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Implementation of Multi-Lingual Education in Technical Vocational Education (Tech-Voc) Schools

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ABSTRACT

Objectives: This study aimed to determine the extent of implementation of multilingual education in Technical-Vocational (Tech-Voc) schools in Region III. Specifically, it examined (1) the profile of teacher-respondents in terms of age, sex, civil status, highest educational attainment, and length of service; (2) the extent of implementation of multilingual education across areas of specialization—Beauty Care, Food Processing, Horticulture, Animal Production, and Personal Computer Hardware Servicing; (3) differences in implementation relative to teacher profile variables; and (4) the relationship between implementation and teacher profile variables.

Methodology: The study employed a descriptive research design. Data were gathered from Tech-Voc teachers using survey questionnaires. Statistical analyses included weighted means and tests of significance at the 0.05 level.

Key Findings: Results revealed that most teacher-respondents were female, aged 30–35, married, with MA units, and had 1–5 years of service. The extent of multilingual education implementation varied across specializations: Beauty Care (mean = 4.77, Highly Implemented), Food Processing (4.24, Implemented), Horticulture (4.85, Highly Implemented), Animal Production (4.65, Highly Implemented), and Personal Computer Hardware Servicing (4.00, Implemented). No significant differences or relationships were found between implementation levels and teacher profile variables.

Significance: The findings highlight that multilingual education is generally well-integrated in Tech-Voc schools, particularly in practical skill areas. However, teacher characteristics did not significantly influence implementation, suggesting that institutional practices and curriculum design play a more decisive role.

KEYWORDS: Multilingual education, technical vocational schools, teacher profile, implementation, Region III, vocational specializations

INTRODUCTION

Language plays a vital role in the teaching and learning process, particularly in Technical-Vocational (Tech-Voc) education where psychomotor skills are emphasized. In many vocational schools, the use of English as the primary medium of instruction poses challenges for students who struggle with comprehension. Instead of focusing on skill development, both teachers and learners often spend considerable time translating lessons into Filipino or local dialects, which hinders effective learning and performance.

The integration of mother tongue and multilingual strategies in education is increasingly recognized as a vital intervention for addressing the systemic barriers posed by English-only instruction. Several studies provide evidence-based support for the impact of language barriers and the efficacy of Mother Tongue-Based Multilingual Education (MTB-MLE) in various learning contexts. However, the effectiveness of modular distance learning is significantly hindered when students struggle with the medium of instruction. In the Philippines, research indicates that the lack of real-time communication and specialized linguistic support in modular formats creates substantial barriers to comprehension, particularly for learners who do not have a strong mastery of English (Johnson, 2020). Furthermore, the absence of interactive materials in these modules often limits engagement and the retention of complex technical content (Marschark & Hauser, 2020). These instructional challenges are often compounded by the context-reduced nature of the classroom or modular environment, where students must rely solely on linguistic cues without the benefit of situational or paralinguistic support (Metila et al., 2016).

National and international assessments consistently highlight a gap between official language policy and actual student performance. For instance, recent data from the Program for International Student Assessment (PISA) showed that Filipino students obtained an average score of 340 points in overall reading literacy, which was significantly lower than the OECD average of 487 points (PoliPapers, n.d.). This deficiency in oral and written English is strongly correlated with a student's overall academic ability, suggesting that language struggles act as a ceiling on broader educational achievement (DepEd Tangub City, 2020).

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Mother Tongue-Based Multilingual Education is positioned as an essential strategy for cognitive and socio-emotional development. By beginning instruction in a language, the learner understands best, schools can unlock a child's full potential and accelerate literacy acquisition (UNESCO, 2020). Studies suggest that providing a solid foundation in the first language (L1) facilitates the transition to and mastery of second (L2) and third (L3) languages, such as Filipino and English (PIDS, 2020). This bridging process allows learners to apply higher-order thinking skills developed in their native tongue to new linguistic contexts, thereby improving long-term academic outcomes (Metila et al., 2016; PIDS, 2020).

In vocational and inclusive education, bilingual and multilingual approaches are critical for ensuring that students can apply practical skills in real-world environments. Effective instruction in these settings requires linguistic scaffolding and simplified input to ensure that technical instructions are accessible to all learners (Lansang & Zamora, 2020). Because vocational students are preparing for global and multilingual workplaces, developing a varied language repertoire through code-switching and translanguaging is often more effective than rigid monolingual instruction (Cambridge English, n.d.; Singh, 2020). This approach not only fosters technical competence but also enhances the intercultural communication skills necessary for professional success (Ambarini et al., 2020).

Despite policy support, questions remain regarding the extent of MTB-MLE implementation in Tech-Voc schools, particularly across specialized fields such as Beauty Care, Food Processing, Horticulture, Animal Production, and Computer Hardware Servicing. This study therefore investigates the degree of multilingual education integration in Region III Tech-Voc schools, examines its relationship with teacher profiles, and identifies gaps that may inform future curriculum and instructional improvements.

Statement of the Problem

This study sought to determine the extent of the implementation of multilingual education in the teaching of Technical Vocational Education (TECHVOC). Specifically, this study attempted to answer the following questions:

1. What is the profile of the teacher-respondents in terms of:
   1.1. age;
   1.2. sex;
   1.3. civil status;
   1.4. highest educational attainment;
   1.5. length of service?
2. What is the extent of the implementation of multilingual education in Technical Vocational (TECHVOC) schools along the following areas of specialization:
   2.1. Beauty Care;
   2.2. Food Processing;
   2.3. Horticulture;
   2.4. Animal Production; and
   2.5. Personal Computer Hardware Servicing?
3. Are there significant differences in the extent of implementation of multilingual education in Technical Vocational Education when teachers are grouped according to their profile variables?
4. Are there significant relationships between the extent of implementation of multilingual education in Technical Vocational Education and the profile variables of the teacher-respondents?

Research Hypotheses

1. This study tested the following hypotheses at the 0.05 level of significance:
   There is no significant difference in the extent of implementation of multilingual education in Technical Vocational Education when teachers are grouped according to their profile variables.
2. There is no significant relationship between the extent of implementation of multilingual education in Technical Vocational Education and the profile variables of the teacher-respondents.

THEORETICAL FRAMEWORK

Mother tongue- based multi-lingual Education, herein after referred to as MLE, is the effective use of more than two languages for literacy and instruction. Henceforth, it shall be institutionalized as a fundamental institution policy and program in tis Department in the whole stretch of formal education including pre-school and Alternative Learning System (ALS).

Effective instructional approaches in dual language learning. To those involve in second language learning, curricular themes arising in dual language instruction will sound familiar, and these are namely balanced literacy; cooperative instruction; student- centered learning, thematic units content-based instruction and integration (Freeman, Freeman and Mercui, 2005, Howard and Sugarman,2007)

Paradigm of the Study

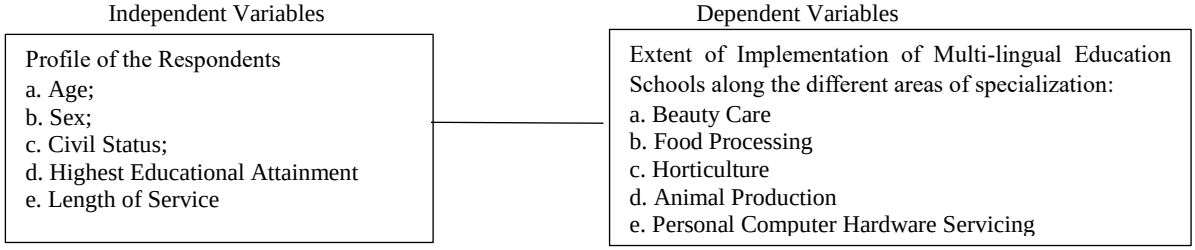


Figure 1. Schematic diagram showing the relationship between the independent and dependent variables.

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Limitations of the Study

Despite its contributions, this study has several limitations. First, the study was limited to 40 teacher-respondents, which may affect the generalizability of the findings. Second, the data were based solely on self-reported responses, which may be influenced by personal bias or social desirability. Third, the study focused only on teachers' perceptions and did not include student performance data or classroom observations. Future studies may include a larger sample size, incorporate qualitative methods such as interviews or observations, and examine the impact of multilingual education on students' learning outcomes to provide a more comprehensive understanding.

LITERATURE REVIEW

This chapter presents relevant literature, theories, and studies that provide the conceptual and empirical foundation of the study. It reviews existing research on Mother Tongue-Based Multilingual Education (MTB-MLE), its policy framework in the Philippines, and its relevance to Technical-Vocational Education (TVE). The chapter also synthesizes the reviewed literature and studies to identify research gaps addressed by the present investigation.

Mother Tongue-Based Multilingual Education (MTB-MLE)

Mother Tongue-Based Multilingual Education (MTB-MLE) refers to the use of learners' first language as the primary medium of instruction, particularly in the early stages of education, while gradually introducing additional languages such as Filipino and English. According to UNESCO (2003), instruction in the mother tongue improves comprehension and facilitates conceptual understanding, particularly among learners who are unfamiliar with the dominant language of schooling. Cummins' (2000) Common Underlying Proficiency Theory explains that cognitive and academic skills developed in the first language can transfer to additional languages. This theory supports the use of MTB-MLE as a foundation for effective learning across subject areas, including skills-based instruction. Similarly, Vygotsky's (1978) socio-cultural theory emphasizes language as a mediating tool for learning, interaction, and social meaning-making. Bruner (1962) highlighted that curriculum design should be guided by the question of whether the knowledge being taught is worth knowing and mastering. This principle underscores the importance of relevance and meaningful instruction, especially for learners from low socioeconomic backgrounds who benefit from education that connects learning to real-life applications.

MTB-MLE in the Philippine Education System

The Philippines initially adopted the Bilingual Education Policy in 1974, mandating the use of Filipino and English as media of instruction (Gonzalez, 2003). However, studies revealed that this policy posed challenges to learners whose home language differed from both Filipino and English. In response, the Department of Education institutionalized MTB-MLE through DepEd Order No. 74, series of 2009, mandating the use of the mother tongue from preschool to Grade 3. Further support was provided by DepEd Order No. 60, series of 2008, which recognized the mother tongue as an effective bridge language in learning additional languages. The Enhanced Basic Education Act of 2013 (Republic Act No. 10533) formally integrated MTB-MLE into the K–12 curriculum, emphasizing contextualized learning and workforce readiness.

Multilingual Education and Technical-Vocational Education

Technical-Vocational Education focuses on the development of practical skills, procedural accuracy, and employability competencies. TESDA (2015) emphasized that effective TVE instruction requires clear communication, comprehension of technical procedures, and learner engagement. When instruction is delivered in a familiar language, learners demonstrate better understanding of tools, processes, and safety standards. Instructional strategies commonly used in multilingual classrooms—such as student-centered learning, cooperative instruction, and content-based learning—are particularly suitable in TVE environments (Freeman & Mercuri, 2005; Howard & Sugarman, 2007). The use of the mother tongue enhances participation, confidence, and skill mastery.

Foreign Studies

International studies have consistently demonstrated the effectiveness of multilingual education in improving learning outcomes. UNESCO (2002) reported that learners educated in their mother tongue exhibit higher participation rates, stronger comprehension, and reduced dropout rates. Benson (2013) found that mother-tongue instruction is particularly beneficial in skills-based and vocational learning where conceptual clarity is essential. Hornberger (1990) described multilingual education as a form of biliteracy, wherein communication and learning take place in two or more languages. This approach supports learners' cognitive flexibility and ability to transfer learning across contexts. Similarly, Cummins (2000) noted that strong first-language foundations enhance second-language proficiency and overall academic achievement.

These foreign studies provide evidence that multilingual instruction supports effective learning across diverse educational settings, including vocational and skills-based education.

Local Studies

Locally, Ramos (2012) emphasized that learners today require education that prepares them for employment, entrepreneurship, or further studies. To address labor market demands, the Department of Education and TESDA developed a Competency-Based Curriculum implemented in technical-vocational schools nationwide. This curriculum focuses on hands-on learning and skills mastery. DepEd and TESDA pilot-tested competency-based technical-vocational programs in various public secondary schools, highlighting the need for contextualized instruction and language accessibility. DepEd Order No. 60, series of 2008, and DepEd Order No. 74, series of 2009, reinforced the role of the mother tongue in improving comprehension and bridging learning to Filipino and English. These local studies and policies indicate strong institutional support for both competency-based technical education and multilingual instruction. However, they provide limited discussion on how MTB-MLE is implemented specifically within technical-vocational classrooms.

MATERIALS AND METHODS

This section describes in detail the research design, sources of data, participants, sampling technique, data-gathering procedures, and methods of data analysis employed in the study. The purpose of this chapter is to present a clear and transparent account of how the research was conducted to allow replication and validation of the findings.

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Research Design

The study employed a descriptive survey research design to determine the implementation of multilingual education in technical-vocational education schools. This design was deemed appropriate because the study aimed to describe existing conditions, instructional practices, and challenges related to multilingual instruction without manipulating any variables.

Sources of Data

The primary source of data for this study was the responses of technical-vocational teachers obtained through a structured questionnaire. Secondary data were gathered from existing documents such as Department of Education (DepEd) policy issuances, TESDA guidelines, and relevant educational records to support the interpretation of the findings.

Research Respondents and Sampling Technique

The respondents of the study consisted of technical-vocational education teachers teaching in selected public secondary schools offering TVE programs. A purposive sampling technique was used in selecting the respondents to ensure that only teachers directly involved in the implementation of multilingual education in technical-vocational classes participated in the study. This sampling method ensured that the data collected were relevant to the objectives of the research.

Research Instrument

A researcher-made questionnaire served as the main data-gathering instrument. The questionnaire was structured into several parts: (1) profile of the respondents, (2) level of implementation of multilingual education in technical-vocational classes, (3) perceived benefits of multilingual instruction, and (4) challenges encountered in its implementation. The instrument utilized a Likert-type scale to measure the degree of agreement of the respondents.

Data-Gathering Procedure

Prior to the conduct of the study, permission was obtained from the school administrators concerned. After approval, the researcher personally distributed the questionnaires to the selected respondents. Proper instructions were explained to ensure accurate responses. The accomplished questionnaires were collected, checked for completeness, and prepared for data analysis. Confidentiality and anonymity were strictly observed throughout the process.

Data Analysis

The collected data were organized, tabulated, and analyzed using descriptive statistical methods. Frequency counts and percentages were used to describe the profile of the respondents, while weighted mean was employed to determine the level of implementation, perceived benefits, and challenges of multilingual education in technical-vocational education schools. The results were presented in tables and interpreted based on established statistical criteria.

RESULTS

Respondent's Profile

Shown in table 1 is the profile of the teacher- respondents with respect to age, sex, civil status, highest educational attainment and length of service.

Table 1: ***Distribution of the Frequency and Percentage of the Respondent's Profile Variables (n=40)***

Profile Variable	Categories	Frequency	Percentage
Age	24-29 years old	8	20.0
	30-35 years old	9	22.5
	36-41 years old	9	22.5
	42-47 years old	6	15.0
	48 years old & above	8	20.0
Sex	Male	15	37.5
	Female	25	62.5
Civil Status	Single	12	30.0
	Married	27	67.5
	Widow/er	1	2.5
Highest Educational Attainment	College Graduate	12	30.0
	with MA Units	26	65.0
	MA/MS Degree Holder	2	5.0
Length of Service	1-5 years	14	35.0
	6-10 years	12	30.0
	11-15 years	5	12.5
	16 years & above	9	22.5

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Table 2: ***Extent of Implementation of Multi-Lingual Education in Tech-Voc Schools along Beauty Care***

Indicators	WM	DE	TR
As a Tech-Voc teacher, I used multi-lingual Education in:			
1. Giving Instructions in performing pre and post beauty care services	4.71	A	HI
2. Discussing the sanitary and safety measures in the entire process of Facial treatment	4.57	A	HI
3. Demonstrating actual facial cleansing and treatment of the face clearly	4.14	O	I
4. Explaining lessons in foot spa	4.57	A	HI
5. Giving additional information to the lesson about massage	4.86	A	HI
6. Communicating information about personal and public hygiene	4.86	A	HI
7. Discussing the cosmetologist's code of ethical conduct	4.86	A	HI
8. Disseminating rules of hygienic living	4.86	A	HI
9. Selecting and applying appropriate make-up products and accessories In standard sequence/ procedure with salon products	4.86	A	HI
10. Defining/Contouring eyebrow according to facial shape or patron's Preference using appropriate tools	4.71	A	HI
11. Communicating information about personal and public hygiene	4.86	A	HI
12. Disseminating rules of hygienic living	4.86	A	HI
13. Discussing the qualities of well- groomed cosmetologist	4.86	A	HI
14. Performing correct visual poise	4.71	A	HI
15. Cultivating a pleasing personality	4.71	A	HI
16. Practicing and maintaining professional attitude towards client	4.86	A	HI
17. Discussing the cosmetologist's code of ethical conduct	5.00	A	HI
18. Identifying the qualities needed for pleasing personality	4.57	A	HI
19. Practicing correct sitting position	5.00	A	HI
20. Practicing correct standing position	5.00	A	HI
Overall Weighted Mean	**4.77**	**A**	**HI**

Legend: *WM-Weighted Mean; DE-Descriptive Equivalent; TR-Transmuted Rating; 4.50-5.00 (Always [A] /Highly Implemented [HI]); 3.50-4.49 (Often [O] /Implemented [I]); 2.50-3.49 (Sometimes [So] /Moderately Implemented [MI]); 1.50-2.49 (Seldom [Se]/Slightly Implemented [SI]); 1.00-1.49 (Never [N] /Not Implemented [NI])*

Table 3: ***Extent of Implementation of Multi-lingual Education in Tec-Voc Schools along Food Processing***

Indicators	WM	DE	TR
As a Tech-Voc teacher, I used multi-lingual Education in:			
1. Implementing food sanitation practices	4.40	O	I
2. Presenting different laboratory apparatus and demonstrate the correct ways of Using them	4.50	A	HI
3. Classification of fermented fish and other marine products	4.20	O	I
4. Describing the composition of meat, fish fruits and vegetables	4.20	O	I
5. Discussing procedure in wine making	4.20	O	I
6. Preparing salting and curing solution and mixture	4.30	O	I
7. Checking and sanitizing equipment in accordance with standard specification	4.40	O	I
8. Sorting and grading raw materials in accordance with specifications	4.10	O	I
9. Cleaning, scaling, eviscerating, deboning, filleting and washing of fish and other Marine products in accordance with approved specifications and standard procedure	4.10	O	I
10. Measuring and weighing required salt and other ingredients and adjuncts for Salting and curing in line with approved specifications and Occupational Health and Safety requirements	4.40	O	I
11. Discussing food preservations and processing	4.20	O	I
12. Identifying the nutrients needed by the body, their functions, and possible sources	3.80	O	I
13. Emphasizing the importance of a balance diet	3.90	O	I
14. Explaining the process of digestion, absorption and metabolism	4.10	O	I
15. Describing the composition of meat, fish, fruits and vegetables.	4.40	O	I
16. Analysing the different causes of spoilage	4.00	O	I
17.Identifying the causes of spoilage	4.50	A	HI
18. Explaining the factors affecting the quality of foods for preservation and Processing	4.30	O	I
19.Discussing the factors affecting the quality of foods preservation and processing	4.10	O	I

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20. Performing the different food preservation and techniques	4.70	A	HI
Overall Weighted Mean	**4.24**	**O**	**I**

Legend: *WM-Weighted Mean; DE-Descriptive Equivalent; TR-Transmuted Rating; 4.50-5.00 (Always [A] /Highly Implemented [HI]); 3.50-4.49 (Often [O] /Implemented [I]); 2.50-3.49 (Sometimes [So] /Moderately Implemented [MI]); 1.50-2.49 (Seldom [Se]/Slightly Implemented [SI]); 1.00-1.49 (Never [N] /Not Implemented [NI])*

Table 4: ***Extent of Implementation of Muti-lingual Education in Tech-Voc Schools along Horticulture***

Indicators	WM	DE	TR
As a Tech-Voc teacher, I used multi- lingual Education in:			
1. Determining areas of concern for safety measures	4.78	A	HI
2. Selecting the site for planting vegetable crops	5.00	A	HI
3. Performing care and management of seedlings	4.78	A	HI
4. Giving instructions in preparing the land for planting vegetable crops	5.00	A	HI
5. Demonstrating asexual plant propagation	4.67	A	HI
6. Preparing tools, materials, farm implements and simple equipment for horticultural Farm operation	5.00	A	HI
7. Determining areas of concern for safety measure in horticulture	5.00	A	HI
8. Controlling insect pest and diseases	5.00	A	HI
9. Managing newly- transplanted seedling	5.00	A	HI
10. Classifying the different horticultural crops	4.67	A	HI
11. Determining the basic fundamentals of horticulture	4.89	A	HI
12. Explaining agriculture and its branches	4.56	A	HI
13. Discussing the importance of horticulture	4.78	A	HI
14. Explaining the branches of horticulture	4.78	A	HI
15. Identifying the types of vegetable gardening	4.89	A	HI
Overall Weighted Mean	**4.85**	**A**	**HI**

Legend: *WM-Weighted Mean; DE-Descriptive Equivalent; TR-Transmuted Rating; 4.50-5.00 (Always [A] /Highly Implemented [HI]); 3.50-4.49 (Often [O] /Implemented [I]); 2.50-3.49 (Sometimes [So] /Moderately Implemented [MI]); 1.50-2.49 (Seldom [Se]/Slightly Implemented [SI]); 1.00-1.49 (Never [N] /Not Implemented [NI])*

Table 5: ***Extent of Implementation of Multi-lingual Education in Tech-Voc Schools along Animal Production***

Indicators	WM	DE	TR
As a Tech-Vo teacher, I used multi-lingual Education in:			
1. Identifying swine equipment, tools and materials	4.38	O	I
2. Discussing the selection of breeds of swine to raise	4.50	A	HI
3. Explaining the procedure of feed formulation	4.25	O	I
4. Classifying feed additives	4.88	A	HI
5. Formulating a balance ration for swine	4.38	O	I
6. Differentiating meat/ bacon and lard type of hogs	4.50	A	HI
7. Explaining the meaning of breeds and type	4.75	A	HI
8. Identifying essential nutrients that the animal needs for optimum health	4.75	A	HI
9. Discussing the reproductive phenomena of swine	4.75	A	HI
10. Discussing the reproductive phenomena of swine	4.75	A	HI
11. Determining the basic fundamentals of animal production	4.88	A	HI
12. Enumerating the importance and prospects of raising animals	4.88	A	HI
13. Selecting and securing the types of breeds of farm animals	4.75	A	HI
14. Identifying the types of housing and equipment for heard and flocks	4.88	A	HI
15. Discussing the selection of ideal site of a piggery projects	4.65	A	HI
Overall Weighted Mean	**4.65**	**A**	**HI**

Legend: *WM-Weighted Mean; DE-Descriptive Equivalent; TR-Transmuted Rating; 4.50-5.00 (Always [A] /Highly Implemented [HI]); 3.50-4.49 (Often [O] /Implemented [I]); 2.50-3.49 (Sometimes [So] /Moderately Implemented [MI]); 1.50-2.49 (Seldom [Se]/Slightly Implemented [SI]); 1.00-1.49 (Never [N] /Not Implemented [NI])*

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Table 6: ***Extent of Implementation of Multi-Lingual Education in Tech-Voc Schools along Personal Computer Hardware Servicing***

Indicators	WM	DE	TR
As a Tech-Voc teacher, I used Multi-lingual Education in:			
1. Identifying essential components of a computer system.	4.00	O	I
2. Differentiating hardware, software and people ware.	3.83	O	I
3. Inspecting and cleaning of computer system.	4.17	O	I
4. Characterizing of material's software and hardware used is specified	4.17	O	I
5. Applying safety requirements in handling tools.	4.33	O	I
6. Using semi-conductor devices and circuit.	4.00	O	I
7. Identifying and correcting the use of different troubleshooting techniques.	4.00	O	I
8. Maintaining computer system in accordance to task specification and requirements.	4.17	O	I
9. Diagnosing standard operational procedure (SOP) for the purpose of troubleshooting Is followed strictly.	3.83	O	I
10. Giving instructions in identifying computer system network.	3.33	So	MI
11. Exploring woodworking fundamentals.	4.00	O	I
12. Applying safety practices in the shop.	3.83	O	I
13. Performing electrical fundamentals	3.83	O	I
14. Performing basic bench work	4.00	O	I
15. Using appropriate hand tools and testing equipment.	3.96	O	I
Overall Weighted Mean	**4.00**	**O**	**I**

Legend: *WM-Weighted Mean; DE-Descriptive Equivalent; TR-Transmuted Rating; 4.50-5.00 (Always [A] /Highly Implemented [HI]); 3.50-4.49 (Often [O] /Implemented [I]); 2.50-3.49 (Sometimes [So] /Moderately Implemented [MI]); 1.50-2.49 (Seldom [Se]/Slightly Implemented [SI]); 1.00-1.49 (Never [N] /Not Implemented [NI])*

Table 7: ***Differences in the Extent of Implementation of Multi-lingual education in Tech-Voc Schools across their Profile Variables***

Profile Variable	Categories	N	Mean	F / t value	Sig.	Remarks
Age	24-29 years old	8	4.3875	F=.607	.660	Not Significant
	30-35 years old	9	4.4467			
	36-41 years old	9	4.5144			
	42-47 years old	6	4.8083			
	48 years old & above	8	4.4838			
Sex	Male	15	4.7140	t=2.112	.042	Not Significant
	Female	25	4.3904			
Civil Status	Single	12	4.2467	F=2.378	.107	Not Significant
	Married	27	4.6300			
	Widow/er	1	4.5000			
Highest Educational Attainment	College Graduate	12	4.4158	F=1.363	.296	Not Significant
	With MA Units	26	4.5927			
	MA/MS Degree holder	2	4.0350			
Years in Service	1-5 years	14	4.5850	F=1.154	.341	Not Significant
	6-10 years	12	4.2967			
	11-15 years	5	4.4900			
	16 years & above	9	4.6967			

Table 8: ***Relationship between the Extent of Implementation of Multi-lingual Education in Tech-Voc Schools and their Profile Variables***

Profile Variables	**Pearson Correlation & Sig.**	**Extent of Implementation**
Age	Pearson Correlation	.134
	Sig (2-tailed)	.408
	Remarks	Not Significant
Sex	Pearson Correlation	.303
	Sig. (2-tailed)	.058

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	Remarks	Not Significant
Civil Status	Pearson Correlation	.307
	Sig. (2 tailed)	.504
	Remarks	Not Significant
Highest Educational Attainment	Pearson Correlation	.018
	Sig (2 tailed)	.913
	Remarks	Not Significant
Length of Service	Pearson Correlation	.092
	Sig. (2-tailed)	.572
	Remarks	Not Significant

DISCUSSION

This section interprets the findings of the study on the extent of implementation of multilingual education in TECHVOC schools. The results are analyzed in relation to existing studies, educational practices, and the nature of technical-vocational instruction. Implications for teaching and school policy are discussed, and limitations of the study are acknowledged to provide a balanced perspective.

Interpretation of the Findings

The findings revealed that the teacher-respondents across TECHVOC schools demonstrated a generally high level of implementation of multilingual education, particularly in the areas of Beauty Care, Horticulture, and Animal Production. This indicates that teachers frequently use more than one language to deliver instruction, especially in skill-based and practical subjects where comprehension is essential. The high implementation observed in Horticulture (WM = 4.85) and Animal Production (WM = 4.65) suggests that multilingual instruction is especially effective in agriculture-related subjects. These areas often involve practical demonstrations, safety procedures, and step-by-step processes that require clear communication. Using learners' first language alongside English likely enhances understanding and reduces misinterpretation during hands-on activities.

In contrast, Personal Computer Hardware Servicing (WM = 4.00) and Food Processing (WM = 4.24) obtained lower but still favorable ratings, indicating that multilingual education is used often but not always. This may be attributed to the technical and rapidly evolving nature of these fields, where English terminology is heavily used and sometimes unavoidable. Nonetheless, the findings show that teachers still attempt to integrate local languages to clarify instructions, particularly in safety practices and operational procedures. The analysis of differences revealed no significant variation in implementation across age, civil status, educational attainment, and length of service, suggesting that multilingual education is practiced consistently regardless of teachers' demographic characteristics. However, a significant difference was observed when respondents were grouped according to sex, indicating possible variation in instructional approaches or communication styles between male and female teachers. Furthermore, the absence of significant relationships between profile variables and implementation implies that the use of multilingual education is not dependent on demographic factors but rather reflects institutional practices or curricular expectations within TECHVOC schools.

Comparison with Existing Studies

The findings of this study are consistent with the results of García and Wei (2014), who emphasized that multilingual practices enhance instructional clarity, particularly in skills-based and vocational education. Similarly, Cummins (2008) noted that the strategic use of learners' first language supports comprehension and skill acquisition, especially among students with limited proficiency in the language of instruction. The high implementation in agriculture-related subjects aligns with the study of Ramos (2012), which found that TECHVOC teachers tend to use localized language in farming and livelihood subjects to ensure safety and procedural accuracy. Moreover, Darling-Hammond (2017) supported the notion that experienced and professionally trained teachers are more likely to adopt inclusive instructional strategies such as multilingual education, regardless of age or years of service. The observed difference in implementation by sex is supported by Morales (2017), who reported that female teachers often demonstrate stronger communicative interaction and learner-centered strategies, which may influence their application of multilingual instruction

Implications of the Findings

The findings imply that multilingual education is an effective and widely accepted instructional strategy in TECHVOC schools, particularly in hands-on and livelihood-oriented subjects. School administrators and policymakers may consider strengthening support for multilingual teaching through professional development programs, instructional materials, and language-sensitive curricula. The lower ratings in ICT-related subjects suggest a need for targeted training on integrating multilingual strategies while maintaining technical accuracy. Teachers may benefit from workshops that focus on balancing English technical terms with explanatory support in learners' first language. Additionally, the consistent implementation across most profile variables highlights the potential for institutionalizing multilingual education as a standard teaching practice in TECHVOC programs.

Summary of Findings

This study was conducted to determine the extent of implementation of multilingual education in Technical Vocational (TECHVOC) schools in Region III. Specifically, it examined the profile of teacher-respondents, the extent of implementation of multilingual education across selected TECHVOC areas, and the differences and relationships between the extent of implementation and selected profile variables.

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Based on the analysis of data, the following findings were established:

1. In terms of the profile of the teacher-respondents, the majority were females, married, and belonged to the 30–35 age bracket. Most respondents had earned graduate units (MA units), while a large proportion had relatively shorter teaching experience, specifically 1–5 years in service in TECHVOC schools.
2. The extent of implementation of multilingual education varied across areas of specialization. Beauty Care, Horticulture, and Animal Production were rated as Highly Implemented, while Food Processing and Personal Computer Hardware Servicing were rated as Implemented. This indicates that multilingual education is consistently practiced across TECHVOC areas, though with varying intensity depending on specialization.
3. The results showed no significant relationship between the extent of implementation of multilingual education and the profile variables of the teacher-respondents. This suggests that the implementation of multilingual education is not influenced by age, sex, civil status, educational attainment, or length of service.

CONCLUSIONS

Considering the findings of the study, the following conclusions were drawn:

1. Teachers in TECHVOC schools in Region III are generally young to middle-aged, female-dominated, married, and professionally motivated, as evidenced by their pursuit of graduate studies. Despite their relatively short length of service, they remain actively engaged in instructional practices aligned with TECHVOC curriculum requirements.
2. Multilingual education is an established and regularly practiced instructional approach in TECHVOC schools. Teachers consistently employ multilingual strategies in delivering lessons across various technical-vocational areas, particularly in skill-based and practical subjects such as Beauty Care, Horticulture, and Animal Production.
3. The extent of implementation of multilingual education does not significantly differ across the teachers' profile variables, indicating that its application is a shared instructional practice rather than one influenced by personal or demographic characteristics.

Implications and Future Directions

The findings imply that multilingual education plays a vital role in enhancing instruction in TECHVOC schools, particularly in facilitating understanding of technical concepts, safety procedures, and practical skills. School administrators and policymakers may strengthen institutional support for multilingual instruction through continuous professional development, provision of localized instructional materials, and integration of multilingual strategies into TECHVOC classroom standards. For future research, it is recommended that studies include a larger sample size, incorporate student performance outcomes, and utilize qualitative methods such as classroom observations and interviews to further validate the effectiveness of multilingual education. Future studies may also examine the long-term impact of multilingual instruction on learners' employability and technical competence.

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