



Technical-Vocational Competencies of Senior High School Teachers: Basis for Comprehensive Training Program

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Approval Sheet

This thesis entitled **“TECHNICAL-VOCATIONAL COMPETENCIES OF SENIOR HIGH SCHOOL TEACHERS: BASIS FOR COMPREHENSIVE TRAINING PROGRAM”** prepared and submitted by **Flordeliza P. Franca** in partial fulfillment of the requirements for the degree **Master of Arts in Educational Management**, has been examined and recommended for approval and acceptance.

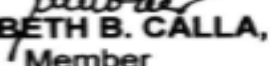

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ABSTRACT

This research assesses the technical-vocational competencies of senior high school teachers in Davao City during 2023-2024, focusing on beauty care, bread and pastry production, and consumer electronics servicing to recommend interventions. Employing a non-experimental quantitative research design, the study uses quota and random sampling to assess 150 respondent-teachers, ensuring a targeted and representative sample. Results reveal varying competency levels across domains is indicating a very competency. The study concluded that senior high school teachers exhibit a noteworthy level of competency in technical vocational fields, particularly in beauty care, bread and pastry production, and consumer electronics servicing. Targeted workshops are recommended for areas with lower competency levels, focusing on advanced techniques and emerging trends in beauty care. Recommendations included informing educational planners about curriculum development aligned with industry needs, guiding resource allocation for overall improvement in technical vocational education. Policy makers are urged to support targeted investments in vocational education, aligning programs with industry requirements. Technical vocational teachers: Apply study findings in teaching and prioritize ongoing professional development. Students: Utilize results for informed decision-making about education and career paths. A comprehensive training program for technical vocational is designed to maintain and add more knowledge.

Keywords: *Technical Vocational Competencies, Beauty Care, Bread and Pastry Production, Consumer Electronic Servicing.*

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**ETHICS COMPLIANCE CERTIFICATE**

This is to certify that the study entitled "**TECHNICAL-VOCATIONAL COMPETENCIES OF SENIOR HIGH TEACHERS: BASIS FOR COMPREHENSIVE TRAINING PROGRAM**" prepared and submitted by: **FLORDELIZA P. FRANCA** for the degree **MASTER OF ARTS IN EDUCATIONAL MANAGEMENT** has been examined by the Graduate School Research Ethics Committee (GSREC) and has been evaluated to comply with adequately the requirements for the research ethics protocol and is therefore, cleared for implementation using scientific procedures and international accepted ethical guidelines.

Given this 15th day of December 2023 at Rizal Memorial Colleges, Graduate School, Davao City, Philippines.




Dr. Guillermino V. Dimaligalig
Chair, Research Ethics Committee

DEDICATION

I dedicate my dissertation work to my family and many friends. A special feeling of gratitude to my loving parents, Corazon whose words of encouragement and push me for the future. My sisters Cleofeza have never left my side and are very special.

I also dedicate this dissertation to my many friends and employer who have supported me throughout the process. I will always appreciate all they have done.

I dedicate this work and give special thanks to my partner in life and my wonderful daughter and son CJ and JF for being there for me throughout the entire Masteral Program. Both of you have been my best cheerleaders.

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CHAPTER ONE INTRODUCTION

A. The Problem and Its Setting

Technical vocational competencies emphasize hands-on skills and practical knowledge relevant to specific trades or professions, ensuring individuals are well-prepared for the workforce. These competencies often include a combination of technical expertise, problem-solving abilities, and industry-specific knowledge, providing a foundation for successful and effective performance in various technical and vocational fields. However, challenges associated with technical vocational competencies include a potential mismatch between the skills acquired and the evolving demands of the job market, leading to issues of employability. Another concern is the need for consistent updates to training programs to align with rapidly changing technology and industry standards, ensuring that graduates remain competitive. Additionally, there may be disparities in the accessibility of quality technical vocational education, hindering opportunities for certain individuals or communities to acquire relevant skills.

In the United States, the first federal legislative and financial involvement in the development of formal vocational education programs in the United States required teacher preparation in vocational education. The first is focused on a traditional teacher preparation model, using colleges and universities with degree programs consisting of general education, technical content, and teacher pedagogy, including student teaching. An alternative pathway has relied on work experience in the discipline in which certification/licensure is sought, supplemented by a teacher education program at a university. Vocational education in the United States has suffered from negative perceptions of quality and effectiveness, and vocational teachers have also been subject to concerns regarding their teaching abilities. The alternative preparation route has had widely diverse requirements and pedagogical preparation from state to state, due to the decentralized US educational system.

As a result, vocational teacher preparation is not standardized across the United States. Another current challenge facing vocational teacher preparation in the United States is the reduction in financial support for vocational education programs, despite the need for skilled labor throughout the country. This has led to a corresponding reduced number of colleges and universities providing vocational teacher preparation programs. At a time when high-quality vocational teachers are needed, these and other concerns and challenges face the field (Chris, 2018).

Technical education and vocational training (TVET) serves as a key strategy for raising employability of the Philippine labor force and reducing the polarity between skilled and non-skilled workers along with employed and unemployed graduates since the development of the Philippine Qualifications Framework. This study establishes a working model or a Competency-based TVET Framework for Indigenous Peoples in the Philippines. It will serve as an intervention paradigm that will guide TVET curriculum developers and policymakers in identifying and integrating theoretical and culturally appropriate disciplines into the curricular design of education and skills training for Indigenous Peoples. It will be a new framework, separate from but parallel to the current TVET Framework. But, Technical vocational teachers in the Philippines face challenges related to competency levels and the quality of education. Many teachers lack the necessary competencies set by (TESDA) Technical Skills Development Authority (n. a., 2023).

In northern Mindanao, it was evident that the aspect of facilities and services is only deemed satisfactory, potentially stemming from inadequate budgetary allocations in this area. However, administrators receive excellent ratings, and teachers express very satisfactory opinions on Human Resource Development, Property Supply Management, Fiscal Management, and Physical Plant Facility, attributing these high assessments to their contentment with the successful implementation of various programs. Despite overall satisfaction with specific areas, the budget constraints may be limiting the enhancement of facilities and services (Alferez, 2012).

A similar study attempted to assess the implementation of the Strengthened Technical and Vocational Education Program Competency Based Curriculum (STVEP-CBC) in Region x. The study involved nine (9) DepED Technical Vocational High Schools in Region X Northern Mindanao. The respondents included twenty one (21) administrators and ninety one (91) teachers. Descriptive statistics were used to describe and to analyze the data. The study also utilized test for paired values to evaluate the difference between administrators and teachers assessments in the status of implementation of STVEP - CBC. The school administrators and teachers assessed the status of the implementation of STVEP-CBC along the aspects of its program. While the current study will employing a descriptive correlation research design to senior high school teachers in selected private schools in Davao City. With the disparity on the research locale, this current study may add a new body of knowledge on the topic. Hence, this proposed study is equally empirical.

➤ *Review of Significant Literatures*

Relevant literatures to the study are discussed in this section. The review is presented under the following sub-headings: Technical-vocation, beauty care, bread and pastry production, and consumer electronic servicing.

B. Technical Vocational

Alternative pathways that rely on work experience supplemented by teacher education programs (Md et al., 2018). Alternative pathways for teachers, relying on work experience supplemented by teacher education programs, offer a non-traditional route into the teaching profession, acknowledging the value of practical expertise alongside formal training. While these pathways can enhance the diversity of the teaching workforce, careful consideration is essential to ensure that educators possess a comprehensive skill set and pedagogical knowledge necessary for effective teaching. However, the alternative route lacks standardization across states, resulting in diverse requirements and pedagogical preparation (Tampang and Wonggo, 2018). The lack of standardization across states in alternative teacher certification routes leads to a wide variation in requirements and pedagogical preparation, potentially affecting the consistency and quality of educators entering the profession. This diversity in standards highlights the need for a more cohesive and nationally recognized framework to ensure that teachers, regardless of their entry route, are well-prepared and equipped with the necessary skills to meet the demands of the modern classroom.

Additionally, vocational schools using the alternative route struggle to recruit and retain teachers from private industry (Xueoing et al., 2018). Vocational schools utilizing the alternative route often face challenges in recruiting and retaining teachers from private industry due to disparities in compensation, limited career advancement opportunities, and the appeal of higher salaries and benefits in the private sector. This struggle not only hinders the acquisition of industry-specific expertise but also underscores the importance of addressing the systemic issues that hinder the attractiveness of teaching in vocational education.

Furthermore, financial support for vocational education programs has been reduced, leading to a decline in the number of colleges and universities offering vocational teacher preparation programs (Richard et al., 2012). The reduction in financial support for vocational education programs has contributed to a decline in the number of colleges and universities offering vocational teacher preparation programs, limiting the availability of formal pathways for individuals seeking to become vocational educators. This decline not only exacerbates the existing shortage of qualified vocational teachers but also underscores the importance of re-evaluating funding priorities to support the crucial role of vocational education in workforce development.

The majority of technical-vocational teachers in Bulacan State University are moderately competent in the various competencies identified by TESDA (Sergia and Panga, 2022). The observation that the majority of technical-vocational teachers are moderately competent in identified competencies suggests a potential need for targeted professional development and continuous training programs to enhance their skills and keep pace with evolving industry demands. Addressing this moderate competency level is crucial for ensuring that technical-vocational teachers can effectively prepare students for the demands of the workforce and contribute to the overall success of vocational education programs.

The Philippine educational system has seen rapid growth in the number of vocational education institutions and students, but TVET currently faces challenges such as unsatisfactory quality and difficulty in student employment (Jovita and Villanueva, 2018). While the rapid growth in the number of vocational education institutions and students indicates an increased focus on technical and vocational education and training (TVET), the system grapples with challenges such as unsatisfactory educational quality and difficulties in ensuring student employability. Addressing these challenges is crucial for the sustained success of TVET, requiring a comprehensive approach that involves improving curriculum standards, enhancing industry collaboration, and providing career guidance to students to align their skills with the evolving job market.

On the positive side, graduates of post-secondary TVET in the Philippines have significantly higher wages compared to those with secondary school education or below, and they are more likely to be employed (Quichen et al., 2019). The positive outcome of graduates from post-secondary TVET in the Philippines enjoying significantly higher wages compared to those with secondary school education or below emphasizes the potential economic benefits of investing in vocational education. Moreover, the increased employability of TVET graduates highlights the importance of recognizing and promoting the value of vocational education in addressing both individual career aspirations and broader workforce development goals.

To address the challenges faced by technical vocational teachers, further training and intervention programs are suggested (Paul et al., 2021). Addressing the challenges faced by technical vocational teachers necessitates the implementation of targeted training and intervention programs to enhance their pedagogical skills, stay current with industry trends, and effectively prepare students for the demands of the workforce. These initiatives should be designed collaboratively with industry stakeholders to ensure the alignment of teacher training with evolving job market requirements.

➤ *Beauty Care.*

Beauty care instruments and systems have been developed to provide multifunctional purposes for users. These include a beauty care instrument with a dressing case, which has a main machine that generates warm steam for skin protection and a dressing case for convenient storage and portability (He, 2015). Beauty care instruments and systems have evolved to offer users multifunctional benefits, as exemplified by a beauty care instrument featuring a dressing case. This innovative device incorporates a main machine designed to generate warm steam, providing effective skin protection. The inclusion of a dressing case not only ensures convenient storage but also enhances portability, catering to the practical needs of users seeking a comprehensive and accessible beauty care solution.

Another invention is a beauty skin care sprayer that uses a peristaltic pump and an air pump to atomize skin care liquid, resulting in micro liquid droplets for effective application (Zhu, 2019). An innovative beauty skin care sprayer stands out through its use of a peristaltic pump and an air pump, ingeniously designed to atomize skin care liquid. This dual-pump mechanism facilitates the production of micro liquid droplets, ensuring a finely atomized mist for precise and effective application on the skin. This inventive approach not only optimizes the delivery of skincare products but also enhances the overall user experience by promoting even and thorough coverage.

Additionally, a beauty and health-care towel has been designed with massage bulges and ventilation holes to promote blood circulation and enhance the absorption of skin care products (Xiaojun, 2012). The design of a beauty and health-care towel is distinguished by its incorporation of massage bulges and ventilation holes, strategically aimed at promoting blood circulation. These features not only contribute to a soothing massage effect but also serve to enhance the absorption of skin care products. This innovative towel concept combines the benefits of improved blood flow and effective skincare absorption, offering users a holistic approach to beauty and health maintenance. Furthermore, a weak laser skin-protection cosmetic lamp has been developed, which can be worn on the head and provides symmetrical irradiation for a good effect.

Lastly, a skin beauty apparatus combines high frequency electro- stimulation, low output laser irradiation, and vacuum generation to promote skin massage and disassemble subcutaneous fat (Inoue, et al., 2018). A groundbreaking weak laser skin-protection cosmetic lamp has been introduced, designed for convenient wear on the head, offering users a hands-free and targeted skincare solution. This innovative device employs symmetrical irradiation, ensuring uniform coverage and maximizing its efficacy. The incorporation of weak laser technology represents a forward-thinking approach to skin protection, emphasizing both convenience and effectiveness in promoting healthier skin.

It is a technology trend which includes virtual reality technology, diagnosis solutions and high-tech beauty devices. Recently, it has been widely used in home-beauty devices, beauty devices, customized cosmetics, skin & health care, AI and platform-related units. With the expansion of beauty-tech market, it is now able to provide customized solutions with innovative technology in beauty market (Jung-Won, 2022). The integration of this technology has become pervasive across various domains, finding extensive applications in home-beauty devices, beauty tools, customized cosmetics, and skin and health care. As it aligns with advancements in artificial intelligence and platform-related units, its versatility extends to offering tailored solutions in the beauty-tech market. The growth of this sector underscores its capability to deliver customized innovations, showcasing the evolving landscape of technology-driven solutions in the beauty industry.

➤ *Bread and Pastry Production.*

Bread and pastry production involves various techniques and ingredients to create high-quality products. Different types of flour, such as wheat flour, whole-wheat flour, corn flour, flax flour, and rice flour, are used to enhance the nutritional value and functional properties of pastry products (Lee et al., 2019). Various types of flour, including wheat, whole- wheat, corn, flax, and rice flour, are strategically employed to augment both the nutritional profile and functional characteristics of pastry products. Wheat and whole-wheat flour contribute to the traditional texture and structure, while corn flour may enhance moisture retention.

Additionally, the incorporation of flax and rice flour introduces unique nutritional benefits, such as added fiber and distinct flavors, showcasing a diverse and purposeful approach to pastry formulation. The use of cocoa powder in pastry bread manufacturing provides a unique flavor and extends the expiry date of the dough (Renzyaeva, 2022). Incorporating cocoa powder into pastry bread manufacturing not only imparts a distinctive and rich flavor but also serves as a natural means to extend the expiration date of the dough. The unique chemical composition of cocoa powder, including antioxidants and polyphenols, contributes to the preservation of the dough by mitigating oxidative processes. This dual functionality of enhancing flavor and increasing shelf life highlights the multifaceted benefits of incorporating cocoa powder in pastry bread production.

Danish pastry production equipment is designed to produce bread of different shapes, saving production space (Cai et al., 2020). Specialized Danish pastry production equipment is meticulously designed to facilitate the creation of bread in various shapes, offering versatility while optimizing production space. This design innovation allows for efficient utilization

of resources, accommodating the production of diverse pastry products without the need for excessive equipment or floor space. The adaptability of this equipment not only streamlines the manufacturing process but also enhances the overall efficiency and flexibility of Danish pastry production facilities.

The integrated management system in the bakery industry ensures the quality and safety of bread and pastry products (Jasmina et al., 2020). The implementation of an integrated management system in the bakery industry plays a pivotal role in ensuring the quality and safety of bread and pastry products. This comprehensive approach involves the coordination of various processes, from ingredient sourcing to production and distribution, with a focus on maintaining stringent quality standards. By integrating these aspects, the system enhances efficiency, minimizes risks, and ultimately guarantees that consumers receive bakery products that meet high-quality and safety benchmarks.

Additionally, the invention of a bread production technology incorporates xylitol as a sugar substitute, allowing individuals with hyperglycemia to enjoy bread while reducing sugar content (Lin et al., 2019). The innovative bread production technology incorporating xylitol as a sugar substitute represents a significant advancement, providing a viable option for individuals with hyperglycemia to enjoy bread without compromising their dietary restrictions. Xylitol, a sugar alcohol, not only imparts sweetness to the bread but also offers the advantage of a lower glycemic index compared to traditional sugars, contributing to better blood sugar management. This inventive approach addresses both the taste preferences and health considerations of individuals with hyperglycemia, offering a more inclusive and health-conscious option in bread consumption.

➤ *Consumer Electronics Servicing.*

Consumer Electronics Servicing is a qualification that provides students with knowledge and skills to assemble, maintain, and repair consumer electronic products. A study was conducted to assess the influence of educational attainment on the performance level of electronics technicians in this field. The study included 30 technical-vocational program graduates and 32 baccalaureate graduates. The results showed that there is no significant difference in the performance level of electronics technicians based on educational attainment. This implies that educational attainment does not affect the performance level of electronics technicians in consumer electronics servicing (Jemmalou et al., 2022). The Consumer Electronics Servicing qualification equips students with the necessary knowledge and skills to proficiently assemble, maintain, and repair a wide range of consumer electronic products. This comprehensive training encompasses various aspects of electronic device servicing, including diagnostics, troubleshooting, and component replacement. Graduates with this qualification are well-prepared to contribute to the field of consumer electronics, ensuring the functionality and longevity of electronic products through their expertise in servicing and repair. Many academics and young engineers believe that a new technology can stand on its own merits in the business world. However, interviews with technology entrepreneurs who have transitioned from academia to running successful businesses reveal a different story.

These entrepreneurs share their experiences and lessons learned, highlighting the challenges and victories they faced. They discuss how an academic mindset can both help and hinder entrepreneurs in dealing with ambiguity and navigating the business world (Tom, 2018). Many technology entrepreneurs have successfully transitioned from academia to spearheading businesses in the realm of consumer electronic servicing. Drawing on their academic backgrounds, these entrepreneurs often bring a deep understanding of technological nuances and innovative solutions to the consumer electronics service sector. Their unique blend of academic knowledge and entrepreneurial acumen has contributed to the development of successful ventures that address the growing demands and complexities of consumer electronic servicing.

In the field of consumer electronics servicing, a magnetic repair guide device has been developed. This device consists of multiple layers, including a transparent upper layer, a space for a magnetic repair guide, and a third layer with magnetic strength. The repair guide contains visual images and instructions for repairing consumer electronic products. The magnetic strength of the device allows it to hold ferromagnetic parts in place during the repair process (Aiken et al., 2017). In the realm of consumer electronics servicing, a notable advancement is the development of a magnetic repair guide device. Comprising multiple layers, this innovative device features a transparent upper layer, allowing technicians to visualize and precisely align components during repairs. The inclusion of a dedicated space for a magnetic repair guide in the second layer, along with a third layer exhibiting varying magnetic strengths, enhances the precision and efficiency of repairing electronic devices by aiding in component alignment and securing parts during the repair process. Methods of servicing consumer appliances are also discussed in one of the papers. These methods involve establishing a wireless connection to the appliance through a cellular communications network and receiving recorded log data from the appliance.

The data is used to determine if any errant events have occurred. This approach allows for efficient and effective servicing of consumer appliances (Mark et al., 2016). One of the papers delves into methods for servicing consumer appliances, introducing a modern approach that entails establishing a wireless connection to the appliance through a cellular communications network. This innovative technique enables service providers to remotely access and receive recorded log data from the appliance, streamlining diagnostics and troubleshooting processes. By leveraging wireless connectivity, technicians can efficiently analyze appliance performance, identify issues, and offer remote solutions,

contributing to a more agile and responsive consumer appliance servicing framework.

➤ *Synthesis*

The synthesis highlights the multifaceted landscape of technical vocational education and training (TVET), spanning diverse areas such as alternative pathways for teacher certification, challenges in vocational education funding and teacher recruitment, and the evolving field of beauty care, bread and pastries production, and consumer electronics servicing. The discussion underscores the need for standardized teacher certification routes and increased financial support for vocational education. Additionally, it emphasizes the potential economic benefits of investing in vocational education, as demonstrated by higher wages and increased employability for post-secondary TVET graduates. The integration of innovative technologies in beauty care, bread and pastries production and consumer electronics servicing further reflects the dynamic nature of these fields, demanding continuous training and intervention programs for professionals to stay abreast of industry trends. The integration of innovative technologies in beauty care, bread and pastries production, and consumer electronics servicing further reflects the dynamic nature of these fields, demanding continuous training and intervention programs for professionals to stay abreast of industry trends and effectively navigate the evolving landscape of their respective industries. The synthesis concludes by highlighting the importance of addressing challenges in TVET to ensure quality education and alignment with workforce demands, emphasizing the pivotal role of a dynamic and constructivist approach to pedagogy in preparing students for the demands of the rapidly evolving job market.

C. Theoretical and Conceptual Framework

This study is anchored on Experiential Learning Theory by David Kolb 1984, which is grounded in the philosophy that individuals acquire knowledge and skills more effectively through active engagement and hands-on experiences rather than passive reception of information. This approach emphasizes practical application and experiential learning.

It provides a robust framework for understanding and developing technical-vocational competencies among senior high school teachers. In this context, experiential learning emphasizes the cyclical process of concrete experiences, reflective observation, abstract conceptualization, and active experimentation. For senior high school teachers, this means engaging in hands-on experiences, such as industry internships or practical workshops, to directly apply and refine their technical-vocational skills. Through reflection and conceptualization, teachers can distill meaningful insights from their experiences, enhancing their understanding and proficiency in technical competencies. This iterative process aligns with the dynamic and practical nature of technical-vocational education, fostering a continuous cycle of learning and skill refinement.

Presented in Figure 1 is the IPO model for assessing technical-vocational competencies in beauty care, bread and pastries production, and consumer electronics servicing, the Input phase involves a thorough assessment of the existing competencies within each domain. This includes evaluating the skills and knowledge required for beauty care, the intricacies of bread and pastries production, and the technical aspects of consumer electronics servicing. The Process phase adopts a descriptive design, utilizing data-gathering methods such as questionnaires. Statistical tools, particularly the mean, are employed to analyze the collected data and identify areas of strength and improvement within the assessed competencies. The Output phase focuses on the development of a comprehensive training program tailored to address the specific needs and areas for enhancement identified through the assessment, ensuring a targeted and effective approach to vocational education in these domains.

In the Output phase, the emphasis lies in crafting a comprehensive training program that is intricately tailored to address the specific needs and areas for improvement pinpointed during the assessment phase. This targeted approach ensures that the vocational education program is not only responsive to the identified challenges but also aligns closely with the unique requirements of the domains in focus. By tailoring the training program to these specific needs, educators can maximize its effectiveness, providing learners with a skill set that directly aligns with the demands of their respective industries.

Input	Process	Output
<p>Assessment on Technical Vocational Competencies</p> <ul style="list-style-type: none"> - Beauty care - Bread and Pastries Production - Consumer Electronics Servicing 	<p>Descriptive Design</p> <p>Gathering of Data</p> <p>Questionnaire</p> <p>Statistical Tools</p> <ul style="list-style-type: none"> - mean 	<p>Comprehensive Training Program</p>

Fig 1 Conceptual Framework of the Study

D. Statement of the Problem

This quantitative descriptive research aimed to determine the extent of technical-vocational competencies of senior high school teachers among private schools in Davao City during the school year 2023-2024. Specifically, it aimed to answer the following questions:

➤ *What is the Level of Technical-Vocational Competencies of Senior High School Teachers among Private Schools in terms of:*

- beauty care;
- Bread and Pastries Production; and
- Consumer Electronics Servicing?

➤ *What Intervention Program can be Designed based on the Results of the Study?*

Moreover, for better understanding of the variables, the following terms are defined:

Technical vocational competencies refer to a set of specific and practical skills, knowledge, and abilities that individuals acquire through training and education in a particular technical or vocational field. These competencies are directly applicable to specific occupations or industries, emphasizing hands-on proficiency and expertise in tasks related to a chosen vocational area.

Beauty care competencies encompass the comprehensive set of skills and knowledge required in the field of personal grooming, skincare, and cosmetic treatments. Professionals with beauty care competencies are skilled in providing a range of beauty services, including skincare routines, makeup application, and other cosmetic treatments, to enhance individuals' overall appearance and well-being.

Bread and pastries production competencies entail a specialized set of skills and knowledge related to the creation of various baked goods, including bread, cakes, pastries, and other confections. Professionals with competencies in bread and pastries production are proficient in techniques such as dough preparation, baking, and pastry decoration, contributing to the production of high- quality baked products.

Consumer electronics servicing involves a specialized set of skills and knowledge related to the installation, maintenance, and repair of electronic devices and gadgets used by consumers. Professionals in this field are adept at troubleshooting and addressing issues in consumer electronics, ensuring the optimal functionality and performance of devices such as smartphones, computers, and home entertainment systems.

This study hopes to give benefits to the Educational Planners, Policy Makers, School Administrators, Technical Vocational teacher, Students and Future Researchers.

Studying technical vocational competence is essential for educational planners as it enables them to tailor educational programs to the specific needs of industries, ensuring graduates possess the practical skills demanded by the job market. This approach not only enhances workforce readiness and economic development but also allows educational planners to strategically allocate resources, address skills gaps, and foster social mobility, thereby creating a more responsive and impactful educational system.

Studying technical vocational competence is crucial for school administrators as it equips them with insights to align curriculum and training programs with real-world demands, ensuring that students acquire practical skills relevant to their future careers. This approach enhances the overall effectiveness of vocational education within schools, fostering the development of a skilled and adaptable workforce.

Studying technical vocational competence is crucial for teachers, enabling them to adapt teaching methods to industry trends, providing students with relevant education, and fostering effective vocational instruction, ultimately preparing students for successful careers.

Studying technical vocational competence is profoundly significant for students as it equips them with practical skills and knowledge that directly align with industry needs, enhancing their employability and career prospects. This focused education not only prepares students for specific vocational roles but also instills a sense of confidence and readiness to navigate the demands of the professional world upon graduation.

Studying technical vocational competence is significant for future researchers as it provides a foundation for investigating and advancing educational methodologies, policies, and practices in vocational training, contributing to the ongoing improvement and innovation in the field.

CHAPTER TWO METHOD

This chapter presents the method of the study, which includes research design, respondents of the study, research instrument, data gathering procedure, and data analysis.

➤ *Research Design*

To gather data and information, this study utilized non-experimental quantitative research design. The researcher quantified the data to be collected and generalize findings from a sample to the target population by using the quantitative technique of research. Pratiwi and Suzuki (2017) highlighted that a quantitative methodology is one where the researcher primarily employs post-positivist arguments to generate information (cause-and-effect reasoning, reduction to specific variables and hypotheses and concerns, calculation and observation, and theory testing), surveys, and data collection on predetermined instruments that generate statistical data. Before collecting data, the researcher meticulously plans every part of the analysis since he/she is aware of what he/she is trying to find.

Specifically, this study employed the descriptive design to describe systematically and accurately the facts and characteristics of a given population or area of interest. Descriptive studies is to describe studies is to describe individuals, events or conditions by studying them as they are in nature (Siedlecki, 2020).

In this context, the extent of technical-vocational competencies among senior high school teachers in private schools in Davao City was being investigated using a descriptive research design. This approach allowed for a detailed examination of the current state of technical-vocational competencies, encompassing areas such as industry-specific knowledge, instructional skills, and the integration of technology in teaching. Informing potential interventions to enhance the overall quality of technical-vocational education in the context of senior high schools in Davao City.

➤ *Research Respondents*

In this study, a quota sampling and random sampling were employed to gather a representative sample of teachers for a comprehensive assessment. Quota sampling teachers involves defining specific characteristics that researchers want to ensure are represented in the sample. For instance, if the study aims to assess technical-vocational competencies across different disciplines, quotas might be set to ensure a proportional representation from each discipline. Researchers could decide to include a certain number of teachers from each discipline until the overall sample size reaches 150. This approach allowed for targeted representation and ensures that the study captures the diversity of technical-vocational competencies across various subjects.

Further, random sampling involves selecting participants purely by chance, providing every teacher in the population an equal opportunity to be included in the study. In the context of this study, researchers used random sampling to select teachers without specific quotas based on disciplines. This method ensured that each teacher in the population has an equal chance of being selected, contributing to the overall generalizability of the findings.

Thus, the researchers opted for a combination of both sampling methods. In this technique, quota sampling was used to ensure adequate representation from each technical-vocational discipline, allowing for in-depth insights into the competencies within specific subjects. Simultaneously, random sampling could be employed to ensure a broader representation across all technical-vocational disciplines, offering a more comprehensive view of the competencies present in the senior high school teacher population. The strategic combination of quota and random sampling enhances the study's ability to draw specific insights from targeted groups while maintaining a degree of generalizability to the broader population of senior high school teachers in technical-vocational education.

The inclusion criteria for respondents in the study on the technical- vocational competencies of senior high school teachers were carefully delineated to ensure a targeted and representative sample. Eligible participants were limited to teachers currently employed in both private and public senior high schools, emphasizing inclusivity across various educational settings. Furthermore, teachers were actively engaged in instructing any technical vocational program, ensuring that the study captures insights from educators directly involved in this specialized field. The criterion of volunteerism is paramount, indicating that respondents willingly chose to participate in the study. This voluntariness not only upholds ethical research principles but also ensured that the data collected were derived from educators genuinely invested in contributing their perspectives and experiences to the exploration of technical-vocational competencies. The meticulous selection of inclusion criteria underscores the study's commitment to obtaining a comprehensive and authentic representation of senior high school teachers involved in technical-vocational education, fostering a nuanced understanding of their competencies across diverse educational contexts.

➤ *Research Instrument*

The researcher gathered primary data from the secondary school teachers private senior high school teachers of Davao City. The research instrument, titled "Competencies of Technical-Vocational Teachers of the College of Education: Bases for Comprehensive Training Program," authored by Jovita E. Villanueva in 2018, focuses on the variable of technical vocational competencies within the context of teacher training. The dimensions under examination included beauty care (9 items), bread and pastries production (17 items), and consumer electronics servicing (24 items), reflecting the diverse expertise required in technical-vocational education. For reliability testing, the instrument utilized statistical methods such as Cronbach's alpha to assess the internal consistency of items within each dimension, ensuring the stability of measurements. Concurrently, validity testing would involve expert reviews, ensuring that the items effectively capture the intended technical vocational competencies within the specified domains, providing a robust foundation for the development of a comprehensive teacher training program. The rating scale for this variable is as follows:

Table 1 Research Instrument

Range of Means	Description	Interpretation
4.21 - 5.00	Very High	The teacher displays high competence.
3.41 - 4.20	High	The teacher displays competence.
2.61 – 3.40	Moderate	The teacher displays moderate competence.
1.81 - 2.60	Low	The teacher displays slight competence.
1.00 – 1.80	Very Low	The teacher displays no competence.

➤ *Data Gathering Procedure*

The researcher underwent the following steps and procedures in gathering the data of this study:

Permission to Conduct the Study. The researcher asked an endorsement letter from the Dean of the Graduate School of Rizal Memorial Colleges with the consent of the thesis adviser to conduct the study. With the endorsement letter, the researcher sent a request letter to the respective school heads of the private schools in Davao City. Then, the researcher asked permission to the respective teachers to gather data.

Distribution and Retrieval of Survey Questionnaire. The researcher set a schedule to the school principals and to the respondents for the actual administration of the survey questionnaire. The schedule for the administration and retrieval of the questionnaires were be done from December to January 2024. The survey questionnaire made through printed copies; with this, the researcher strictly always abided the IATF health protocols such as wearing of mask and social distancing. However, google form was considered upon the request of the respondents.

Collation and Statistical Treatment of the Study. The data was collated and tabulated following the successful administration and retrieval of the survey questionnaires. Then, the data processed and analyzed employing appropriate statistical tools, and the results were interpreted. Conclusions and recommendations were then drawn.

➤ *Ethical Considerations*

During the conduct of the study, the researcher will strictly observe and follow the following ethics:

Informed Consent. The researcher ensured the respondents' voluntary participation, so it was required that they were not coerced into participating in this study; rather, they were the ones who are willing to participate. Therefore, before administering the survey, the researcher secured a letter of consent from the respondents outlining the purpose of the study and all other pertinent information that included in their participation approval. The informed consent was given and collected through a printed copy accessible to each of the respondents; hence, the researcher strictly followed the protocols of the IATF on health and safety, such as wearing a mask and observing social distancing.

Confidentiality. To comply with the Data Privacy Act of 2012, the researcher maintained the confidentiality of any personal information of the respondents that came into its knowledge and possession at all times (RA 10173). The respondents required to write their name in the printed survey questionnaire or in the Google form. Also, the collated and tabulated data were kept secured in the researcher's laptop, protected with a password. Additionally, the respondents' responses were not correlated with their real names; hence, each of them were requested to provide a pseudonym that utilized throughout the study process.

➤ *Data Analysis*

In analyzing and interpreting the result of the study, the researcher used the following statistical tools:

Mean was used to describe the extent of technical vocational competencies of senior high school teachers in terms of beauty care, bread and pastries production and consumer electronics servicing.

CHAPTER THREE

RESULTS AND DISCUSSIONS

This chapter encapsulates the findings and discussion derived from the gathered data, organized into four distinct sections. Firstly, it describes into the technical-vocational competencies of senior high school teachers. Then, it presents the training program that addresses the results of the study.

➤ *Technical-Vocational Competencies of Senior High School Teacher*

This section presents the level technical-vocational competencies of senior high school teachers in terms of: 1) beauty care, 2) bread and pastry, and 3) consumer electronic services.

Beauty Care. Table 1 provides a detailed exposition of the technical- vocational competencies possessed by senior high school teachers, specifically within the domain of beauty care. The table offers an in-depth breakdown and analysis of the diverse skills and expertise exhibited by these educators. It likely encompasses a range of competencies related to beauty care. This presentation serves as a comprehensive reference, offering insights into the proficiency and specialization of senior high school teachers in the beauty care field. The information contained in Table 1 is instrumental in understanding the capabilities and qualifications of teachers within the technical-vocational aspects of beauty care in the context of senior high school education.

Table 1, focusing on technical vocational competencies in Beauty Care, illuminates key aspects of senior high school teachers' competencies. Notably, the competency "Use nail care tools and equipment" is reported with a mean score of 3.73 and a standard deviation (SD) of 1.14, representing the lowest mean in the table. This suggests a moderate level of proficiency among teachers in employing nail care tools and equipment, although there is some variability in individual scores.

On the other hand, the competency "Evaluate and control hazards and risks" stands out with the highest mean of 4.03 and an SD of 1.04. This indicates a higher overall level of competence in assessing and managing hazards and risks within the beauty care context, with less variability among individual scores. These findings are instrumental in identifying specific areas for potential improvement, such as enhancing skills related to nail care tools, while also acknowledging and leveraging strengths, particularly in the adept management of hazards and risks. Such insights can guide targeted professional development initiatives and curriculum enhancements to further elevate the technical- vocational competencies of senior high school teachers in beauty care.

Also in Table 1, which outlines technical vocational competencies in beauty care, reveals an overall mean of 3.89 and a standard deviation (SD) of 0.91. This signifies a commendable level of competency among senior high school teachers in beauty care. The high mean score of 3.89 suggests a collective proficiency, indicating that, on average, teachers possess a strong grasp of the technical-vocational competencies relevant to beauty care. The relatively low standard deviation of 0.91 indicates a minimal spread or variability in the individual scores, suggesting a consistent and shared level of competence across the sampled teachers. These findings are indicative of a generally high standard in technical-vocational competencies within the context of beauty care among senior high school teachers. However, further exploration and analysis of specific competencies can provide more nuanced insights into areas of strength and potential areas for improvement, allowing for targeted enhancements in professional development or curriculum planning.

Table 2 Technical Vocational Competencies in terms of Beauty Care

No.	Statements	Mean	SD	Descriptive Equivalent
1	Prepare necessary tools and equipment for the specific nail care activity.	3.90	1.17	High
2	Use nail care tools and equipment.	3.73	1.14	High
3	Check condition of nail care tools and equipment.	3.76	1.08	High
4	Perform basic preventive and corrective maintenance.	3.74	1.17	High
5	Store nail care tools and equipment.	3.87	1.13	High
6	Identify hazards and risks.	3.95	1.10	High
7	Evaluate and control hazards and risks.	4.03	1.04	High
8	Identify nail structure, shapes and nail diseases/ disorders.	4.16	1.02	High
9	Create basic nail design.	4.25	.98	High
Overall		3.89	.91	High

The results mentioned is supported by He (2015) stating that beauty care instruments and systems have been developed to provide multifunctional purposes for users. These include a beauty care instrument with a dressing case, which has a main machine that generates warm steam for skin protection and a dressing case for convenient storage and

portability. Beauty care instruments and systems have evolved to offer users multifunctional benefits, as exemplified by a beauty care instrument featuring a dressing case. This innovative device incorporates a main machine designed to generate warm steam, providing effective skin protection. The inclusion of a dressing case not only ensures convenient storage but also enhances portability, catering to the practical needs of users seeking a comprehensive and accessible beauty care solution.

Another invention is a beauty skin care sprayer that uses a peristaltic pump and an air pump to atomize skin care liquid, resulting in micro liquid droplets for effective application (Zhu, 2019). An innovative beauty skin care sprayer stands out through its use of a peristaltic pump and an air pump, ingeniously designed to atomize skin care liquid. This dual-pump mechanism facilitates the production of micro liquid droplets, ensuring a finely atomized mist for precise and effective application on the skin. This inventive approach not only optimizes the delivery of skin care products but also enhances the overall user experience by promoting even and thorough coverage.

Technical Vocational Competencies in terms of bread and pastry production. Table 2 delineates the technical vocational competencies associated with bread and pastry production, providing a comprehensive overview of the specific skills and knowledge required in this domain. This structured presentation serves as a valuable reference for understanding and assessing the proficiency levels necessary for individuals engaged in the field.

The result for "Update continuously relevant industry knowledge" at 3.87 with a standard deviation of 0.97 suggests a high level of competence in staying abreast of industry developments among individuals involved in bread and pastry production. The relatively low standard deviation indicates a moderate level of agreement among respondents, reinforcing the consistency of this competency within the surveyed population.

On the other hand, the result for "Performing Workplace and Safety Practices" at 4.35 with a standard deviation of 1.02 signifies an even higher level of competence, classified as very high. This suggests that individuals engaged in bread and pastry production demonstrate exceptional proficiency in adhering to workplace safety practices. The larger standard deviation may indicate a slightly wider range of opinions among respondents, but the overall high mean score underscores a strong consensus on the excellence of safety practices within this technical vocational domain.

The overall result of Technical Vocational Competencies in bread and pastry production, with a mean score of 4.32 and a standard deviation of 0.99, is interpreted as Very High. This indicates an exceptional level of proficiency across suggests a consistent and widespread excellence in technical vocational skills related to bread and pastry production.

Table 3 Technical Vocational Competencies in terms of Bread and Pastry Production

No.	Statements	Mean	SD	Descriptive Equivalent
1	Identify and access key sources of information on the industry.	3.89	1.09	High
2	Access, apply and share industry information.	3.93	.97	High
3	Update continuously relevant industry knowledge.	3.87	.97	High
4	Practice personal grooming and hygiene.	3.99	1.02	High
5	Practice safe and hygienic handling, storage and disposal of food, beverage, and materials.			
		3.89	.98	High
6	Practice workplace safety, security and hygiene systems, processes, and operations.			
		3.93	1.02	High
7	Respond appropriately to faults, problems, and emergency situations in line with enterprise guidelines.	3.97	1.02	High
8	Maintains safe personal presentation standards.	4.15	1.09	High
9	Apply effective verbal and non-verbal communication skills to respond to customer needs.			
		4.21	.94	Very High
10	Provide prompt and quality service to customer.	4.19	.94	High
11	Handles queries promptly and correctly in line with enterprise procedures.			
		4.19	.99	High
12	Handles customer complaints, evaluation, and recommendations.			
		4.14	.95	High
13	Developing and updating industry knowledge.	4.15	.91	High
14	Observing workplace hygiene procedure.	4.19	1.05	High

15	Select measuring instruments	4.26	1.02	Very High
16	Performing Workplace and Safety Practices	4.35	1.02	Very High
17	Providing Effective Customer Service	4.03	.73	High
Overall		4.32	.99	Very High

The technical vocational competencies of senior high school teachers, characterized by their very high competence, play a pivotal role in effectively imparting knowledge and skills related to bread and pastry production to students. Given the intricate nature of this culinary discipline, encompassing diverse techniques and ingredients, the teachers' proficiency becomes instrumental in guiding students through the intricacies of the process. Understanding various types of flour, including wheat flour, whole-wheat flour, corn flour, flax flour, and rice flour, is essential for enhancing both the nutritional value and functional properties of pastry products, as highlighted by research (Lee et al., 2019). The very high competence of senior high school teachers ensures that students receive thorough and accurate instruction, laying a solid foundation for their practical skills and theoretical knowledge in the field of bread and pastry production.

Furthermore, the utilization of cocoa powder in pastry bread manufacturing, as noted by Renzyaeva (2022), adds a unique flavor dimension while extending the expiry date of the dough. The expertise of senior high school teachers with very high competencies is crucial in guiding students through the precise techniques involved in working with cocoa powder, ensuring that students gain practical insights into flavor enhancement and dough preservation. In this way, the advanced competencies of teachers contribute significantly to the comprehensive education of students in the field of bread and pastry production.

Technical Vocational Competencies in terms of consumer electronic services. Table 3 presents a comprehensive overview of technical vocational competencies in the context of consumer electronic services. This table serves as a valuable reference, delineating the diverse set of skills and knowledge required for professionals engaged in the dynamic and rapidly evolving field of consumer electronics. The competencies outlined herein encompass a spectrum of expertise, ranging from diagnostic and troubleshooting skills to effective communication with customers, reflecting the multifaceted nature of technical vocational requirements in delivering quality electronic services.

The result for "Maintain measuring instruments," with the lowest mean of 3.94 and a standard deviation of 1.07 interpreted as High, indicates a solid yet slightly lower level of competence in the maintenance of measuring instruments within the realm of consumer electronic services. While the mean suggests a satisfactory proficiency, the interpretation as High, considering the context of technical vocational competencies, implies that professionals in this field generally exhibit reliability and effectiveness in preserving the accuracy and functionality of their measuring tools.

The implication of this result suggests that there is a foundational competency in maintaining measuring instruments, but there may be room for improvement or refinement of skills in this specific aspect. This insight could guide targeted training or skill development initiatives to enhance the precision and longevity of measuring instruments, ensuring that professionals in consumer electronic services are well-equipped to perform accurate diagnostics and assessments in their daily tasks.

Table 4 Technical Vocational Competencies in terms of Consumer Electronics Servicing

No.	Statements	Mean	SD	Descriptive Equivalent
1	Plan and prepare for task to be undertaken	4.32	.99	Very High
2	Prepare hand tools.	4.23	.95	Very High
3	Use appropriate hand tools and equipment.	4.30	.96	Very High
4	Maintain hand tools	4.20	.96	High
5	Carry out measurements and calculations.	4.17	1.06	High
6	Maintain measuring instruments.	3.94	1.07	High
7	Identify different kinds of technical drawings.	4.09	1.02	High
8	Interpret technical drawing.	3.98	1.02	High
9	Prepare/ make changes on electrical/ electronic schematic and drawings.			
		3.97	1.00	High
10	Assess quality/ receive materials	3.97	.97	High
11	Engage in quality improvement.	3.98	.99	High
12	Plan and prepare for task to be undertaken.	4.02	.99	High
13	Identify and explain the functions, general features and capabilities of both hardware and software.			
		4.17	.96	High
14	Prepare and use appropriate hardware and software according to task requirement.	4.19	.95	High

15	Use appropriate devices and procedures to transfer files/ data.	4.16	.96	High
16	Produce output/ data using computer system.	4.15	1.02	High
17	Maintain computer equipment and systems.	4.13	1.03	High
18	Input data into computer system	4.13	1.01	High
19	Produce output/data using a computer system	4.14	.93	High
20	Use basic functions of web browser to locate information.	4.11	.98	High
21	Maintain computer equipment and systems.	4.26	.94	Very High
22	Plan and prepare for termination/ connection of electrical wiring/ electronics circuits.	4.22	.98	Very High
23	Terminate/ connect wiring/ electronic circuit	4.29	.97	Very High
24	Test termination/ connections of electrical wiring and electronic circuit	4.33	.93	Very High
Overall		4.13	.64	High

The result for "Test termination/connections of electrical wiring and electronic circuit" with the highest mean of 4.33 and a low standard deviation of 0.93, interpreted as High, highlights an outstanding level of competence among professionals in the consumer electronic services sector. This result suggests a strong consensus among respondents regarding their exceptional proficiency in testing and ensuring the integrity of electrical connections and electronic circuits.

The implication of this result is that professionals in consumer electronic services demonstrate a high degree of expertise in a critical aspect of their field. This competency is fundamental for ensuring the proper functioning and safety of electronic devices. The low standard deviation further indicates a consistent high level of proficiency across the surveyed population. This insight underscores the strength of the workforce in this specific technical area and reinforces the importance of maintaining and potentially further enhancing this skill through continued training and development initiatives to uphold industry standards and best practices.

The overall mean of 4.13 and a low standard deviation of 0.64, interpreted as High, in the context of Technical Vocational Competencies in consumer electronic services indicates a consistently strong level of proficiency across various skill sets within this field. The high mean reflects a robust average competency level among professionals, while the low standard deviation suggests a high degree of agreement among respondents, indicating a uniform level of expertise. With an overall mean of 4.13 and a low standard deviation of 0.64, interpreted as High, Technical Vocational Competencies in consumer electronic services demonstrate consistently strong proficiency across diverse skill sets in this field, reflected in the robust average.

The very high technical vocational competencies of senior high school teachers are of great significance, especially in the context of Consumer Electronics Servicing (CES). As outlined in the study by Jemmalou et al. (2022), CES qualifications provide students with the knowledge and skills needed to assemble, maintain, and repair consumer electronic products. The advanced competencies of senior high school teachers ensure the effective transmission of these skills to students, facilitating a strong foundation in electronics servicing.

The very high technical vocational competencies of senior high school teachers in Consumer Electronics Servicing (CES) become particularly crucial in light of their role in training students for efficient and effective practices, as emphasized by Mark et al. (2016). The citation highlights the importance of using data to determine errant events, a methodology that aligns with the advanced competencies of teachers in CES.

Table 4 presents the summary of the Technical Vocational Competencies of Senior High School Teachers reveals varying proficiency levels across different domains. In beauty care, teachers exhibit a high competency level with a mean of 3.89 and a standard deviation of 0.91. Bread and Pastry Production domain demonstrates an even higher competency level with a mean of 4.32 and a standard deviation of 0.99, classified as Very High. In Consumer Electronic and Servicing, the mean of 4.13 and a low standard deviation of 0.64 denote a high competency level. The overall mean across all domains is 3.80, with a standard deviation of 0.90, indicating an extensive level of competency among senior high school teachers in technical vocational fields.

Table 5 Summary of the Technical Vocational Competencies of Senior High School Teachers

No.	Domains Technical Vocational Competencies	Mean	SD	Descriptive Equivalent
1.	Beauty care	3.89	.91	High
2.	Bread and Pastry Production	4.32	.99	Very High
3.	Consumer Electronic and Servicing	4.13	.64	High
	OVERALL	3.80	0.90	Extensive

This implies that senior high school teachers are well-equipped to provide students with a comprehensive education in various domains. Policymakers and educational institutions can leverage this strength to further enhance and diversify technical vocational programs, ensuring that students receive high-quality education across the board.

➤ *Comprehensive Training Program for Technical Vocational*

- *Rationale*

Technical vocational education plays a crucial role in preparing individuals for specific trades and industries. This program is designed to address the growing demand for skilled workers by providing practical, hands-on training in technical fields. The aim is to bridge the gap between theoretical knowledge and practical application, preparing participants for successful careers in various technical vocations.

- *Goals*

- ✓ Equip participants with the necessary skills and knowledge in their chosen technical field.
- ✓ Encourage participants to think critically, analyze situations, and apply solutions effectively.
- ✓ Prepare participants for the workforce by instilling professionalism, teamwork, and effective communication skills.
- ✓ Emphasize the importance of safety protocols and ethical practices within their respective industries.

- *Objectives*

Participants will acquire practical skills relevant to their chosen technical vocation through hands-on training and real-world simulations. Enable participants to analyze technical challenges, troubleshoot problems, and develop effective solutions in a practical context.

Develop professional skills, including teamwork, communication, time management, and adaptability, to enhance participants' readiness for the workplace. Educate participants on industry-specific safety measures and ethical considerations, ensuring responsible conduct in the workplace.

- *Implementation:*

The training program begins with a comprehensive Needs Assessment in the first two weeks, customizing subsequent training based on identified participant skills and goals. Weeks focus on establishing a Theoretical Foundation through lectures and study materials. Emphasize Hands-On Training with tailored sessions using simulation equipment, while involve Workplace Simulation for practical experience in teamwork and problem-solving. The program concludes in with Assessment and Certification, recognizing participants' proficiency in their technical vocation.

➤ *Action Plan (Beauty Care)*

Table 6 Action Plan (Beauty Care)

Key Result Area	Objectives	Strategies	Person Involve	Time Frame	Resources Needed	Expected Outcome
Program Design	Design a comprehensive beauty care training program	Conduct market research and needs assessments to identify industry trends	Program Coordinator, Market Researchers	Weeks 1-2	Market research tools, assessment materials	A tailored beauty care training program aligned with industry trends and participant needs
Skill Development	Enhance practical skills in beauty care techniques	Implement hands-on training sessions covering various beauty care practices	Beauty Instructors, Practitioners	Weeks 3-8	Beauty care equipment, practice materials	Participants acquire hands-on experience and proficiency in diverse beauty care techniques.
Product Knowledge	Improve knowledge of beauty care products and tools	Provide in-depth training on product ingredients, usage, and selection	Product Experts, Industry Specialists	Weeks 9-12	Beauty products, informational materials	Participants gain comprehensive knowledge of beauty care products and their appropriate usage.
Practical Assessments	Evaluate practical skills through	Conduct practical assessments to	Assessors, Beauty Instructors	Weeks 13-16	Assessment tools, evaluation criteria	Participants are assessed on

	assessments	gauge participants' skill proficiency				practical skills, ensuring competency and readiness for the
						beauty care industry.
Industry Exposure	Connect participants with beauty industry professionals	Organize industry visits, guest lectures, and networking sessions	Beauty Industry Experts, Networking Coordinator	Weeks 17-20	Transportation, venue arrangements	Participants establish connections with industry professionals, expanding networking opportunities for future career paths in beauty care.
Certification	Award certificates upon successful completion	Evaluate participants' overall performance and issue certificates accordingly	Certification Coordinators, Assessors	Weeks 20-23	Certification materials, evaluation tools	Participants receive certificates indicating successful completion and proficiency in beauty care, enhancing their credibility in the industry.

Table 7 Action Plan (Bread and Pastries)

Key Result Area	Objectives	Strategies	Person Involve	Time Frame	Resources Needed	Expected Outcome
Program Design	Design a comprehensive bread and pastry production training program	Conduct market research and needs assessments to identify industry trends	Program Coordinator, Market Researchers	Weeks 1-2	Market research tools, assessment materials	A tailored bread and pastry production training program aligned with industry trends and participant needs.
Foundational Skills	Develop fundamental skills in bread and pastry production	Implement hands-on training sessions covering basic techniques and principles	Baking Instructors, Culinary Experts	Weeks 3-8	Baking equipment, practice materials	Participants acquire foundational skills and knowledge in bread and pastry production techniques.
Recipe Development	Enhance skills in creating and adapting recipes	Conduct workshops on recipe development and modification	Culinary Experts, Recipe Developers	Weeks 9-12	Recipe ingredients, workshop materials	Participants gain proficiency in creating and modifying recipes for diverse bread and pastry products.
Quality Control	Implement quality control measures in production	Train participants on quality assessment and control techniques	Quality Assurance Specialists, Instructors	Weeks 13-16	Quality control tools, assessment criteria	Participants develop skills in maintaining high quality and consistency in bread and pastry production.
Industry Exposure	Connect participants with baking industry professionals	Organize industry visits, guest lectures, and networking sessions	Baking Industry Experts, Networking Coordinator	Weeks 29-32	Transportation, venue arrangements	Participants establish connections with industry professionals, expanding networking opportunities for future career paths in baking.
Assessment and Certification	Evaluate participants' understanding and	Conduct practical assessments and theoretical exams	Assessors, Examination Coordinators	Weeks 33-36	Evaluation tools, examination facilities	Certificates awarded upon successful completion, indicating

	skills					proficiency in bread and pastry production.
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Table 8 Action Plan (Consumer Electronic and Serving)

Key Result Area	Objectives	Strategies	Person Involve	Time Frame	Resources Needed	Expected Outcome
Program Design	Design a comprehensive consumer electronics servicing training program	Conduct market research and needs assessments to identify industry trends	Program Coordinator, Market Researchers	Weeks 1-2	Market research tools, assessment materials	A tailored consumer electronics servicing training program aligned with industry trends and participant needs.
Electronics Fundamentals	Provide theoretical knowledge in electronics theory	Develop modules covering basic electronics theory and components	Electronics Instructors, Subject Matter Experts	Weeks 3-8	Learning materials, multimedia tools	Participants acquire a solid understanding of electronics fundamentals, including theory and components.
Practical Troubleshooting	Enhance skills in diagnosing and repairing electronics	Implement hands-on sessions for diagnosing and repairing common electronic devices	Technical Instructors, Electronics Repair Specialists	Weeks 9-16	Diagnostic tools, practice materials	Participants develop practical skills in troubleshooting and repairing common consumer electronics.
Customer Service Skills	Improve communication and customer service skills	Conduct workshops on effective communication, client interaction, and problem-solving	Communication Trainers, Customer Service Experts	Weeks 17-20	Workshop materials, role-playing scenarios	Participants enhance communication and customer service skills, crucial for client interactions in the electronics servicing field.
Industry Exposure	Connect participants with electronics industry professionals	Organize industry visits, guest lectures, and networking sessions	Electronics Industry Experts, Networking Coordinator	Weeks 29-32	Transportation, venue arrangements	Participants establish connections with industry professionals, expanding networking opportunities for future career paths in electronics servicing.
Assessment and Certification	Evaluate participants' understanding and skills	Conduct practical assessments and theoretical exams	Assessors, Examination Coordinators	Weeks 33-36	Evaluation tools, examination facilities	Certificates awarded upon successful completion, indicating proficiency in consumer electronics servicing.

CHAPTER FOUR

CONCLUSION AND RECOMMENDATION

This chapter presents the conclusions that were drawn out of the findings of the study. This section further offers recommendations as to how the findings of this study can improve practice.

The synthesis advocates for standardized certification, increased funding, and highlights economic benefits in technical vocational education, especially in beauty care, bread and pastries production, and consumer electronics. It emphasizes the need for ongoing training to adapt to industry trends and stresses addressing challenges in TVET to align with workforce demands.

This quantitative descriptive research aimed to determine the extent of technical-vocational competencies of senior high school teachers among private schools in Davao City during the school year 2023-2024. Specifically, it aimed to answer the level of technical-vocational competencies of senior high school teachers among private schools in terms of beauty care; bread and pastries production; and consumer electronics servicing; and to recommend intervention program can be designed based on the results of the study.

This study utilized a non-experimental quantitative research design particularly descriptive approach. A quota sampling and random sampling were employed to 150 respondent-teachers for a comprehensive assessment. The inclusion criteria for respondents in the study on the technical-vocational competencies of senior high school teachers are carefully delineated to ensure a targeted and representative sample. Results of the analysis revealed the following:

The Technical Vocational Competencies of Senior High School Teachers reveals varying proficiency levels across different domains. In beauty care, teachers exhibit a high competency level with a mean of 3.89 and a standard deviation of 0.91. Bread and Pastry Production domain demonstrates an even higher competency level with a mean of 4.32 and a standard deviation of 0.99, classified as Very High. In Consumer Electronic and Servicing, the mean of 4.13 and a low standard deviation of 0.64 denote a high competency level. The overall mean across all domains is 3.80, with a standard deviation of 0.90, indicating an extensive level of competency among senior high school teachers in technical vocational fields.

Implement targeted workshops and training sessions focused on specific areas within beauty care where competency levels are relatively lower. This could include advanced techniques, emerging trends, or specialized skills to elevate the overall proficiency level.

➤ *Conclusion*

Based on the findings of the study, the following conclusions are drawn by the researcher:

The technical vocational competencies of senior high school teachers reveal a level of competency among senior high school teachers in technical vocational fields. Implement targeted workshops and training sessions focused on specific areas within beauty care where competency levels are relatively lower.

➤ *Recommendation*

Based on the foregoing conclusions, the following are recommended:

Educational planners can use the study of technical vocational competencies to inform curriculum development, aligning programs with industry needs, enhancing graduate employability, and guiding resource allocation for overall improvement in technical vocational education.

Policy makers should utilize the study of technical vocational competencies to shape policies supporting targeted investments in vocational education, aligning programs with industry requirements, and fostering initiatives for continuous professional development to enhance overall education quality.

Technical vocational teachers should integrate the study's findings, emphasizing crucial competencies for industry relevance in their teaching methods, and prioritize ongoing professional development to stay current with evolving trends for the continued enhancement of technical vocational education. Students are encouraged to utilize the study's results to make informed decisions about their educational and career paths, focusing on developing key technical vocational competencies for future success.

Future researchers are urged to build upon this study's insights, contributing to the ongoing advancements in technical vocational education and expanding the knowledge base in the field.

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Survey Questionnaire

Name (Optional): _____ School: _____

General Instruction: This adopted survey questionnaire is conducted to study to assess the extent of technical-vocational competencies of senior high school teachers in private High school of Davao City. Please be sincere and mark each statement with a check (✓) on the box/space provided that corresponds to your answer. Use the five-point Likert Scale below. Thank you and God bless!

Technical Vocational Competencies						
A. Beauty Care		5	4	3	2	1
1	Prepare necessary tools and equipment for the specific nail care activity.					
2	Use nail care tools and equipment.					
3	Check condition of nail care tools and equipment.					
4	Perform basic preventive and corrective maintenance.					
5	Store nail care tools and equipment.					
6	Identify hazards and risks.					
7	Evaluate and control hazards and risks.					
8	Identify nail structure, shapes and nail diseases/ disorders.					
9	Create basic nail design.					
B. Bread and Pastry Production						
1	Identify and access key sources of information on the industry.					
2	Access, apply and share industry information.					
3	Update continuously relevant industry knowledge.					
4	Practice personal grooming and hygiene.					
5	Practice safe and hygienic handling, storage and disposal of food, beverage and materials.					
6	Practice workplace safety, security and hygiene systems, processes and operations.					
7	Respond appropriately to faults, problems and emergency situations in line with enterprise guidelines.					
8	Maintains safe personal presentation standards.					
9	Apply effective verbal and non- verbal communication skills to respond to customer needs.					
10	Provide prompt and quality service to customer.					
11	Handles queries promptly and correctly in line with enterprise procedures.					
12	Handles customer complaints, evaluation, and recommendations.					
13	Developing and updating industry knowledge.					
14	Observing workplace hygiene procedure.					
15	Select measuring instruments.					
16	Performing Workplace and Safety Practices					
17	Providing Effective Customer Service					
C. Consumer Electronic Servicing						
1	Plan and prepare for task to be undertaken					
2	Prepare hand tools.					
3	Use appropriate hand tools and equipment.					
4	Maintain hand tools.					
5	Carry out measurements and calculations.					
6	Maintain measuring instruments.					

7	Identify different kinds of technical drawings.					
8	Interpret technical drawing.					
9	Prepare/ make changes on electrical/ electronic schematic and drawings.					
10	Assess quality/ receive materials					
11	Engage in quality improvement.					
12	Plan and prepare for task to be undertaken.					
13	Identify and explain the functions, general features and capabilities of both hardware and software.					
14	Prepare and use appropriate hardware and software according to task requirement.					
15	Use appropriate devices and procedures to transfer files/ data.					
16	Produce accurate and complete data according to the requirements.					
17	Maintain computer system					
18	Input data into computer.					
19	Produce output/ data using computer system.					
20	Use basic functions of web browser to locate information.					
21	Maintain computer equipment and systems.					
22	Plan and prepare for termination/ connection of electrical wiring/ electronics circuits.					
23	Terminate/ connect wiring/ electronic circuit					
24	Test termination/ connections of electrical wiring and electronic circuit					

APPENDICES

A. Letters of Permission to Conduct a Study



**THE RIZAL MEMORIAL COLLEGES, INC
GRADUATE SCHOOL**

RMC Buildings, Purok 5, Lopez Jaena & F. Torres, Sts,
Barangay 8-A Poblacion District, Davao City



OFFICE OF THE DEAN GRADUATE SCHOOL

MARA TAWAN DAMLA

School Administrator
DAMLA Training Institute of Technology
2nd Flr. HIJ Building, Matina Crossing
Davao City

Madam:

This is to respectfully endorse the request for permission of **MS. FLORDELIZA P. FRANCA** a candidate for Master's degree to conduct a study entitled "**TECHNICAL-VOCATIONAL COMPETENCIES OF SENIOR HIGH SCHOOL TEACHERS: BASIS FOR COMPREHENSIVE TRAINING PROGRAM**" in partial fulfillment for the course leading to the degree of Master of Arts in Educational Management (MA-EM).

Ms. Franca will coordinate with the school heads to avoid disruption of classes endeavor during these pandemic times.

Your support and concern for the educational growth of **Ms. Franca** is greatly appreciated.

Very truly yours,

PABLO F. BUSQUIT, PhD, FRIEdr
Dean, Graduate School

Received
maria J. Damla

B. Validation Sheets



THE RIZAL MEMORIAL COLLEGES, INC.

GRADUATE SCHOOL

Lopez-Jaena & Torres Sts. Davao City

Tel. No. 300-71-73



Validation Sheet for Quantitative Design

Name of Evaluator: MARY JANE R. VICENTE EdD

Degree: Doctor of Education

Number of years in teaching: 30 years

To the Validator: Kindly check the appropriate box for your validation

Points of Equivalent

5- Excellent	4-Very Good	3-Good	2-Fair	1-Poor					
					5	4	3	2	1
CRITERIA/INDICATORS									
1. CLARITY OF DIRECTIONS AND ITEMS									
The vocabulary level, language structure and conceptual level of the questions suit to the level of respondents. The directions and items are written in clear understandable manner.					✓				
2. PRESENTATION/ ORGANIZATION OF ITEMS									
The items are presented and organized in logical manner					✓				
3. SUITABILITY OF ITEMS									
The items appropriately represent the substance of the research. The questions are designed to determine the condition, properties and attitudes that are supposed to be measured.					✓				
4. ADEQUATENESS OF ITEMS PER CATEGORY									
The items represent the coverage of the research adequately. The number of questions per area category is represented enough of all the questions for the research.					✓				
5. ATTAINMENT OF PURPOSE									
The instrument as a whole fulfills the objectives for which it was constructed.					✓				
6. OBJECTIVITY									
Each item question requires only one specific answer that measures only one behavior and no aspect of the questionnaire has been suggested by the researcher.					✓				
7. SCALE AND EVALUATING RATING SYSTEM									
The scale adapted is appropriate for the items.					✓				

Remarks: Efforts to minimize response bias, such as using randomization techniques, enhance the credibility of collected data.

Validator



THE RIZAL MEMORIAL COLLEGES, INC.

GRADUATE SCHOOL

Lopez-Jaena & Torres Sts. Davao City

Tel. No. 300-71-73



Validation Sheet for Quantitative Design

Name of Evaluator: TRINIDAD E. COLARTE

Degree: Doctor of Education (EdD.)

Number of years in teaching: 33 years

To the Validator: Kindly check the appropriate box for your validation

Points of Equivalent

5- Excellent	4-Very Good	3-Good	2-Fair	1-Poor					
					5	4	3	2	1
CRITERIA/INDICATORS									
1. CLARITY OF DIRECTIONS AND ITEMS The vocabulary level, language structure and conceptual level of the questions suit to the level of respondents. The directions and items are written in clear understandable manner.					✓				
2. PRESENTATION/ ORGANIZATION OF ITEMS The items are presented and organized in logical manner					✓				
3. SUITABILITY OF ITEMS The items appropriately represent the substance of the research. The questions are designed to determine the condition, properties and attitudes that are supposed to be measured.					✓				
4. ADEQUATENESS OF ITEMS PER CATEGORY The items represent the coverage of the research adequately. The number of questions per area category is represented enough of all the questions for the research.					✓				
5. ATTAINMENT OF PURPOSE The instrument as a whole fulfills the objectives for which it was constructed.					✓				
6. OBJECTIVITY Each item question requires only one specific answer that measures only one behavior and no aspect of the questionnaire has been suggested by the researcher.					✓				
7. SCALE AND EVALUATING RATING SYSTEM The scale adapted is appropriate for the items.					✓				

Remarks: The questionnaire exhibits good validity, as individuals not involved in study find the item to be logically connected to the research topic.

TRINIDAD E. COLARTE, EdD.
Validator



THE RIZAL MEMORIAL COLLEGES, INC.

GRADUATE SCHOOL

Lopez-Jaena & Torres Sts. Davao City

Tel. No. 300-71-73



Validation Sheet for Quantitative Design

Name of Evaluator: MA EVA D. SIBLOS Ed.D

Degree: Doctor of Education

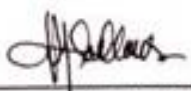
Number of years in teaching: 30 years

To the Validator: Kindly check the appropriate box for your validation

Points of Equivalent

5- Excellent	4-Very Good	3-Good	2-Fair	1-Poor				
CRITERIA/INDICATORS				5	4	3	2	1
1. CLARITY OF DIRECTIONS AND ITEMS The vocabulary level, language structure and conceptual level of the questions suit to the level of respondents. The directions and items are written in clear understandable manner.				✓				
2. PRESENTATION/ ORGANIZATION OF ITEMS The items are presented and organized in logical manner				✓				
3. SUITABILITY OF ITEMS The items appropriately represent the substance of the research. The questions are designed to determine the condition, properties and attitudes that are supposed to be measured.				✓				
4. ADEQUATENESS OF ITEMS PER CATEGORY The items represent the coverage of the research adequately. The number of questions per area category is represented enough of all the questions for the research.				✓				
5. ATTAINMENT OF PURPOSE The instrument as a whole fulfills the objectives for which it was constructed.				✓				
6. OBJECTIVITY Each item question requires only one specific answer that measures only one behavior and no aspect of the questionnaire has been suggested by the researcher.				✓				
7. SCALE AND EVALUATING RATING SYSTEM The scale adapted is appropriate for the items.				✓				

Remarks: Clear instructions are provided to participants, minimizing potential confusion and ensuring consistent responses.


Validator

C. Participants Informed Consents



THE RIZAL MEMORIAL COLLEGES, INC

OFFICE OF THE GRADUATE SCHOOL

RMC Building, Poblacion 7-A, Lopez Jaena & F. Torres, Sts.
Marfori Heights, Davao City

INFORMED CONSENT

Madam/Sir,

I am willing to participate in this study entitled **"TECHNICAL-VOCATIONAL COMPETENCIES OF SENIOR HIGH SCHOOL TEACHERS: BASIS FOR COMPREHENSIVE TRAINING PROGRAM"**.

JANICE SUELLO, I have fully understood what this undertaking will entail. The researcher has explained to me its purpose and objectives, methods of gathering data, the extent of my participation as well as remuneration, emoluments and other benefits that I will derive from my involvement.

I have not been forced or involuntarily induced to be involved in the study. I am aware that I can freely withdraw my involvement whenever I wish.

These guidelines will be thoroughly observed by the researcher and respondents are given the chance to agree to these conditions before joining the study. Respondents are asked to affix their signature as evidence of their agreement. This document when appended in the final manuscript as part of the appendices will appear with names of respondents stricken out to ensure anonymity.

Yours Truly,

FLORDELIZA P. FRANCA
Researcher

Signature of Respondent