

Competency Assessment of TLE Teachers in Selected Public Schools in the Division of Dasmariñas City, Cavite

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Abstract

Technology and Livelihood Education (TLE) teachers play a critical role in developing learners' workforce-ready competencies through quality technical and vocational instruction. This study assessed the competency of TLE teachers in the Division of Dasmariñas City, Cavite, as a basis for strengthening professional development and improving instructional quality. The study was anchored on McClelland's Competency Theory and utilized the Input–Process–Output (IPO) framework to examine teacher competency in the domains of Content Skills, Practical Skills, Instructional Skills, and Technical Proficiency. A descriptive research design was employed involving public secondary school TLE teachers from selected very large public secondary schools in Dasmariñas City. Data were gathered using a validated and reliable researcher-made questionnaire and analyzed through frequency, percentage, mean, and Chi-square (χ^2) Test of Independence. The findings revealed that TLE teachers were Highly Competent across all competency domains. However, relatively lower ratings were observed in technology integration, updated industry practices, and continuous participation in professional development activities. Most demographic variables, including age, sex, specialization, National Certificate (NC) program attainment, years of teaching experience, and number of trainings attended, showed no significant relationship with overall competency. In contrast, teaching position demonstrated a significant relationship with practical, instructional, technical proficiency, and overall competency, while training participation significantly influenced instructional skills. The study concluded that TLE teachers possess strong professional competencies but require sustained professional development to enhance emerging technical and instructional competencies. It recommends continuous competency enhancement through regular trainings, technology-upskilling, industry immersion, mentorship, and career development initiatives. The study supports Sustainable Development Goals (SDGs) 4 (Quality Education), 8 (Decent Work and Economic Growth), and 9 (Industry, Innovation and Infrastructure) by promoting teacher competency, workforce readiness, and industry-aligned instruction. Its sustainability contribution lies in providing evidence to support competency-based professional development, curriculum enhancement, instructional quality, and continuous institutional improvement in Technology and Livelihood Education.

Keywords: Content Skills, Instructional Skills, Practical Skills, Professional Development, Teacher Competency, Technical Proficiency, Technology and Livelihood Education (TLE)

1. Introduction

Technology and Livelihood Education (TLE) plays a vital role in equipping learners with workforce-ready competencies that respond to rapidly changing industry demands. As technological innovations continue to transform workplaces, TLE teachers are expected to possess strong content knowledge, practical expertise, instructional competence, and technical proficiency to deliver relevant and quality instruction. However, limitations in continuous professional development, outdated instructional resources, inadequate facilities, and the rapid pace of technological change continue to challenge teachers' competency development. These concerns underscore the need to evaluate teacher competencies and strengthen professional development initiatives that align educational practices with industry standards. The study therefore focuses on assessing the competency of TLE teachers in the Division of Dasmariñas City, Cavite, as a basis for improving professional development and instructional quality.

1.1 Background of the Competency of Technology and Livelihood Education (TLE) Teachers in the Division of Dasmariñas City

The growing demand for a skilled and competitive workforce has increased the importance of competent TLE teachers who can effectively deliver practical and industry-aligned education. Continuous professional development is essential in helping educators adapt to technological advancements and evolving workplace expectations. However, many teachers continue to experience limited training opportunities, insufficient instructional resources, outdated equipment, and inadequate learning facilities, creating a gap between classroom instruction and current labor market needs. To address these concerns, the Department of Education has implemented policies promoting regular teacher training, competency enhancement, and the integration of industry-relevant skills into TLE instruction (DepEd, 2020). Schools that invest in

comprehensive professional development have demonstrated improvements in instructional effectiveness and learner performance. Despite these initiatives, barriers such as limited access to updated instructional materials, rapidly changing technologies, and diverse learner needs continue to affect teacher competency. These conditions emphasize the need to assess TLE teachers' competencies beyond content knowledge by examining their instructional skills, practical skills, adaptability, and technical proficiency to support continuous professional growth. The study is anchored on McClelland's Competency Theory (1993), which explains that effective job performance is determined by observable competencies rather than academic qualifications alone. Consistent with this theory, teacher competency is viewed through four interrelated domains: Content Skills, Practical Skills, Instructional Skills, and Technical Proficiency, which collectively reflect teachers' capability to meet educational standards and industry expectations in Technology and Livelihood Education.

1.2 Themes and Insights on TLE Teachers' Content Skills, Practical Skills, Instructional Skills, and Technical Proficiency

The reviewed literature consistently identifies teacher competency as a multidimensional construct encompassing content knowledge, practical expertise, instructional effectiveness, and technical proficiency. Studies emphasize that continuous professional development enhances teachers' mastery of subject content, improves instructional strategies, and positively influences learner engagement and academic achievement (Williams, 2020; Brown, 2018; Frigo, 2020; Garcia, 2018; Nueva, 2020). Curriculum alignment with standards-based frameworks and interdisciplinary instructional approaches further strengthens meaningful learning experiences and prepares learners for future academic and professional success (Thomas, 2020; Campbell, 2020). Research on practical skills highlights the importance of project-based learning, inquiry-based instruction, inclusive educational practices, and technology integration in developing learners' critical thinking, collaboration, and problem-solving abilities (Johnson, 2019; Taylor, 2022; Davis, 2022; Wilson, 2023; Jedia, 2022; Villania, 2023). These pedagogical approaches encourage active learning while enabling teachers to respond effectively to diverse learner needs. Instructional competence is likewise associated with effective pedagogical practices, differentiated instruction, formative assessment, educational leadership, and continuous professional learning. These practices improve instructional delivery, classroom management, learner assessment, and inclusive education while supporting positive learner outcomes (Jones, 2020; Anderson, 2019; Martin, 2019; Mitchell, 2017; Lopez, 2019; Baguinda, 2021). The literature further underscores the growing significance of technical proficiency, particularly in technology integration, assessment literacy, learner-centered evaluation, and co-curricular engagement. Effective utilization of educational technologies, standards-based assessment, learner self-assessment, and data-driven instruction contributes to improved teaching effectiveness (Wilson, 2023; Morrison, 2018; Abad, 2018; Agbayani, 2020; Chavez, 2020; Juarez, 2022). Studies focusing specifically on TLE teachers consistently report variations in competency levels across pedagogical and technical domains. While many educators demonstrate strong instructional competence, gaps remain in technology integration and advanced technical skills required for contemporary TLE instruction. Continuous professional development, targeted competency enhancement, and sustained institutional support are therefore recommended to strengthen teacher performance and improve learner outcomes (Baylen, 2022; Veridiano, 2019; Cruz, 2019; Tuscano, 2019; Crevillo, 2020).

1.3 Global, National, and Local Context of TLE Teacher Competency in the Division of Dasmariñas City

Globally, teacher competency has become a priority as educational systems respond to technological advancement, changing workforce demands, and the need to prepare learners with relevant knowledge and practical skills. International studies emphasize that continuous professional development, innovative pedagogy, curriculum alignment, and competency assessment strengthen teacher effectiveness (Williams, 2020; Brown, 2018; Thomas, 2020; Campbell, 2020; Johnson, 2019; Taylor, 2022; Wilson, 2023; Eleonor, 2020; Akeesha, 2018). These findings demonstrate that strengthening teacher competency is essential for maintaining quality education and producing graduates who are prepared for evolving labor market requirements. At the national level, the Philippine K–12 curriculum recognizes Technology and Livelihood Education as a key component in developing employable skills and promoting workforce readiness. The Department of Education reinforces this goal through policies that encourage continuous professional development, competency enhancement, and alignment of TLE instruction with industry standards (DepEd, 2020). Despite these initiatives, many TLE teachers continue to experience limited training opportunities, inadequate instructional resources, outdated facilities, and challenges in adapting to rapid technological change, which affect instructional quality and learner preparedness. Locally, these concerns are reflected in public secondary schools within the Division of Dasmariñas City, Cavite, where the study focuses on assessing teachers' competency in Content Skills, Practical Skills, Instructional Skills, and Technical Proficiency. The study involves TLE teachers and Master Teachers from selected very large public secondary schools to determine competency levels and identify areas requiring professional development. The findings are intended to support interventions that strengthen instructional quality and improve learner outcomes.

1.4 Theoretical and Conceptual Basis of TLE Teacher Competency Assessment

This study is anchored on McClelland's Competency Theory (1993), which explains that effective job performance depends on observable competencies rather than academic credentials alone. The theory views competency as the underlying characteristics that enable individuals to perform effectively, making it an appropriate framework for assessing teacher

capability in Technology and Livelihood Education. Within the context of this study, teacher competency is operationalized through four interrelated domains: Content Skills, Practical Skills, Instructional Skills, and Technical Proficiency, which collectively represent the competencies required for effective TLE instruction. Content Skills refer to teachers' mastery of theoretical knowledge necessary for delivering competencies in home economics, industrial arts, information and communication technology, and agriculture aligned with the K–12 curriculum. Practical Skills emphasize the application of knowledge through safe demonstrations, adherence to TESDA-referenced procedures, and accurate performance of vocational tasks. Instructional Skills encompass lesson delivery, classroom management, learner assessment, instructional adaptation, and learner-centered teaching strategies. Technical Proficiency involves the effective use of modern technologies, equipment, tools, and industry practices that reflect current workplace standards. Together, these competency domains provide measurable indicators of teacher effectiveness consistent with McClelland's emphasis on observable performance. The study also adopts an Input–Process–Output (IPO) conceptual framework. The inputs consist of the demographic profile of teacher respondents (age, sex, teaching position, specialization, NC program, years of teaching, and number of trainings), learner demographic profile, and the four competency domains of TLE teachers. Learner assessments serve to validate or triangulate teachers' self-assessments rather than as a separate comparison group. The process involves data collection using a researcher-made survey questionnaire and statistical analysis. The output is the development of a professional development program for TLE teachers and the identification of significant relationships between teacher competency and profile variables.

1.5 Research Gaps and Rationale for Assessing the Competency of TLE Teachers in the Division of Dasmariñas City

Existing literature consistently emphasizes the importance of teacher competency, continuous professional development, curriculum alignment, technology integration, and effective instructional practices in improving educational quality (Williams, 2020; Brown, 2018; Thomas, 2020; Johnson, 2019; Jones, 2020; Wilson, 2023). Likewise, studies on TLE teachers report that professional development enhances pedagogical competence and learner outcomes, yet technical competency and technology integration remain areas requiring further improvement (Baylen, 2022; Veridiano, 2019; Cruz, 2019; Tuscano, 2019; Crevillo, 2020; Shina, 2021; Javier, 2022). Despite existing policies and training initiatives, there remains insufficient evidence regarding the extent to which these programs effectively equip TLE teachers with the competencies required to consistently meet industry-aligned standards in actual classroom practice. Moreover, limited access to updated instructional materials, inadequate facilities, and rapidly evolving technologies continue to challenge teachers' professional growth. These gaps justify the need to assess the competency of TLE teachers in the Division of Dasmariñas City, Cavite, specifically in terms of Content Skills, Practical Skills, Instructional Skills, and Technical Proficiency. By identifying competency levels and determining differences according to teachers' demographic profiles, the study provides an empirical basis for designing targeted professional development programs that strengthen teacher effectiveness and improve instructional quality.

1.6 Alignment of the Competency Assessment of TLE Teachers with Relevant Sustainable Development Goals (SDGs)

The study aligns with SDG 4 – Quality Education by focusing on strengthening teacher competency through professional development, competency assessment, and improved instructional practices. Assessing teachers' content knowledge, practical skills, instructional competence, and technical proficiency supports the delivery of quality, inclusive, and industry-relevant education that enhances learner achievement and workforce readiness. The study also supports SDG 8 – Decent Work and Economic Growth because Technology and Livelihood Education aims to develop learners' employability and practical workplace competencies. Improving teacher competency contributes to preparing graduates with the knowledge and technical skills required to meet evolving labor market demands and industry expectations. In addition, the emphasis on technology integration, technical proficiency, and alignment of instruction with current industry practices reflects the objectives of SDG 9 – Industry, Innovation and Infrastructure, particularly in promoting innovation and strengthening human capital through competency-based education.

1.7 Importance of the Competency Assessment of TLE Teachers to Multidisciplinary Sustainability

The study contributes primarily to educational sustainability by providing evidence that can support competency-based professional development, curriculum enhancement, and continuous improvement in TLE instruction. The findings may guide the Department of Education, school administrators, and teachers in developing interventions that strengthen instructional quality and teacher effectiveness. It also contributes to socio-economic sustainability by supporting the preparation of learners with relevant technical and vocational competencies needed for employment and lifelong learning. Strengthening TLE teacher competency improves learners' readiness for academic progression and future career opportunities, thereby supporting workforce development. The study further supports technological sustainability by emphasizing teachers' technical proficiency, continuous professional development, and the integration of industry-relevant technologies into instruction. These competencies enable educators to respond effectively to technological advancements and changing workplace requirements while maintaining the relevance of Technology and Livelihood Education. Finally, the study contributes to institutional sustainability by providing empirical evidence that can inform policy formulation,

teacher training programs, instructional planning, and future research. The proposed professional development program serves as a practical mechanism for strengthening teacher competency and sustaining quality TLE instruction within public secondary schools.

2. Material and methods

2.1 Research Design

The study employed a descriptive research design to determine the competency of TLE teachers based on their self-assessment. This design was appropriate because it described existing conditions, behaviors, and competency levels without manipulating variables. It examined teacher competency across four domains: Content Skills, Practical Skills, Instructional Skills, and Technical Proficiency, providing a factual basis for identifying strengths and areas for improvement. The study also examined the significant difference between teacher competencies and demographic variables, including age, sex, teaching position, specialization, NC attainment, years of service, and number of trainings, using Chi-square analysis to identify groups requiring targeted interventions.

2.2 Locale of the Study

The study was conducted in eight selected public secondary schools in Dasmariñas City, Cavite during Academic Year 2024–2025. The participating schools were Paliparan National High School, Paliparan II Integrated High School, Francisco E. Barzaga Integrated High School, Emmanuel Resurreccion Congressional Integrated High School, Dasmariñas Integrated High School, Dasmariñas East Integrated High School, Dasmariñas North National High School, and Dasmariñas West National High School.

2.3 Respondents of the Study

The respondents were public school TLE teachers from the selected very large public secondary schools in Dasmariñas City, Cavite. Although the methodology initially mentioned TLE coordinators and learners, the study primarily focused on TLE teachers in assessing their competencies.

2.4 Sample and Sampling Procedure

The target population consisted of 197 TLE teachers from the selected public secondary schools. Cochran's Formula was used to determine the required sample size. Based on the computation, 189 teacher respondents were included. The study employed a two-stage sampling procedure combining stratified random sampling and proportional allocation. Schools served as the strata, and respondents were proportionally selected from each school to ensure adequate representation. According to Holland (2020), stratified random sampling allows participants to be randomly selected from each subgroup, reducing sampling bias and improving representativeness. Due to respondent availability, only 60.85% of the intended sample participated in the study.

2.5 Research Instrument

The study utilized a researcher-made questionnaire consisting of two parts. The first part gathered the respondents' demographic profile, including optional name, age, sex, teaching position, specialization, NC Program, years of teaching, and number of trainings. The second part measured teacher competency in four domains: Content Skills, Practical Skills, Instructional Skills, and Technical Proficiency. Each domain contained ten indicators rated using a five-point Likert scale ranging from 1 (Not Competent) to 5 (Highly Competent). The questionnaire was developed through an extensive review of related literature, policies, and studies on teacher competency and competency assessment (Gripal, 2020; Morales, 2020). It underwent content validation by experts, including professors, one English Master Teacher, one TLE Master Teacher, and one PSDS-TLE Major, whose recommendations were incorporated into the revised instrument. The questionnaire was subsequently pilot-tested among teachers and learners who were not included in the study. The results led to further refinement before final approval. To establish validity, the instrument achieved a high Content Validity Index (CVI), indicating that the items were relevant and aligned with the competency domains. Reliability testing using Cronbach's Alpha produced coefficients ranging from 0.89 to 0.94 across the four competency domains, indicating excellent internal consistency and confirming that the instrument was both valid and reliable for assessing TLE teacher competency.

2.6 Data Gathering Procedure

The researcher first secured permission from the Schools Division Superintendent of Cavite and the principals of the participating schools before administering the survey. After obtaining the necessary approvals, the researcher personally distributed the researcher-made questionnaires together with informed consent forms and provided instructions for their completion. The Time-on-Task policy was observed to avoid disrupting official working hours. Upon retrieval, the responses were organized, tabulated, analyzed using appropriate statistical tools, and summarized to formulate the study's findings, conclusions, and recommendations.

2.7 Data Analysis Techniques

Frequency and Percentage Distribution were used to describe the respondents according to age, sex, teaching position, and years of teaching in answering the first research problem. Mean was employed to determine the competency levels of TLE teachers, compute the overall competency scores, and address the second research problem. Chi-square (χ^2) Test of Independence was used to determine the significant relationship between the demographic profile of the teacher respondents and their competency and to test the hypothesis for the third research problem.

2.8 Ethical Considerations

Ethical standards were observed throughout the conduct of the study. Participation was voluntary, and respondents provided informed consent before completing the questionnaire. The researcher ensured anonymity and maintained the confidentiality of all information gathered, protecting respondents' privacy by preventing the disclosure of personal information.

3. Results and Discussion

3.1 Demographic Profile of the Teacher Respondents

3.1.1 Age

The findings revealed that most of the respondents were 31–40 years old (36.5%), followed by those aged 41 years and above (27.8%). Teachers aged 20–25 years comprised 18.3%, while those aged 26–30 years represented the smallest group at 17.4%. Overall, the respondents were predominantly within the middle-age bracket. The results indicate that the TLE teaching workforce consists largely of mature teachers who are likely to possess substantial professional experience. This demographic profile suggests that the respondents have accumulated sufficient teaching exposure that may contribute to instructional effectiveness and competency.

3.1.2 Sex

The majority of the respondents were female (76.5%), while male teachers accounted for only 23.5% of the total respondents. This indicates that female teachers comprised most of the TLE teaching workforce in the participating schools. The findings demonstrate the predominance of female teachers in TLE, reflecting the gender composition of the participating schools. Despite this distribution, both male and female teachers formed part of the study population and contributed to the assessment of teacher competency.

3.1.3 Teaching Position

The largest proportion of respondents held the position of Teacher I (41.7%), followed by Teacher II (29.6%), Teacher III (16.5%), and Master Teacher I (12.2%). These findings indicate that most respondents occupied entry-level teaching positions. The results suggest that the participating schools have a greater number of classroom teachers than master teachers. This distribution reflects the organizational structure of the teaching workforce, where Teacher I positions constitute the majority of instructional personnel.

3.1.4 Specialization

The findings showed that Information and Communication Technology (29.6%) was the most common specialization among the respondents, followed closely by Home Economics (28.7%) and Industrial Arts (27.0%). Agricultural Arts had the fewest respondents, representing 14.8% of the total sample. The distribution indicates that teachers represented all major TLE specializations, with ICT having the highest representation and Agricultural Arts the least. This reflects a relatively balanced distribution of teacher specialization across the selected public schools.

3.1.5 NC Program

Most respondents were associated with the Agricultural Arts NC Program (32.2%), followed by Home Economics (31.3%) and Industrial Arts (26.1%). Entrepreneurship accounted for 9.6%, while Information and Communication Technology had the smallest representation at 0.9%. The findings indicate that Agricultural Arts and Home Economics were the dominant NC programs among the respondents. In contrast, the ICT NC Program had very limited participation, suggesting differences in the distribution of National Certificate qualifications among TLE teachers.

3.1.6 Years of Teaching

The largest group of respondents had 11 years or more of teaching experience (34.8%). This was followed by teachers with 4–6 years (24.3%), 7–10 years (23.5%), and 0–3 years (17.4%). Overall, experienced teachers comprised the majority of the respondents. The results indicate that the study involved a well-established teaching workforce with substantial professional experience. The presence of teachers across different experience levels also provided a broad representation of TLE educators in the selected schools.

3.1.7 Number of Trainings Attended

The findings revealed that most respondents had attended 0–3 trainings (38.3%), followed by 4–6 trainings (27.0%), 11 trainings and above (20.9%), and 7–10 trainings (13.9%). These results show varying levels of participation in professional development activities. The findings suggest that although many teachers had limited training exposure, a considerable proportion had participated in multiple professional development programs. This reflects differences in teachers' opportunities for professional growth while indicating continued engagement in competency development.

3.2 Competency of TLE Teachers

3.2.1 Content Skills

The results showed that TLE teachers were Highly Competent in Content Skills, with an overall mean of 4.52. The highest-rated competencies involved conducting hands-on training and workshop activities, proficiency in using specialized tools and equipment, and accurately demonstrating practical tasks aligned with industry standards. The lowest-rated indicator, although still interpreted as Highly Competent, was continuous participation in relevant trainings and seminars, followed by competencies related to troubleshooting equipment and assessing students using TESDA or similar certification standards. The findings indicate that TLE teachers possess strong mastery of technical content and practical demonstrations essential for effective instruction. However, the relatively lower rating on participation in professional development suggests the need to strengthen continuous learning opportunities. These results support the observations of Geneka (2020), who emphasized that teachers' mastery of technical content and hands-on instruction is vital in developing learners' practical competencies while recognizing the importance of sustained professional development.

3.2.2 Practical Skills

The results revealed that TLE teachers were Highly Competent in Practical Skills, with an overall mean of 4.56. The highest ratings were obtained in guiding students during practical activities and consistently applying safety protocols in workshops and laboratories. High ratings were also observed in performing technical tasks accurately, demonstrating practical procedures, and assessing students' practical outputs. The lowest-rated indicator, although still Highly Competent, involved the use of vocational tools, machines, and equipment during instruction. These findings demonstrate that TLE teachers are confident in facilitating practical learning experiences while ensuring safe and accurate performance of technical activities. The comparatively lower rating on equipment use suggests opportunities to further improve teachers' access to or proficiency with updated vocational tools. The results are consistent with Mutniani (2021), who emphasized that effective TLE instruction depends on teachers' ability to demonstrate practical tasks, model correct procedures, and enforce safety standards.

3.2.3 Instructional Skills

The findings showed that TLE teachers were Highly Competent in Instructional Skills, obtaining an overall mean of 4.60. The highest-rated competency was the consistent application of safety protocols during laboratory and workshop activities. Teachers also rated highly in creating positive learning environments, providing timely and constructive feedback, conducting assessments, and simplifying complex technical concepts. The lowest ratings, while still interpreted as Highly Competent, were observed in using diverse teaching strategies and designing lesson plans integrating theory and practical applications. The results suggest that TLE teachers demonstrate strong instructional competence by maintaining safe, engaging, and supportive learning environments while effectively monitoring student progress. Nevertheless, enhancing instructional differentiation and lesson planning may further strengthen teaching effectiveness. These findings agree with Serrano (2020), who emphasized that effective TLE instruction is characterized by clear demonstrations, safety-conscious teaching, varied assessment practices, and the integration of theoretical and practical learning experiences.

3.2.4 Technical Proficiency

The results indicated that TLE teachers were Highly Competent in Technical Proficiency, with an overall mean of 4.54. Teachers obtained the highest ratings in using specialized software and vocational tools, demonstrating technical processes, and applying technical concepts in practical settings. High ratings were likewise observed in performing technical tasks accurately and maintaining technical equipment. The lowest-rated indicators, although still Highly Competent, involved mastery of the latest industry practices and the implementation of advanced technologies relevant to instruction. The findings indicate that TLE teachers possess strong technical capabilities necessary for vocational instruction. However, the comparatively lower ratings on emerging technologies and updated industry practices highlight opportunities for continuous technical upgrading. These findings are consistent with Vergara (2020), which emphasized that technical proficiency, equipment handling, and accurate demonstration of technical processes are fundamental to effective TLE instruction.

3.3 Significant Difference Between the Competency of TLE Teachers and Their Demographic Profile

3.3.1 Age

The results showed no significant difference between age and the competency of TLE teachers in Content Skills, Practical Skills, Instructional Skills, Technical Proficiency Skills, and overall competency, as all obtained p-values were greater than

0.05. Although slight variations in mean scores were observed across age groups, these differences were not statistically significant. The findings indicate that teachers demonstrated comparable competency regardless of age, suggesting that age does not determine proficiency in TLE instruction. These results are consistent with Cabigting (2018), who emphasized that although age may influence certain aspects of instructional delivery and classroom management, it does not significantly affect overall teaching competency.

3.3.2 Sex

The findings revealed no significant difference between teachers' sex and their competency in all four competency domains and in the overall competency, as all p-values exceeded the 0.05 level of significance. Both male and female teachers demonstrated comparable levels of competency. These results suggest that teacher competency is independent of gender, with both male and female TLE teachers exhibiting similar levels of content knowledge, practical skills, instructional skills, and technical proficiency. The findings support Anaryo (2020), who likewise reported that teachers' sex does not significantly influence overall competency.

3.3.3 Teaching Position

The results indicated no significant difference between teaching position and Content Skills. However, significant differences were found in Practical Skills, Instructional Skills, Technical Proficiency Skills, and overall competency, with p-values below 0.05. Teachers occupying higher positions generally obtained higher competency ratings than Teacher I respondents. The findings suggest that professional rank is associated with higher competency in several teaching domains, particularly practical, instructional, and technical skills, while content knowledge remains comparable across positions. These findings are discussed in relation to Campbell (2020), which noted that teaching position does not significantly influence teacher competency.

3.3.4 Specialization

The results showed no significant difference between teachers' specialization and their competency in Content Skills, Practical Skills, Instructional Skills, Technical Proficiency Skills, and overall competency. All computed p-values were greater than 0.05, indicating comparable competency across all areas of specialization. The findings indicate that teachers from Home Economics, Industrial Arts, Agricultural Arts, and Information and Communication Technology possess similar competency levels regardless of their specialization. This result is consistent with Stein (2020), who found that teachers' specialization does not significantly influence overall teaching competency.

3.3.5 NC Program

The findings revealed no significant difference between teachers' NC Program and their competency across all competency domains and overall competency, as all p-values were greater than 0.05. Teachers holding different National Certificate qualifications demonstrated similar competency levels. These results suggest that the type of NC Program attained does not significantly influence teacher competency. Regardless of certification, TLE teachers maintained consistently high competency across the assessed domains. This finding supports Chavez (2020), who emphasized that classroom competency is influenced more by teaching experience and continuous professional development than by technical certification alone.

3.3.6 Years of Teaching

The results indicated no significant difference between years of teaching and teachers' competency in all competency domains and overall competency. All p-values exceeded the 0.05 significance level, demonstrating comparable competency regardless of teaching experience. The findings imply that both novice and experienced teachers maintain similar levels of competency in TLE instruction. This suggests that teaching tenure alone does not determine teacher effectiveness. The results agree with Morrison (2018), who emphasized that continuous professional growth, reflective practice, and practical application of skills contribute more to competency than years of experience alone.

3.3.7 Number of Trainings Attended

The findings showed no significant difference between the number of trainings attended and teachers' overall competency. Significant difference was observed only in Instructional Skills, while Content Skills, Practical Skills, Technical Proficiency Skills, and the overall competency remained statistically insignificant. The results indicate that attending more trainings contributes specifically to instructional competence but does not significantly affect teachers' overall competency. Teachers maintained consistently high competency across most domains regardless of the number of trainings attended. These findings are consistent with Santiago (2020), who emphasized that competency is strengthened more by the practical application of acquired skills, continuous self-directed learning, and reflective teaching practices than by the frequency of training participation alone.

4. Conclusion & Recommendations

The study concluded that TLE teachers were generally experienced, predominantly female, and professionally diverse, with most having more than 11 years of teaching experience and limited participation in professional trainings. Overall, the teachers rated themselves as Highly Competent in Content Skills, Practical Skills, Instructional Skills, and Technical Proficiency Skills, although opportunities remain for improvement in technology integration, updated industry practices, and continuous professional development. Furthermore, most demographic variables, including age, sex, specialization, NC program attainment, years of teaching experience, and number of trainings attended, did not significantly influence overall competency. However, teaching position was significantly associated with practical, instructional, technical proficiency, and overall competency, while training participation significantly contributed to improved instructional skills.

Professional development programs should be continuously implemented to sustain and further enhance the competencies of TLE teachers through regular trainings, workshops, industry immersion, and technology-upskilling initiatives. Greater participation in NC programs and professional trainings should be encouraged, particularly for teachers with limited training exposure and those in underrepresented specializations, to strengthen technical, instructional, and practical competencies. Schools should also promote mentorship, targeted instructional skills training, career progression opportunities, and continuous professional learning to maintain high competency levels and support long-term teaching excellence.

This study was limited to the demographic profile and self-assessed competency of TLE teachers within the identified domains of Content Skills, Practical Skills, Instructional Skills, and Technical Proficiency Skills. The findings were based on teachers' self-assessment and the selected demographic variables; therefore, the conclusions are limited to the respondents and context covered by the study.

Compliance with ethical standards

The study was conducted in accordance with established ethical standards. Permission to conduct the research was obtained from the Schools Division Superintendent of Cavite and the principals of the participating schools prior to data collection. Participation was voluntary, informed consent was obtained from all respondents before completing the questionnaire, and the anonymity and confidentiality of the information collected were maintained throughout the study to protect respondents' privacy.

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