient skills in material development. It furthers that the skills in instructional delivery are not enough for the participants. If the participants find it necessary to have training in materials development, this may also reflect that their instructional delivery is insufficient. One striking result shows that the participants find course syllabi preparation second to the last much needed. Looking at various instructional material development models such as Hutchinson & Waters (1987), syllabus preparation is part of the process.

Skills in multimedia for instructional use are likewise an essential need among the participants. This need is consistent with their response to instructional material development. The skill of utilizing multimedia material is a subset of instructional material development. This need may be highlighted by the shift of instructional delivery modality from face-to-face instruction to online instruction brought by the pandemic. Training in this area is an essential educational practice for faculty members to develop their digital skills to evaluate and select the most appropriate educational resources (Why Teachers Need, n.d.; Almerich et al., 2011).

The needs regarding instruction, in general, may reflect that the participants prioritize training needs related to instructional material development and utilization of ICT compared to learning the principles of adult learning and creative thinking skills development. This is so because, as Daouk-Öyry et al. (2016) reported, faculty must obtain competencies related to their teaching role. They must know how to facilitate instruction and present effective instructional delivery.

In an interview conducted with one Coast Guard Training and Doctrine Command personnel, the said office has a memorandum of agreement with one state university

who conducts a “...*training workshop to CGETDC personnel regarding upgrading the teaching proficiency and efficiency of PCG trainers.*” The same state university also offers education courses to PCG personnel so they can take the licensure examination for teachers (LET). Once they pass this, they will be certified and licensed to teach. The same interviewee added that they also have a memorandum of agreement with the Armed Forces of the Philippines’ Corps of Professors so the PCG instructors can participate in the latter’s qualification course for instructors.

Another interview, a training specialist of CGETDC, supported the answers of the interviewee mentioned above. To quote, this interviewee had the following answer when asked if their unit have training programs to enhance or improve their role as faculty:

*“Yes, there are trainings at CGETDC that aims to enhance the teaching efficiency and proficiency of the instructors. The CGETDC has a memorandum of agreement with Bulacan State University where the personnel are enrolled in Continuing Professional Teaching Education for them to earn 18 teaching units to qualify for the licensure examination for teachers.”*

The participants' response on training needs regarding research indicates that they have a low inclination to publication and that it is not their priority. This may suggest further that the PCG-TIs may not be practicing internationalization of research and collaboration. Although it is too early to infer such observation, especially since this was not included in the scope of the study, the trend in academic research among academic institutions includes these indicators in the study of internationalization (Woldegiyorgis et al., 2018; Antelo, 2012).

Another remarkable observation concerning this area is identifying data analysis skills as the participants' topmost needed area. Literature and several scholars say that researchers' most challenging part is constructing a proposal/outline, introduction, or main argument (Ambrose, 2022; Research Paper, n.d.), not data analysis. However, although it contrasts with the findings, this may have a positive note on the other side. The participants may have rich ideas on research topics, as indicated by their little

need to craft a proposal. This is so because proposals include a selection of topics and titles.

The result on technical writing needs is consistent with the needs of the various professionals that, indeed, research writing needs skills in technical writing. This finding is supported by the data from the interviews, wherein several participants mentioned that they finished courses not related to any language program.

The transfer of learning/technology/skills rated as the most needed among the participants highlights that they prioritize gaining additional knowledge on technology and skills, which are essential in their field; as Estimo (2020) pointed out, the attributes of maritime instructors' pedagogy. Technical skills and subject knowledge. This suggests further that they are dedicated to gaining self-development in terms of professional growth over administrative-inclined tasks such as establishing linkages and organizing people/communities. Also, the results imply that the training they need must be relevant to the courses that require skills needed in the satisfaction of their qualification, such as engine operation and ship handling.

It is noted in the results that the participants value output-oriented areas such as coming up with a feasibility study and product development. One interesting inference the results suggest, having income-generating processes/procedures ranked last, is that the discipline of the participants does not relate to the income-generating function.

As Estimo (2020) states, communication skill is one key attribute a maritime instructor must possess. The present study's findings support this by identifying practical oral communication skills as their topmost needed training. Faculty members of the PCG-TIs deliver instruction to some students, attend seminars and training, promote their programs, and meet possible linkages. These activities require oral communication.

Equally important among the participants in the development of their written communication. Oral and written skills are always a pair when it comes to achieving effective communication, the skills necessary among faculty members (Daouk-Öyry et al., 2016; Selvi, 2010;). As instructors, part of their core function is to deliver lessons in the most facilitative way, which is achieved through practical communication skills. In addition, as discussed above, faculty members perform roles other than

instructional delivery. They are expected to do academic writing such as research and reports and all require these communication skills.

The participants' response in the management skills area seemingly shows contrasting or gapped the identification of needs. They identified effective administration of students first, yet management relating to students' behaviour last. These two factors are linked together for the administration of students to achieve optimal results, must consider understanding the students' behaviour (Parsonson, 2012; Blazar & Kraft, 2017). With this observation, the faculty may need training or courses on basic education, including learning principles.

Results reflected in training needs concerning information, communication, and technology indicate that the participants have little knowledge of basic computer applications such as soft wares and programs. This is a remarkable result since the participants are millennials, and as Vogels (2019) states, this group is known to be digitally adept. Their responses are also substantially arranged in order of importance, first knowing the properties and functions to utilize and apply these in their instructional delivery. However, listing designing instructional material and utilizing technology on the last two ranks contrasted with their response in the instruction area, where they rated ICT use as their second priority training need. Also, it is surprising that they identified computerization of grades and enrolment system as their third much-needed training, where this skill is not a priority among faculty members. This may indicate that the participants may be doing some support staff function, specifically of the registrar's or IT technicians.

Generally, as the participants' training needs reveal that having instruction and ICT equally ranked as much needed, this suggests that they prioritize the skills related to the development of their core function, which is teaching, including all other related pedagogical skills (Selvi, 2010; Makovec, 2018; Ashby et al., 2018) to achieve students' academic success (Raja & Mynavathi, 2018; Cordeiro, 2010). This finding, since most of the participants fall young and junior faculty bracket, supports that the young faculty members are more focused on achieving instructional competence and mastery of their discipline. On the other hand, being the last, production suggests that

the participants do not consider this area significant to their career and function. The result complements this in research where publication is their least training need.

### **5.3 Faculty Development Models**

Six (6) faculty development models have been considered in this study. All of them are geared toward the improvement of the teaching performance of the faculty while developing other skills that help them become better teaching professionals. Kozanitis et al. (2009) noted that all the models, except for META, have a common goal of addressing the teaching skills development of the faculty. The same authors did not include META in their analysis as this did not seem to apply to their area of research, which is the implementation of the Conceiving, Design, Implementing, and Operating (CDIO). Moreover, differences were also noted among the different models, e.g., required or optional.

Considering the different features of the models, the Massachusetts Institute of Technology seems to be the most responsive to the needs of the PCG-TIs. The model does not only cater to new faculty members' need for training for effective instruction but also offers regular instructors' opportunities to grow and become better professionals continually. The META model is also very close as it targets two significant areas- the students' needs and the instructors' growth (Dittmar & McCracken, 2012). While the training offered is responsive to the changes in the education arena, the focus is on online teachers. On the other hand, it offers various services that the faculty may avail of. While this does not entail exact copying by PCG-TIs, the model's features may be easily adapted and applied in the different training institutes of PCG. Some relevant features of the other four models were also considered in developing the faculty development program for the PCG-TIs.

No faculty development model is absolute since different institutions have different needs. Also, the model is based not only on the general and common aim to improve the quality of teaching and learning but also on the context and nature of the institution implementing it. With this, it may be said that all six models contribute to developing the faculty development program for the PCG-TIs.

#### 5.4 Faculty Development Program

As mentioned by several authors (Ebberts & Wjinberg, 2017; Kamel, 2016; Makovec, 2018), faculty members play different roles. While the roles are not absolute and the same in all countries, there are fundamental roles expected of instructors in higher education institutions: instruction, research, and extension (Quitoras & Abuso, 2021). These three basic roles are targeted in the proposed faculty development program, in addition to communication, management, use of technology, and production.






The Commission on Higher Education (CHED) highlights the necessity of a faculty development program, as it plays a key role in ensuring educational quality (CHED, 2020). In the different training institutes of PCG, faculty development (FD) activities are supported and offered to the instructors. Among the activities mentioned by the interviewees include IMO Model courses, teaching efficiency, proficiency training, earning of educational units, English proficiency seminars, and Civil Service reviews, among others. The problem is that no program or plan is being followed or established. As mentioned by one of the interviewees, *"It (FDP) must be a written policy or circular so there will be continuity of programs."* No established program resulted in the differences in the FD activities given to PCG-TIS faculty.

Consequently, this brought some of the problems identified by the participants during the interview: training centres not being given equal opportunity in attending the IMO Model courses and discontinuity of the training. Another interviewee lamented that her credibility might be compromised because of missing schooling opportunities. This happened because of another problem that came out during the interview and was written to answer the open-ended question, the lack of personnel. Suppose a faculty development program for PCG-TIs is developed. In that case, this problem will be addressed since a plan will be drafted, a rotation of personnel attending faculty development activities will be scheduled, and the personnel's training and development will not be disrupted.

In the proposed FDP for PCG-TIs, the establishment of a specific office or unit under the Coast Guard Education, Training, and Doctrine Command (CGETDC) is

recommended. This unit, headed by a director, will be responsible for collecting, evaluating, approving, monitoring, requesting budget for, and reporting the status of the proposed faculty development programs/plans from all the PCG training institutes. The assistant directors assigned to the different training institutes are responsible for determining the needs of the faculty in their area based on their profiles and training needs analysis data. The training needs analysis has to be conducted regularly to ensure that the training required or offered to the faculty is relevant and is geared toward the professional improvement of the faculty.

As seen in the proposed faculty development figure, the faculty development activities that will be offered to the faculty depend on the training needs analysis, including the profiles and evaluation. Further, the FDP activities are labelled as required or recommended. The researcher deems it necessary to address all the eight areas illustrated in the figure, focusing more on technology, instruction, and management skills. These focus areas came out also during the interviews conducted. Some of the comments referring to training needs written by the participants were as follows:

-  professional development training
-  subject matter expertise
-  curriculum development training
-  leadership training
-  communication and technology training

One research instructor-interviewee had this as an answer to the question on the competences that should be developed among faculty members of PCG-TIs:

*“Communication skills for the instructors... not all instructors are good in communication. Also, the use of technologies and applications. The teaching methodologies must also be enhanced based on the needs of the subjects.”*

Aside from what was mentioned and identified through the survey and the interviews, other training or faculty services may be added under each area. Not every training or faculty development activity may be specified because doing so would limit and



may not answer the instructor's needs in a particular training institute. A plan from each training institute detailing the seminars, trainings, workshops, continuing education, and other services that are available to the faculty should be drafted and submitted.

## **Chapter 6 Conclusions And Recommendations**

This chapter briefly presents the conclusions from the findings conducted through literature review, survey, and interviews before finally proceeding to the recommendations to the different entities.

### **6.1 Conclusion**

Teaching is a profession that has been practiced as early as ancient times. Moreover, it is a continuous and constantly evolving profession. It goes with the changes of the times. With this premise, an instructor cannot stagnate and is still considered effective and efficient. They have to meet the demands of the students at the time they are learning while preparing them for the needs of their future profession. Furthermore, this research answered the following research questions:

*RQ1: What faculty development model best meets the needs of the PCG- TIs?*

The research revealed that the various models mentioned in the previous chapter each have distinct elements. Still, they all have the same general goal, which is to improve the teaching performance of faculty members while also developing other skills and competencies. In light of the characteristics of the models, it would appear that MIT is the most receptive to PCG-TIs. The program educates newly hired faculty members on how to teach effectively and assists experienced teachers in developing their skills further. The META model places an emphasis not only on the requirements of the students but also on the development of the teachers. Despite its concentration on online educators, the program is flexible enough to accommodate emerging trends in education.

Furthermore, it provides services for the professors. PCG-TIs can modify and apply the model's features without duplicating them. PCG-TI considered aspects of the other four models in developing its faculty training program.

*RQ2: How may the faculty profile of the PCG-TIs be described?*

The faculty profile based on survey and interview data revealed unequivocally that the faculty members of the different PCG-TI are millennials who finished tertiary education and have varying teaching years. The data also indicate that the institute is not at risk of losing its faculty due to retirement, as the average age of the participants is significantly younger than the retirement age. This evidence, bolstered by the number of years of service, suggests that younger faculty members may require significant training, as only a small number of senior academics can serve as mentors. It indicates that when the number of young and senior faculty diminishes, fewer professors continue in the institute's instruction track, as demonstrated by the years of service and teaching data. Further, as a requirement in maritime-related educational institutions, all the faculty members of PCG who participated in this study took their IMO Model Course 6.09 training. At the same time, not all of them finished the IMO Model Course 3.12 and 6.10.

*RQ3: How may the training needs of the PCG-TIs faculty be described?*

In general, since the participants' training requirements show that having instruction and ICT equally ranked as much needed, they prioritize the skills related to developing their core function—teaching—including all other related pedagogical skills to ensure students' academic success. Since the majority of the participants are young and junior faculty, it has been discovered that young faculty members are more concerned with developing their instructional expertise and discipline mastery. On the other hand, the fact that this production came last shows that the participants did not think this area was essential to their job and career. The outcome supports this in studies where publication is the area of training that is least required.

*RQ4: Are there significant differences in the training needs of the PCG- TIs faculty when grouped according to their profile?*

Considering the profiles of the instructor participants, the members of the PCG-TIs did not differ significantly in their perception of their training needs, as indicated by their ranking and the inferential statistics conducted on the numerical data. It came out that the same respondents determined instruction and ICT as the areas where they need the training the most. They also deemed the other areas as needing much attention. The participants' responses supported these numerical findings during the interview, which identified professional and curriculum development, communication, technology training, and content expertise advancement as their needs.

*RQ5: What faculty development program may be developed for the faculty of PCG-TIs?*

The features of the different faculty development models have been extracted and compared with the results of the training needs analysis conducted. Each model has features that address the needs of the PCG-TI faculty. These models and their features served as a foundation in the development of the faculty development program for the PCG-TI faculty. Further, through the result of theoretical and empirical research, no specific model meets the requirements of educational institutions like the PCG-TIs.

## **6.2 General Conclusion**

The faculty members of the different training institutes of the PCG prioritize the needs relevant to their core function, instruction, and skill-related tasks, such as instructional material preparation and the utilization of ICT. Of all the tasks identified, extension service was not the priority of the participants. It may be said that the respondents are into instruction and are aware that there's a particular group in their profession that specializes in or renders extension works. Besides, the nature of their job is service, which may be why they ranked it last.

Findings showed that there are continuing professional development and training and even schooling granted to the instructors, but there is no system being followed as of date. This results in unequal opportunities given to the faculty. Moreover, the career path of each faculty is not monitored- some are advancing while others are being left behind. This calls for the development of a faculty development program that will monitor and guide the faculty members of PCG-TIs toward their professional development when they need it without being left behind by the other faculty members and without compromising the performance of their primary duty as instructors.

Looking at the focuses and the set-up of the different faculty development models, it can be said that each is context-based, addressing what the institution that developed the model needs, and each model is implemented based on the nature of the institution, its students, and its faculty members. The Philippine Coast Guard cannot adopt a single model for implementation. It may be eclectic in addressing all the needs of the PCG-TI faculty.

Finally, a faculty development program is necessary to ensure that all the members of the faculty advance and grow in their careers. With their growth, the quality of education or training offered to the coast guardian is also ensured. Anchored on the mission and vision of the institution implementing it, a faculty development program consists of professional growth opportunities, programs, or activities given and offered to the instructors to keep them effective and efficient in their practice. In the PCG-TI, while there are activities or programs for the faculty, there is no system being followed, so only those who have the information and the luxury of time attend those activities. Further, the faculty development program developed for the PCG-TIs is not absolute and final in its forms. It still has a lot of processes to go through for improvement and quality assurance.

### **6.3 Recommendations**

***Philippine Coast Guard, thru the Coast Guard Education, Training and Doctrine Command (CGETDC)***, the proposed faculty development program may be considered for pilot testing so that it can be further improved. It is also recommended to create a specific unit or office with its branch or training institute sub-office to be in

charge of faculty development program implementation, evaluation, and monitoring. This way, each faculty member may be given a chance to improve and advance in their career. Linkages with other institutions may also be continued so that many options for faculty development may be offered to PCG-TI instructors. These institutions have different relevant programs that are helpful to PCG-TIs, so a connection with them should be maintained. Further, there may be other institutions that can be tapped for more faculty development services.

Additionally, it is suggested that CGETDC support and consistently encourage its faculty members to improve and grow professionally. They should be persuaded to engage in lifelong learning, so they do not stagnate and become ineffective.

Finally, CGETDC may potentially be able to enhance the recruitment standards. Facilitators must have extensive academic and practical knowledge of education. The central office may consider employing individuals with education units to facilitate training. If no applicants have earned education units, they may be sent to institutions that offer such programs before being assigned to teach at the various PCG training institutes.

When the proposed faculty development program is approved, the various ***PCG training institutes*** may be required to work actively and responsively to the demands of their respective faculty members. They may also be required to initiate activities or provide opportunities to help their instructors enhance their skills.

For the ***faculty members of PCG-TI***, appreciation of the concept of lifelong learning is highly recommended. This may serve as one of their motivations to keep on improving and becoming better. They may also initiate to propose faculty development services or programs they want to participate in.

#### **6.4 Limitations and Future Research**

This research focused on the faculty members of PCG-TIs as its respondent participants. As included in the proposed faculty development program, the

perception and views of the supervisors and the students were not considered. The numerical responses were substantiated by an interview with some of the respondents. The researcher did not conduct actual classroom observations nor look into the evaluation records of the instructors to triangulate the data. Finally, the researcher did not include the program finished by the instructors of PCG-TIs. This may also be a rich data source for understanding their teaching performance and needs.

Future researchers may consider the abovementioned limitations if they want to continue this study. They may also pilot-test the proposed faculty development program to check its relevance and effectiveness. Further, they may also include the whole population of PCG-TIs, together with the supervisors and students, in looking at the training needs of the instructors.

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## Appendices



### Appendix A Survey Questionnaire

The development of a faculty development program at the Philippine Coast Guard Training Institute is the subject of this survey, and you are cordially encouraged to take part. We would appreciate it if you could complete it in a few minutes. Please be aware that there will be no payment for your volunteer participation in this study. We must ask for your suggestions and opinions. Your comments will be handled in the strictest confidence. I sincerely appreciate your efforts and steadfast support.

### QUESTIONNAIRE

#### SECTION A

The purpose of this section is to learn about the respondent's profile. Please respond by writing in the designated spaces and checking the appropriate box.

1. **Name (optional):**
2. **Age:**
3. **Educational Attainment:**
4. **Current Office/Unit:**
5. **Current Designation/Position:**
6. **Collateral Duties/Designation:**
7. **Number of Years in the Service:**
8. **Number of Years in Teaching:**
9. **Educational Trainings Attended: (Please check the appropriate box.)**

☐

IMO Model 6.09

☐

IMO Model 3.12

☐

IMO Model 6.10

Training/seminar/conference	Inclusive Dates

**10. Other relevant training/seminars/conferences attended in the last five (5) years:**

**11. Research/es conducted and/or presented/published within (5) five years:**

Title of Research	Presentation/Publication (Please indicate the conference/journal and the date/s.)

**12. Service Activities**

Service Activity	Date/Year

## SECTION B

In this section, it pertains to the Training Needs Analysis (TNA) which is vital in the development of faculty development program . Below are the items under the function areas of a faculty. Kindly express your statement according to how it applies to you based on a scale of 1 to 5 where (1) not needed, (2) a little bit needed, (3) needed, (4) much needed, and (5) very much needed. Tick the appropriate box as required.

<b>I. Training Needs Under the function areas of faculty</b>					
<b>TNA Item</b>	<b>Not Needed (1)</b>	<b>A Little Bit Needed (2)</b>	<b>Needed (3)</b>	<b>Much Needed (4)</b>	<b>Very Much Needed (5)</b>
<b>A)Instruction</b>					
1.Module/instructional materials development	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
2.Critical and creative thinking skills development	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
3.Principles of adult learning	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
4.Utilization of multimedia materials for instruction	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
5.Relevant/appropriate methodology/pedagogy in teaching particular disciplines/program	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
6.Effective evaluation techniques and test construction/TOS	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
7.Course syllabi preparation	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
8.Curriculum enrichment	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Others: (Please specify)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<b>B)Research</b>					
1.Research proposal preparation	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
2.Research instrument formulation/development	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>



3.Panel evaluator skills	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
4.Technical writing skills	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
5.Analyzing gathered data	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
6.Presentation of research/es	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
7.Publication of research/es	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Others: (Please specify)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<b>C)Extension Services</b>					
1.Extension proposal preparation	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
2.Organizing people/communities	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
3.Conducting participatory rural appraisal	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
4.Transfer of learning/technology/skills	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
5.Establishing linkages	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
6.Empowering partner agencies/communities	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
7.Evaluation and monitoring	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Others: (Please specify)					
<b>D)Production</b>					
1. Income generating processes/procedures	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
2. Resource generation mechanism	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
3.Preparation of feasibility studies	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
4.Marketing of produced materials	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
5.Proper packaging of materials	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
6.Product development skills	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
7.Promotion of products	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Others: (Please specify)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

<b>II. Training Needs in Communicative, Management, and Information and Communication Technology Skills</b>					
<b>TNA Item</b>	<b>Not Needed (1)</b>	<b>A Little Bit Needed (2)</b>	<b>Needed (3)</b>	<b>Much Needed (4)</b>	<b>Very Much Needed (5)</b>
<b>A) Oral Communication</b>					
1. Effective oral communication	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
2. Phonemic/phonetic skills development	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
3. Approaches to effective oral communication	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Others: (Please specify)					
<b>B) Writing Skills</b>					
1. Business correspondence	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
2. Approaches to effective writing	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
3. Effective written communication	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Others: (Please specify)					
<b>C) Management Skills</b>					
1. Positive behavioral management dealing with apathy (lack of interest) and negativity (unconstructiveness)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
2. Personnel effectiveness and leadership seminars	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
3. Leadership for the effective administration of students	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
4. Planning and managing equivalency and accreditation	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
5. The art of making meetings work	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Others: (Please specify)					

<b>D)Information and Communication Technology Skills</b>					
1.Preparing teachers to teach with technology	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
2.Designing multimedia instructional materials	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
3.Computer use, maintenance, security and internetworking	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
4.Microsoft office applications (word, power point, excel, publisher)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
5.Computerization of grades and enrolment systems	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Others: (Please specify)					

13. What problems or issues usually affect the development of faculty in your institution?

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14. What can you say about the willingness or the drive of the faculty to develop?

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15. Does the faculty development have enough support from the management? Why or why not?

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Your participation in this survey is greatly appreciated.

## Appendix B Interview Instrument



### INTERVIEW INSTRUMENT

The establishment of a faculty development program at the Philippine Coast Guard Training Institute is the subject of this survey, and you are cordially encouraged to take part. We would appreciate it if you could complete it in a few minutes. Please be aware that there will be no payment for your volunteer participation in this study. We must ask for your suggestions and opinions. Your comments will be handled in the strictest confidence. I sincerely appreciate your efforts and steadfast support.

Name (optional): \_\_\_\_\_  
Gender: \_\_\_\_\_  
Rank: \_\_\_\_\_  
Educational Attainment: \_\_\_\_\_  
Unit: \_\_\_\_\_  
Position: \_\_\_\_\_  
Number of Years in the Service: \_\_\_\_\_  
Number of Years in Teaching: \_\_\_\_\_

No.	Questions	Respondent's Response
<b>I. On Faculty Role</b>		
1.	As faculty, what role do you perform (e.g., teaching, research & administrative)?	
2.	What are the challenges that you experience in the performance of your role?	
3.	Does your unit had training program to enhance or improve your role as faculty? If yes , can you cite the programs?	
<b>II. On Competences</b>		
4.	What are the competences that should be developed or needs to be improve? Cite and explain why.	
5.	Can you recommend any trainings to upscale or sustain those competences?	
6.	How this competences benefits you as a faculty in the performance of your role?	
<b>III. On Faculty Development</b>		

7.	How faculty development implemented in your training institute?	
8.	What kind of model of faculty development does your training institute had?	
9.	Do you think faculty development is important as in your professional development as a faculty and as individual?	
<b>IV. On the PCG Training Institute's Faculty Development Program</b>		
10.	Do you think PCG's faculty development program helped you become a better and more effective faculty member? In what ways?	
11.	What do you think are this faculty development program's weaknesses?	
12.	Do you think PCG's faculty development program needs to be improved further? In what areas?	
13.	How would you describe the ideal faculty development program for the PCG Training Institute?	