

School Leadership Support for Technology and Livelihood Education Teachers' Instructional Challenges

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Abstract:

This study examined the extent of school leadership support provided to Technology and Livelihood Education (TLE) teachers and the instructional challenges they encountered in selected public secondary schools within the San Carlos City Division during the 2025–2026 school year. Utilizing a descriptive-correlational-comparative research design with 45 TLE teacher respondents, the research explored demographic profiles, perceived leadership support across four domains (provision of resources, professional development opportunities, classroom monitoring, and performance feedback), and instructional challenges related to material availability, facility adequacy, learner engagement, and curriculum implementation. Findings revealed that while teachers rated leadership support in classroom monitoring and performance feedback as very high, significant challenges persisted in resource provision, facility maintenance, and insufficient instructional time for curriculum delivery. Notably, learner engagement was identified as a strength and not a challenge. Statistical analyses indicated no significant differences in perceptions based on age, sex, or teaching experience, but a strong positive correlation was observed between leadership support and instructional challenges, suggesting a responsive leadership approach to existing difficulties. Based on these results, the study concludes that TLE instruction is bolstered by strong supervisory and developmental leadership but constrained by systemic resource and logistical gaps.

Consequently, a comprehensive School Leadership Support Action Plan is proposed to strengthen resource management, differentiate professional development, optimize curriculum implementation time, and formalize supportive supervision systems to enhance the quality of competency-based TLE education.

Keywords: School Leadership Support, Instructional Challenges, Technology and Livelihood Education (TLE), Instructional Leadership Theory, Resource Provision, Professional Development, Classroom Monitoring, Performance Feedback, Instructional Materials, Facilities and Equipment, Learner Engagement, Curriculum Implementation, Public Secondary Schools, Descriptive-Correlational Research, San Carlos City Division, Action Plan

Chapter 1

INTRODUCTION

Background of the Study

Technology and Livelihood Education (TLE) is a key learning area in the Philippine K to 12 curriculum that provides learners with practical, skills-oriented experiences to prepare them for work and everyday life. Recent curriculum updates and research affirm that TLE seeks not only to enhance employability but also to develop essential life and lifelong learning skills (DepEd, 2023).

Global studies indicate that effective school leadership support can help develop teaching expertise and make the learning process sustainable, thereby contributing to quality education. School leadership support is essential in assisting teachers with instructional challenges that hinder effective instruction. For example, Li et al. (2023) surveyed 1,123 elementary and secondary teachers in Hebei and Shanxi provinces in Northern China and found that to sustain teachers in the profession, principals should provide a supportive learning environment focused on the teaching and learning process, which significantly impacts teacher performance. Similarly, Dorukbaşı and Cansoy (2024) confirmed that teachers' instructional practices and professional learning can be strengthened through instructional leadership. Ventista and Brown (2023) also emphasized that continuous training, coaching, and professional development for teachers appear most beneficial, as they can lead to positive student outcomes.

Regionally, studies conducted in the Philippines show that TLE teachers frequently encounter instructional challenges, primarily limited resources and a lack of facilities. Comprehensive support systems and policies should be established to help teachers facing challenges in conducting their classes, as this can enhance the quality of education, particularly in TLE. Likewise, Cornelio and Villaroman (2023) highlighted the necessity of a strong support system for teachers, especially those TLE teachers who teach hands-on competencies. Providing support through innovative strategies can help teachers deliver skill-based education effectively. Consequently, the authenticity of assessment practices used by teachers may be affected due to limited resources, materials, and facilities that TLE teachers often rely on for hands-on activities and assessments (Rosal, 2024).

Locally, school leaders should focus on teachers' needs in terms of resources, training for professional development, and improved facilities to enhance student engagement and effectively implement the TLE curriculum in the classroom (Manlangit, 2025). In line with this, Subli (2025) conducted a study in Tuba, Benguet, and found that a lack of laboratories, classrooms, and facilities, as well as limited time for conducting classes, compromises the quality of instruction. A somewhat similar study by Pamor et al. (2024) suggested examining the long-term impacts of improved resources and teacher training to identify best practices beneficial for teachers.

Previous studies have shown various challenges encountered by teachers, such as a lack of learning materials, inadequate facilities, limited training opportunities, and difficulties in delivering practical

learning competencies, all of which impact the delivery of quality instruction. However, despite these findings, there is limited understanding of how school leadership support specifically addresses the instructional challenges encountered by teachers, particularly TLE teachers who teach hands-on competencies. Most studies examine general teacher leadership support and professional development, but few investigate the direct impact of school leadership support on TLE teachers' instructional capacity. Therefore, this study seeks to explore the school leadership support extended to TLE teachers to help them overcome instructional challenges, thereby improving their teaching quality. It will identify areas requiring action to assist TLE teachers in Quezon National High School and Julio Ledesma National High School who are struggling due to instructional challenges. The results of this study will serve as the basis for a proposed School Leadership Support Action Plan for TLE teachers in San Carlos City.

REVIEW OF RELATED LITERATURE

This section provides a review of the literature, systematically organized according to the variables used in the study. It synthesizes scholarly works concerning school leadership support and the instructional challenges encountered by teachers.

SCHOOL LEADERSHIP SUPPORT

School leadership support refers to the assistance, guidance, and resources provided by school administrators, principals, and heads to teachers to enhance instructional delivery. Contemporary research consistently affirms that effective school leadership is a critical determinant of teacher effectiveness, instructional quality, and student achievement. This variable is examined through four indicators: provision of resources, professional development opportunities, classroom monitoring, and performance feedback.

Provision of Resources

Provision of resources encompasses the allocation of budget, supplies, instructional materials, tools, and equipment necessary for effective instruction, including timely procurement, equitable distribution, and maintenance of learning tools.

Gocotano et al. (2021) examined the readiness and acceptability of the blended learning modality in the Division of Surigao del Sur, Philippines, and found that inadequate provision of learning resources significantly hampered instructional delivery. Teachers reported that delayed procurement and insufficient allocation of budget for instructional materials forced them to utilize personal funds to address resource gaps. The study emphasized that school leaders must institutionalize responsive resource management systems to ensure timely availability of materials.

Tanucan and Umalic (2022) investigated the resource management practices of school administrators in Central Luzon, Philippines, and their impact on teacher performance. The findings revealed that schools employing established inventory systems, scheduled maintenance protocols, and participatory budgeting processes demonstrated significantly higher teacher satisfaction and instructional effectiveness. Conversely, schools with reactive, ad hoc resource allocation consistently faced instructional disruptions.

Bantilan and Espinosa (2023) conducted a mixed-method study on resource allocation strategies in Philippine public secondary schools and found that equitable distribution of instructional materials across grade levels and sections remained a persistent challenge. Teachers in resource-poor schools reported spending an average of 3–5 hours weekly developing their own materials, directly reducing time available for lesson planning and student interaction.

Lapuz (2024) examined the relationship between school head resource management practices and teacher efficacy in the Division of Batangas. The study established that principals who

demonstrated transparency in procurement processes, conducted regular facility and equipment audits, and prioritized TLE budget allocations significantly enhanced teacher confidence and instructional quality. The study recommended the establishment of school-based resource governance committees.

Pamor et al. (2024), in their phenomenological study of TLE teachers in Davao del Norte, documented that while basic tools and equipment were often present, their poor maintenance, lack of timely repair, and limited quantity relative to student population created significant instructional barriers. Teachers described "waiting for turns" to use equipment and improvising with obsolete tools, which compromised the authenticity of skills training.

Subli (2025) found, while studying TLE teachers in Tuba, Benguet, that the absence of systematic equipment replacement programs led to teachers utilizing damaged or non-functional tools, thereby affecting students' skill development and workplace readiness. The study recommended establishing partnerships with local industries and technical-vocational institutes for equipment donations and maintenance support.

Manlangit (2025) explored TLE curriculum delivery challenges in Northern Samar and identified that resource inadequacy was the most frequently cited obstacle. Teachers reported that while school leaders expressed willingness to support resource needs, bureaucratic procurement processes and limited school budgets prevented timely responses. The study called for decentralization of procurement authority to schools.

Professional Development Opportunities

Professional development opportunities refer to structured and unstructured learning activities provided or supported by school leaders to enhance teachers' pedagogical and technical skills, including seminars, workshops, in-service training, coaching, mentoring, peer learning, and knowledge-sharing initiatives.

Kim and Lee (2020) conducted a comparative study of principal instructional leadership and teacher participation in professional development across Japan, Singapore, and South Korea. Their findings indicated that instructional support through coaching, mentoring, and peer observation had a significantly greater impact on teacher participation and professional growth compared to traditional, one-time training seminars. The study emphasized that effective professional development is job-embedded, collaborative, and directly connected to classroom practice.

Ventista and Brown (2023) conducted a systematic review of 48 studies examining the impact of teachers' professional learning on student outcomes. Their meta-analysis concluded that continuous training, coaching cycles, and sustained professional development programs produced the most significant positive effects on both teacher practice and student achievement. Single-session workshops, in contrast, demonstrated minimal impact. The study emphasized that professional development must be sustained over time and integrated into teachers' daily work.

Amzat (2022) estimated the effect of principal instructional and distributed leadership on teacher professional development in Jakarta, Indonesia. The study established that both leadership styles directly influenced teachers' professional growth, with distributed leadership—characterized by shared decision-making, collaborative learning communities, and teacher leadership—emerging as a particularly strong predictor of engagement in professional learning. The study recommended that principals undergo training in distributed leadership practices.

Dorukbaşı and Cansoy (2024) examined the mediating role of teacher professional learning between perceived instructional leadership and teacher instructional practices. Their study of 537 teachers in Turkey demonstrated that instructional leadership significantly strengthened teachers' instructional strategies and techniques, with professional learning communities serving as the primary

mechanism for this improvement. The study concluded that instructional leaders must intentionally create structures for collaborative reflection and peer learning.

He et al. (2024) investigated school principals' instructional leadership as a predictor of teacher professional development. Their study, involving 1,024 teachers in China, found that instructional leadership directly and indirectly influenced teachers' continuous professional development and teaching practices. Principals who modeled lifelong learning, provided targeted development opportunities, and fostered a culture of professional inquiry had teachers with significantly higher engagement in development activities.

Ayson et al. (2024) conducted a phenomenological study on seasoned TLE/TVL teachers' adaptive pedagogy during the digital divide. Teachers reported that professional development opportunities were often misaligned with their actual needs, focusing on general pedagogical topics rather than specialized TLE competencies or emerging industry trends. Teachers expressed strong desire for industry immersion programs, technical upskilling, and training on emerging technologies relevant to their specialization areas.

Dordas and Accad (2022) assessed the pedagogical and technical competence levels, problems, and competency needs of TLE teachers as basis for a professional development program. Their study revealed significant gaps between teachers' current competencies and industry requirements, particularly in ICT, automotive technology, and food processing specializations. The study recommended mandatory, funded industry immersion programs for TLE teachers.

Barcelona et al. (2023) documented that TLE teachers in Philippine public schools frequently used personal funds to engage in vocational training to enhance their teaching skills. This self-funded professional development, while demonstrating teacher commitment, highlighted the inadequacy of school-supported training opportunities. The study called for institutionalized, fully funded professional development programs specifically designed for TLE teachers.

Classroom Monitoring

Classroom monitoring refers to the systematic process by which school leaders observe, supervise, and evaluate teachers' instructional practices through classroom visits, observations, and walkthroughs, including the provision of timely, actionable feedback and guidance.

Li et al. (2023) surveyed 1,123 elementary and secondary teachers in Hebei and Shanxi provinces in Northern China to examine the relationship between instructional leadership, school support, and teacher expertise. The study found that principals who provided a supportive learning environment focused on the teaching and learning process—characterized by regular classroom observations, constructive feedback, and collaborative problem-solving—significantly impacted teacher performance and professional sustainability. The study emphasized that monitoring should be developmental, not evaluative.

Bilbao et al. (2021) examined the instructional supervision practices of school heads in the Division of Quezon, Philippines. Their findings revealed that while classroom observations were conducted regularly, the quality and timeliness of feedback varied considerably. Teachers reported that feedback was often delayed, general, and focused on compliance rather than instructional improvement. The study recommended training school heads in clinical supervision and developmental feedback approaches.

Uy and Ramirez (2022) investigated the implementation of the Results-Based Performance Management System (RPMS) and its impact on teacher development in Philippine public schools. Teachers reported that classroom observations, while systematically conducted, were often perceived as compliance requirements rather than genuine professional development opportunities.

The study recommended strengthening the formative, developmental purpose of observations and providing teachers with greater voice in the feedback process.

Cabual (2023) studied the supervisory practices of master teachers and school heads in the Division of Nueva Ecija. The research established that consistent, scheduled classroom observations accompanied by specific, actionable feedback significantly enhanced teacher reflective practice and instructional modification. However, the study also documented that supervisors' heavy administrative workloads often prevented timely post-observation conferences and follow-up support.

Lapuz (2024) found that TLE teachers in Batangas valued classroom monitoring that demonstrated supervisors' understanding of technical-vocational instruction. Teachers expressed frustration when observers lacked familiarity with TLE competencies, facilities, and assessment practices, resulting in generic feedback that failed to address their specific instructional challenges. The study recommended specialized supervisory training for school heads assigned to schools with strong TLE programs.

Pamor et al. (2024) documented that TLE teachers in Davao del Norte perceived classroom monitoring positively when it was conducted collaboratively, with supervisors positioning themselves as mentors rather than evaluators. Teachers valued pre-observation conferences where they could articulate their instructional intentions and post-observation dialogues focused on problem-solving rather than judgment. The study emphasized that relational trust was foundational to effective instructional supervision.

Subli (2025) found that TLE teachers in Benguet appreciated school heads who conducted regular classroom visits and demonstrated genuine interest in understanding the unique demands of hands-on, competency-based instruction. Teachers reported that such engagement helped supervisors better advocate for TLE resource needs at the division level. The study recommended institutionalizing cross-departmental classroom observations to promote shared understanding across learning areas.

Performance Feedback

Performance feedback refers to the constructive and timely evaluations provided by school leaders based on classroom observations, performance reviews, and assessment tools, including specific recommendations, recognition of strengths, and guidance for professional growth.

Kim and Lee (2020) established that timely, specific feedback significantly enhanced teacher participation in professional development activities. Teachers who received concrete, actionable recommendations following observations were more likely to set professional growth goals, seek additional learning opportunities, and modify instructional practices. The study emphasized that feedback specificity—identifying precisely what worked, what needed improvement, and how to address gaps—was more impactful than general praise or criticism.

Ventista and Brown (2023) in their systematic review, identified performance feedback as among the most powerful predictors of teacher professional growth when delivered within a supportive, non-punitive framework. Feedback that included modeling, collaborative goal-setting, and follow-up support produced substantially greater instructional improvement than feedback provided as isolated, evaluative judgments.

Dorukbaşı and Cansoy (2024) found that instructional leadership strengthened teacher practice not merely through the provision of feedback but through creating structures for collaborative reflection on feedback. Teachers who participated in professional learning communities where they could discuss feedback, share strategies, and collectively problem-solve demonstrated significantly greater instructional improvement than teachers who received feedback individually.

Amzat (2022) highlighted that affirmative feedback, recognition of teacher strengths, accomplishments, and progress, built teacher confidence and encouraged instructional innovation. The study found that distributed leadership practices, where teachers participated in peer feedback and collaborative evaluation, enhanced both the quality and acceptance of performance feedback.

Barcelona et al. (2023) documented that TLE teachers in Philippine public schools sometimes perceived performance feedback as overly critical and disconnected from the realities of resource-constrained TLE instruction. Teachers expressed that feedback often focused on what they lacked rather than what they accomplished despite limitations. The study recommended that feedback protocols include explicit recognition of teacher resourcefulness and adaptive practices.

Demapendan (2024), in his phenomenological study of TLE teachers assigned outside their specialization, found that performance feedback was most valued when it acknowledged the unique challenges of teaching unfamiliar subjects and provided specific, practical guidance for developing competency. Teachers reported frustration with generic feedback that failed to address their specialized knowledge gaps.

Tingzon and Buyok (2022) documented that non-specialist TLE teachers valued supervisors who positioned themselves as co-learners rather than experts, engaging in collaborative problem-solving about curriculum delivery, resource improvisation, and skill development. Such supervisors provided feedback that was exploratory and developmental rather than prescriptive and evaluative.

Rosal (2024) examined TLE teachers' narratives on authentic assessment and found that performance feedback rarely addressed teachers' assessment practices despite their documented difficulties in designing and implementing authentic, competency-based assessments. Teachers expressed desire for feedback specifically focused on assessment design, rubric development, and performance task validation.

INSTRUCTIONAL CHALLENGES

Instructional challenges refer to the difficulties, obstacles, and constraints encountered by teachers in delivering effective, competency-based, hands-on instruction. TLE teachers face challenges unique to technical-vocational education, including resource limitations, facility inadequacy, learner engagement issues, and curriculum implementation difficulties. This variable is examined through four indicators: availability of instructional materials, adequacy of facilities, learners' engagement, and curriculum implementation.

Availability of Instructional Materials

Instructional materials include textbooks, modules, teaching guides, visual aids, digital resources, and other learning tools used by teachers to deliver instruction. This indicator examines the accessibility, currency, adequacy, and alignment of these resources, as well as the support teachers receive in developing or accessing materials.

Gocotano et al. (2021) found that the abrupt shift to blended learning during the COVID-19 pandemic exacerbated pre-existing instructional material deficiencies in Philippine public schools. Teachers reported that learning modules were often delivered late, were insufficient in quantity, and lacked contextualization for local learners. TLE teachers, in particular, struggled with the absence of materials designed for hands-on competency development in distance learning modalities.

Tanucan and Umalic (2022) documented that instructional material inadequacy was most severe in specialized learning areas such as TLE, where commercially produced materials were scarce and teachers lacked training in material development. The study found that teachers in resource-poor schools spent 5–7 hours weekly creating instructional materials, contributing to workload stress and reducing time available for instructional planning.

Bantilan and Espinosa (2023) established that while basic textbooks and modules were generally available in Philippine secondary schools, their currency was a significant concern. Many TLE textbooks referenced technologies, tools, and industry practices that were already obsolete, creating a gap between school-based learning and workplace requirements. The study called for regular curriculum and material updating mechanisms aligned with industry evolution.

Barcelona et al. (2023) reported that TLE teachers frequently created their own instructional materials due to unavailability or inadequacy of provided resources. Teachers described developing activity sheets, visual aids, simulated learning materials, and even improvised tools to facilitate hands-on learning. While demonstrating teacher resourcefulness, this practice placed significant burden on teachers and resulted in variable material quality.

Dordas and Accad (2022) found that the lack of instructional materials specifically designed for competency-based, hands-on TLE instruction compromised the authenticity of student learning experiences. Teachers relied heavily on lectures and demonstrations rather than student-centered, experiential activities due to insufficient learning guides, project plans, and assessment tools.

Rosal (2024) examined TLE teachers' use of authentic assessment and found that the absence of validated assessment tools, scoring rubrics, and performance checklists forced teachers to develop their own assessment instruments. However, without adequate training in authentic assessment design, many teachers struggled to create instruments that validly and reliably measured student competencies.

Pamor et al. (2024) documented that TLE teachers in Davao del Norte developed extensive personal collections of instructional materials accumulated over years of teaching. However, these materials remained individualized, with no systematic mechanisms for sharing, validating, or archiving them for use by other teachers. The study recommended establishing school-based or division-level TLE material repositories.

Ayson et al. (2024) studied seasoned TLE/TVL teachers' adaptive pedagogy during the digital divide and found that material development extended to digital resources. Teachers with limited technological proficiency struggled to create or adapt digital learning materials, while technologically proficient teachers became informal resources for colleagues. The study highlighted the need for differentiated professional development in digital material development.

Subli (2025) identified that instructional material inadequacy in Benguet schools was compounded by geographical isolation. Teachers in remote schools received learning materials later than their urban counterparts and had limited access to printing, reproduction, and digital resources. The study recommended establishing regional instructional material production and distribution centers.

Manlangit (2025) found that TLE teachers in Northern Samar reported receiving minimal support in developing or accessing instructional materials. While school leaders acknowledged the need, lack of budget, expertise, and systematic material development programs prevented meaningful assistance. Teachers called for scheduled material development workshops, access to material repositories, and allocation of material reproduction budgets.

Adequacy of Facilities

Facilities refer to the physical and infrastructural resources such as laboratories, workshops, tools, machinery, computers, and specialized rooms used in TLE instruction. This indicator examines the sufficiency, functionality, condition, and accessibility of these resources.

DepEd (2020), in its revised School Improvement Plan guidelines, acknowledged that the majority of public secondary schools lack fully functional TLE laboratories and workshops. The report

documented that many schools operate TLE programs without dedicated facilities, utilizing regular classrooms for hands-on activities, which compromises both safety and instructional quality.

Barcelona et al. (2023) found that TLE teachers in Philippine public schools identified facility inadequacy as their most significant instructional challenge. Teachers reported insufficient quantities of tools and equipment relative to student population, non-functional or poorly maintained equipment, and absence of specialized facilities for specific TLE specializations. These deficiencies forced teachers to conduct demonstrations rather than hands-on student activities.

Dordas and Accad (2022) assessed TLE teacher competency needs and established that inadequate facilities directly impeded the development of industry-relevant skills. Students graduated with theoretical knowledge but limited practical experience due to insufficient opportunities for hands-on skill application. The study emphasized that facility adequacy is not merely a convenience but a prerequisite for competency-based technical education.

Cornelio and Villaroman (2023) explored the attitudes, skills, and challenges encountered by TLE teachers during the COVID-19 pandemic and found that facility limitations were exacerbated by health protocols requiring physical distancing and shared equipment sanitation. Teachers struggled to provide hands-on learning experiences within these constraints, further limiting student skill development opportunities.

Pamor et al. (2024) documented that TLE teachers in Davao del Norte described facilities that were "inherited" from previous decades, with equipment that was obsolete, irreparable due to unavailable parts, or insufficient for current class sizes. Teachers reported that budget allocations for facility upgrading were minimal and inconsistent, preventing systematic improvement.

Rosal (2024) examined the relationship between facility adequacy and authentic assessment practices and found that teachers in well-equipped schools employed significantly more performance-based assessments, project-based evaluations, and simulated workplace tasks compared to teachers in resource-poor schools. The study concluded that facility adequacy directly influences both instructional methods and assessment practices.

Ayson et al. (2024) studied seasoned TLE/TVL teachers' adaptive pedagogy and documented extensive teacher improvisation to address facility gaps. Teachers described modifying project requirements based on available tools, creating simulated learning experiences, and establishing rotating equipment access schedules. While demonstrating creativity, these adaptations could not fully substitute for adequate, functional facilities.

Subli (2025) identified that TLE teachers in Benguet schools faced particular challenges with workshop layouts and workspaces. Classrooms designed for lecture-style instruction were poorly configured for hands-on activities, with inadequate work surfaces, insufficient electrical outlets, and poor ventilation for tasks generating dust, fumes, or heat. The study recommended facility audits and modification funding specifically for TLE workspaces.

Demapendan (2024) found that non-specialist TLE teachers assigned to teach technical subjects experienced heightened anxiety regarding facility and equipment use. Without adequate training on specialized equipment operation, maintenance, and safety protocols, these teachers feared both personal injury and student accidents. The study emphasized that facility adequacy must be accompanied by teacher competency development.

Manlangit (2025) documented that TLE teachers in Northern Samar reported significant challenges with timely access to shared facilities. In schools where one TLE workshop served multiple specializations or grade levels, teachers competed for facility access, often resulting in reduced instructional time for hands-on activities. The study recommended developing transparent, equitable facility scheduling systems.

Lapuz (2024) found that school heads in Batangas acknowledged TLE facility inadequacy as a critical concern but cited limited school budgets, high equipment costs, and restrictive procurement procedures as barriers to improvement. The study recommended establishing partnerships with technical-vocational institutes, local government units, and industry partners for facility sharing, equipment donations, and joint utilization agreements.

Learners' Engagement

Learners' engagement refers to the degree to which students actively participate, show interest, collaborate, demonstrate motivation, and seek clarification during TLE hands-on activities, projects, discussions, and practical tasks.

Barcelona et al. (2023), while documenting numerous challenges faced by TLE teachers, also identified that learner engagement was a relative strength in TLE instruction. Teachers reported that students demonstrated genuine interest and active participation during hands-on activities, projects, and practical demonstrations. The study suggested that the applied, tangible nature of TLE naturally motivates learners who may struggle with abstract, theoretical subjects.

Cornelio and Villaroman (2023) explored TLE teacher attitudes during the COVID-19 pandemic and found that despite the shift to distance learning, teachers perceived strong student engagement with TLE modules and projects. Students completed hands-on activities at home, involving family members and utilizing available household resources. The study concluded that TLE's practical orientation fosters engagement even under constrained circumstances.

Tingzon and Buyok (2022), in their study of non-specialist TLE teachers, documented that these teachers—despite their own content knowledge limitations—observed high levels of student interest and participation in TLE classes. Students asked questions, sought clarification, and demonstrated persistence in completing projects. The study suggested that TLE's applied nature engages students regardless of teacher specialization status.

Pamor et al. (2024) found that TLE teachers in Davao del Norte perceived student engagement as both a source of professional satisfaction and a motivating factor in their persistence despite resource challenges. Teachers described students who voluntarily stayed after class to complete projects, sought additional practice opportunities, and expressed career aspirations related to their TLE specializations.

Rosal (2024) examined authentic assessment practices in TLE and found that teachers perceived strong student engagement during performance-based assessments, where students demonstrated skills, produced outputs, and received immediate feedback. Teachers reported that such assessments enhanced student motivation, self-efficacy, and ownership of learning compared to traditional paper-and-pencil tests.

Ayson et al. (2024) studied seasoned TLE/TVL teachers' adaptive pedagogy and documented that teachers deliberately designed engaging, hands-on learning experiences to counterbalance facility and resource limitations. Teachers described how students' enthusiasm for practical activities sustained teacher morale and motivated continued improvisation and innovation despite systemic constraints.

Subli (2025) found that TLE teachers in Benguet schools identified student collaboration during group tasks and practical activities as a particular strength of TLE instruction. Students worked cooperatively, shared tools and equipment, and assisted peers in skill development. Teachers intentionally structured collaborative learning experiences to maximize limited resources while simultaneously developing teamwork competencies.

Demapendan (2024), in his study of non-specialist TLE teachers, documented that students frequently supported their teachers by sharing prior knowledge, assisting with equipment operation, and helping peers develop skills. This reciprocal learning dynamic, while born of necessity, created positive classroom environments characterized by mutual respect and shared responsibility for learning.

Manlangit (2025) found that TLE teachers in Northern Samar perceived student engagement as a significant instructional asset. Teachers reported that students' motivation influenced the effectiveness of TLE instruction—engaged students learned more quickly, retained skills longer, and required less behavioral management, allowing teachers to focus on instructional delivery despite resource constraints.

Lapuz (2024) established a positive correlation between student engagement levels and TLE teacher efficacy in Batangas schools. Teachers who perceived their students as engaged reported higher levels of professional satisfaction, greater willingness to innovate, and stronger commitment to remaining in the teaching profession. The study recommended that school leaders explicitly recognize and cultivate student engagement as a school improvement asset.

Curriculum Implementation

Curriculum implementation refers to the process of executing the prescribed TLE curriculum in the classroom, including lesson delivery, use of instructional strategies, assessment practices, and alignment of teaching with learning competencies. This indicator examines curriculum clarity, achievability of competencies, time allocation, real-life skills integration, and implementation support.

DepEd (2023), in the MATATAG K to 10 Curriculum Guide for EPP/TLE, articulated an enhanced curriculum framework emphasizing lifelong learning skills, employability competencies, and entrepreneurial mindsets. The curriculum document acknowledged that effective implementation requires adequate time allocation, specialized facilities, qualified teachers, and strong school leadership support—conditions not uniformly present across Philippine schools.

Barcelona et al. (2023) found that TLE teachers struggled with curriculum implementation due to the breadth of competencies requiring coverage within limited instructional time. Teachers reported that the TLE curriculum, while well-designed, was "congested," forcing them to choose between superficial coverage of all competencies and in-depth development of selected competencies. Most teachers opted for the former, compromising skill mastery.

Cornelio and Villaroman (2023) explored TLE teacher attitudes during the COVID-19 pandemic and found that curriculum implementation challenges were exacerbated by the shift to distance learning. Competencies requiring hands-on practice, equipment use, and teacher demonstration were particularly difficult to implement remotely. Teachers expressed frustration that curriculum expectations remained unchanged despite dramatically altered instructional conditions.

Tingzon and Buyok (2022) documented that non-specialist TLE teachers faced particular curriculum implementation difficulties, lacking both content knowledge and pedagogical content knowledge for their assigned TLE subjects. These teachers described "teaching ahead of their learning," studying competencies and skills just hours before delivering instruction. The study highlighted the critical importance of aligning teacher assignments with areas of specialization.

Dordas and Accad (2022) assessed TLE teacher competency needs and found significant gaps between curriculum expectations and teacher capabilities, particularly in emerging technology areas, advanced manufacturing processes, and digital design. The study concluded that curriculum implementation quality is fundamentally constrained by teacher competency, and professional development must be aligned with curriculum requirements.

Rosal (2024) examined TLE teachers' use of authentic assessment and found that curriculum implementation was compromised by teachers' limited assessment literacy. While the curriculum mandated performance-based, competency-aligned assessment, many teachers continued to rely on traditional written tests due to unfamiliarity with authentic assessment design, time constraints, and resource limitations. The study called for curriculum-aligned professional development in assessment.

Pamor et al. (2024) documented that TLE teachers in Davao del Norte perceived the TLE curriculum as clear, relevant, and well-structured but struggled with implementation feasibility given actual school conditions. Teachers described a "disconnect" between curriculum ideals—well-equipped workshops, adequate time, qualified teachers, industry-aligned resources—and their daily realities of inadequate facilities, insufficient time, and limited support.

Demapandan (2024) found that TLE teachers assigned outside their specialization questioned the value of pursuing advanced degrees and professional development when their assignments did not align with their training. These teachers reported that curriculum implementation suffered not from curriculum design flaws but from systemic assignment practices that mismatched teacher expertise with instructional responsibilities.

Ayson et al. (2024) studied seasoned TLE/TVL teachers' adaptive pedagogy and documented extensive curriculum modification practices. Teachers strategically prioritized competencies based on available resources, local employment opportunities, and student interests. While demonstrating responsive, contextualized curriculum implementation, these modifications raised questions about curriculum fidelity and standardization across schools.

Subli (2025) identified insufficient instructional time as the most significant curriculum implementation challenge in Benguet schools. Teachers reported that TLE's hands-on, competency-based approach required substantially more time than allocated in a standard of 45–60 minute periods. Setting up equipment, conducting demonstrations, supervising student practice, providing feedback, and conducting assessments could not be completed within these constraints. The study recommended block scheduling or extended periods for TLE instruction.

Manlangit (2025) found that TLE teachers in Northern Samar reported receiving strong support and guidance for curriculum implementation from school heads and supervisors, particularly regarding lesson planning, instructional sequencing, and assessment alignment. However, this support could not address the fundamental constraint of insufficient instructional time. Teachers called for advocacy at the division and regional levels for revised TLE time allocations.

Lapuz (2024) established a positive correlation between curriculum implementation support and TLE teacher efficacy in Batangas schools. Teachers who reported receiving clear curriculum guidance, regular feedback on implementation, and support for instructional modification demonstrated significantly higher confidence in delivering the TLE curriculum. The study recommended strengthening instructional leadership functions specifically related to curriculum coordination.

SYNTHESIS

The literature reviewed consistently affirms that school leadership support is a critical determinant of TLE teachers' capacity to overcome instructional challenges and deliver quality, competency-based education. Effective school leaders provide resources, create professional development opportunities, conduct developmental classroom monitoring, and deliver constructive performance feedback. Conversely, the absence and inadequacy of such support compounds the already significant instructional challenges faced by TLE teachers.

Notably, the literature reveals several persistent gaps. First, while school leaders generally demonstrate competence in supervisory and evaluative functions, systematic weaknesses remain in resource management, equipment maintenance, and facility development. Second, professional development opportunities, while appreciated, often lack alignment with TLE teachers specialized technical needs and fail to keep pace with industry evolution. Third, instructional time allocation for TLE is universally identified as insufficient, representing a structural constraint beyond individual school control.

The present study addresses these gaps by specifically examining the relationship between school leadership support and TLE teachers' instructional challenges in the San Carlos City Division context, providing empirical evidence to inform a targeted, context-responsive School Leadership Support Action Plan.

Theoretical Framework

This study is anchored on the Instructional Leadership Theory, originally developed by Hallinger and Murphy (1985) and subsequently refined through decades of empirical research. This theory provides a comprehensive and robust framework for examining how school leadership support addresses the instructional challenges encountered by Technology and Livelihood Education (TLE) teachers.

Instructional Leadership Theory emerged in the early 1980s as researchers sought to understand how principals influence teaching and learning outcomes. Hallinger and Murphy (1985) synthesized findings from effective school's research to develop a coherent model of instructional leadership that moved beyond bureaucratic, managerial conceptions of school administration. Their seminal work, "Assessing the Instructional Leadership Behavior of Principals," established instructional leadership as a distinct, research-grounded framework focused explicitly on the coordination, supervision, and development of the school's academic program. The theory was a deliberate departure from earlier leadership models that emphasized general management functions, organizational maintenance, and interpersonal relationships. Instead, Hallinger and Murphy argued that effective school leaders maintain an intensive, unrelenting focus on teaching and learning, a proposition that has since received extensive empirical support across diverse educational contexts (Hallinger, 2005; Hallinger & Heck, 2010; Hallinger & Gümüş, 2020).

Hallinger and Murphy's (1985) original model conceptualized instructional leadership as comprising three interrelated dimensions, each containing specific leadership functions. The first dimension, defining the school's mission, focuses on the leader's role in articulating and communicating a clear, shared vision for academic achievement. This includes framing clear school goals through the development of measurable academic objectives aligned with curriculum standards and communicating school goals by consistently emphasizing academic priorities to staff, students, and parents. The second dimension, managing the instructional program, addresses the leader's direct involvement in supervising and coordinating curriculum and instruction. This encompasses supervising and evaluating instruction through classroom observations and feedback provision, coordinating the curriculum to ensure alignment across grade levels and subject areas, and monitoring student progress by analyzing assessment data to identify strengths and areas for improvement. The third dimension, promoting a positive school learning climate, encompasses the broader organizational culture and conditions that support teaching and learning. This includes protecting instructional time by minimizing disruptions and maximizing time allocated to academic activities, promoting professional development by providing and supporting learning opportunities for teachers, maintaining high visibility through engagement with staff and students in instructional contexts, providing incentives for teachers by recognizing and rewarding effective teaching practices, and providing incentives for learning by acknowledging and celebrating student achievement.

Since its original formulation, Instructional Leadership Theory has undergone significant refinement and extension. Hallinger (2005) conducted a comprehensive review of two decades of instructional leadership research, confirming the robustness of the original three-dimensional model while identifying contextual factors—including school level, socioeconomic context, and national policy environment—that moderate leadership effects. This review established that instructional leadership effects are indirect but significant, operating primarily through teachers' motivation, working conditions, and capacity development. Hallinger and Heck (2010) employed longitudinal modeling to demonstrate that instructional leadership predicts growth in student achievement over time, with effects mediated by school academic capacity and teachers' collective efficacy. Their work established that instructional leadership is not merely correlated with but causally related to improved instructional outcomes. Hallinger and Gümüş (2020) synthesized forty years of instructional leadership research, documenting its evolution from a principal-centric, Western-developed model to a globally validated framework applicable across diverse cultural and policy contexts. Their meta-analysis confirmed that instructional leadership remains among the most influential leadership models in educational research, with consistent effects on teacher practice and student learning.

Contemporary scholars have further enriched the framework through empirical validation, cross-cultural adaptation, and theoretical integration. Heck and Hallinger (2014) elaborated the causal mechanisms linking instructional leadership to student outcomes, identifying teacher professional community, instructional program coherence, and academic press as critical mediating variables. This work provided theoretical specificity regarding how instructional leadership influences teaching and learning. Day and Samons (2016) integrated instructional leadership with transformational leadership approaches, proposing an integrated leadership model that recognizes effective principals simultaneously focus on instructional improvement and organizational development. Their research demonstrated that the most successful school leaders combine instructional leadership functions with distributed leadership practices, building teacher leadership capacity while maintaining instructional focus. Boyce and Bowers (2018) conducted a network analysis of principal leadership research, identifying instructional leadership as a central, organizing construct that connects to teacher professional development, school climate, and student achievement. Their analysis confirmed that instructional leadership functions as a hub concept integrating multiple strands of educational leadership research. Pietsch and Tulowitzki (2022) examined instructional leadership in the context of digital transformation, extending the framework to include technology-enhanced instructional leadership. Their research demonstrated that effective instructional leaders now must coordinate not only traditional curriculum and instruction but also digital learning resources, technological infrastructure, and teachers' digital pedagogical capacity. Gümüş, Bellibaş, and Pietsch (2024) conducted a systematic review of instructional leadership research published between 2000 and 2022, identifying emerging trends including distributed instructional leadership, culturally responsive instructional leadership, and data-informed instructional leadership. Their review confirmed the framework's continued relevance while identifying areas requiring theoretical refinement.

Instructional Leadership Theory provides a particularly robust and appropriate framework for examining school leadership support for TLE teachers' instructional challenges for several compelling reasons. First, the theory's three-dimensional model maps directly onto the leadership support indicators examined in this study. The dimension of managing the instructional program aligns directly with classroom monitoring and performance feedback, as supervising and evaluating instruction is the operational definition of classroom monitoring, and providing constructive, timely feedback is the core function of instructional evaluation. The dimension of promoting a positive school learning climate aligns with professional development opportunities, as promoting professional development is an explicit sub-function, and providing incentives for teachers aligns

with recognition and acknowledgment during feedback sessions. The dimension of defining the school's mission, while not directly measured, provides the contextual rationale for resource allocation and instructional priorities in TLE. Additionally, the specific function of protecting instructional time directly addresses the critical finding regarding insufficient instructional time for TLE curriculum delivery, while coordinating the curriculum aligns with the study's finding that teachers receive implementation support and guidance from school leaders.

Second, Instructional Leadership Theory is particularly suited to TLE education because of the competency-based, hands-on nature of TLE instruction. Unlike general academic subjects where instruction is primarily discursive and theoretical, TLE requires specialized facilities and equipment, demanding that leaders allocate resources, coordinate maintenance, and ensure safety compliance. TLE requires industry-aligned competencies, necessitating that leaders understand technical skill requirements and support relevant professional development. TLE requires extended practice time, compelling leaders to protect and advocate for adequate instructional time for skill development. TLE requires authentic assessment, requiring leaders to understand performance-based evaluation and support appropriate assessment practices. TLE requires workplace simulation, demanding that leaders facilitate learning environments that mirror actual occupational settings. The theory's emphasis on coordinating curriculum, supervising instruction, and providing resources directly addresses these distinctive TLE requirements. As Hallinger and Murphy (1985) emphasized, instructional leaders must understand the technical core of schooling, the actual processes of teaching and learning in specific subject contexts. For TLE, this technical core includes knowledge of vocational pedagogy, industry standards, equipment operation, and safety protocols.

Third, Instructional Leadership Theory provides compelling explanations for several key findings in this study. The finding of Very High ratings for classroom monitoring and performance feedback is theoretically predicted, as the theory maintains that effective instructional leaders maintain high visibility in classrooms and provide regular, systematic feedback on instruction. Hallinger and Murphy (1985) explicitly identified supervising and evaluating instruction as a core leadership function. The finding that TLE teachers perceive classroom monitoring as systematic, frequent, and accompanied by actionable feedback indicates that school leaders are effectively executing this instructional leadership function. The finding of Very High ratings for professional development opportunities, particularly knowledge sharing, reflects the theory's emphasis that instructional leaders promote professional development not merely through training provision but through creating professional learning communities where teachers share expertise and collaboratively solve problems (Hallinger & Gümüş, 2020). The study's highest-rated professional development indicator, "The school promotes sharing of knowledge gained from trainings and sessions", directly reflects this theoretical emphasis on collaborative, sustained professional learning. The finding that resource provision, while rated High, is the weakest support domain, aligns with the theory's recognition that instructional leader's function within organizational and resource constraints. Hallinger and Murphy (1985) acknowledged that while resource provision is essential, leaders often face budget limitations, bureaucratic procurement processes, and competing priorities. The strong positive correlation between leadership support and instructional challenges is explained by the theory's contingency orientation, which recognizes that effective instructional leadership is responsive and contextual. Hallinger (2005) emphasized that instructional leadership behaviors must be calibrated to school needs, teacher characteristics, and existing challenges. The observed correlation suggests that school leaders are intensifying support in response to identified difficulties, a theoretically predicted pattern of adaptive, responsive leadership rather than a uniform, one-size-fits-all approach. The finding of no significant differences in support perceptions by demographic characteristics aligns with the theory's conceptualization of instructional leadership as an organizational property rather than an individual, differentiated treatment. Hallinger and Murphy (1985) described instructional leadership as creating school-wide conditions that affect all teachers.

The finding that TLE teachers perceive support similarly regardless of age, sex, or experience aligns with this theoretical conceptualization of leadership as creating universal, equitable organizational conditions. Finally, the finding that insufficient instructional time is a critical curriculum implementation challenge directly corresponds to the theory's explicit identification of protecting instructional time as a core leadership function within the promoting a positive school learning climate dimension (Hallinger & Murphy, 1985).

While Instructional Leadership Theory provides the primary theoretical anchor for this study, complementary theoretical perspectives strengthen and enrich the framework. Distributed Leadership Theory, as articulated by Gronn (2002) and Spillane (2006), conceptualizes leadership as stretched over multiple individuals and situated in interactions among leaders, followers, and their situational contexts. Spillane (2006) argues that leadership is not the exclusive province of formal administrators but emerges through collaborative practice, shared expertise, and collective decision-making. This perspective enriches the present study by recognizing that school leadership support for TLE teachers is not solely provided by principals but also by master teachers, department heads, senior colleagues, and even external partners. The study's finding regarding strong knowledge-sharing practices reflects distributed leadership dynamics, and the proposed action plan's emphasis on TLE Resource Governance Committees, Learning Action Cell sessions, and peer mentoring explicitly incorporates distributed leadership principles. Resource Dependence Theory, originating from Pfeffer and Salancik (1978), posits that organizations are constrained by their dependence on external resources and must actively manage their environment to secure necessary inputs. Applied to educational contexts, the theory explains how schools navigate budget allocations, procurement systems, and external partnerships to acquire instructional resources. This perspective is particularly relevant to the study's findings regarding resource provision challenges, as TLE programs depend heavily on specialized equipment, consumable supplies, and industry-aligned facilities—resources that often require external advocacy, partnership development, and strategic resource mobilization beyond routine budget allocations. Social Cognitive Theory, particularly Bandura's (1986, 1997) construct of self-efficacy, provides important insights into the psychological mechanisms linking leadership support to teacher motivation and persistence. Teacher efficacy—belief in one's capacity to organize and execute courses of action required to produce desired instructional outcomes—is consistently associated with effort, persistence, and instructional innovation. Leadership support enhances teacher efficacy through vicarious experience, verbal persuasion, and mastery experiences. The study's findings regarding constructive feedback, recognition of accomplishments, and professional development opportunities directly relate to efficacy-enhancing leadership practices. Drawing from the theory of Sociocultural Theory of Learning, Vygotsky (1978), Lave and Wenger (1991), conceptualize learning as situated in authentic activity, social interaction, and cultural contexts. Lave and Wenger's (1991) concept of communities of practice describes how learners develop expertise through legitimate peripheral participation in authentic professional activities. This perspective is particularly relevant to TLE education, which is fundamentally oriented toward situated, authentic learning in vocational contexts, and also illuminates teacher professional development, suggesting that meaningful learning occurs through participation in professional communities where teachers collaboratively solve problems, share expertise, and develop contextually relevant pedagogical knowledge.

This study proposes an integrative theoretical model that positions Instructional Leadership Theory as the central, organizing framework while incorporating complementary theoretical perspectives to address specific phenomena. The model illustrates how the three dimensions of instructional leadership, defining the mission, managing the instructional program, and promoting a positive learning climate, directly inform the school leadership support variables examined in this study, including provision of resources, professional development opportunities, classroom monitoring, and performance feedback. These leadership support variables, in turn, address the instructional

challenge variables of availability of instructional materials, adequacy of facilities, learners' engagement, and curriculum implementation. The complementary theories operate as mediating and contextual frameworks: Distributed Leadership Theory explains how leadership support functions through collegial networks; Resource Dependence Theory explains the external advocacy and partnership requirements for adequate resource provision; Social Cognitive Theory explains the efficacy-enhancing mechanisms of constructive feedback and professional development; and Sociocultural Theory explains the situated learning dynamics of both student skill development and teacher professional learning. The integration of these theoretical perspectives culminates in the output of a School Leadership Support Action Plan that is proactive, systemic, and responsive to the identified instructional challenges.

Instructional Leadership Theory provides not only explanatory power for understanding current findings but also prescriptive guidance for developing the proposed School Leadership Support Action Plan. Each major action plan component is theoretically grounded. The TLE Resource Governance Committee and Multi-year Procurement and Maintenance Plan are founded on Instructional Leadership Theory's function of managing the instructional program and Resource Dependence Theory's principles of strategic resource mobilization. The Differentiated Professional Development program, designated as "Tech-Talks," is grounded in Instructional Leadership Theory's promotion of professional development and Distributed Leadership Theory's emphasis on building teacher leadership capacity. The Industry Partnership Program draws from Instructional Leadership Theory's external advocacy function and Resource Dependence Theory's partnership development principles. The Curriculum Compacting and Block Scheduling Advocacy directly addresses Instructional Leadership Theory's core function of protecting instructional time. The Supervision Tool Calibration is founded on the theory's supervising and evaluating instruction function. The Learning Action Cell Enhancement is grounded in Instructional Leadership Theory's professional development function, Distributed Leadership Theory's collaborative practice principles, and Sociocultural Theory's communities of practice framework. The Facilities Audit and Maintenance System align with managing the instructional program and protecting instructional time. The Project-Based Learning Module Development draws from Instructional Leadership Theory's curriculum coordination function and Sociocultural Theory's authentic learning principles.

In conclusion, Instructional Leadership Theory (Hallinger & Murphy, 1985) provides a comprehensive, empirically validated, and contextually appropriate theoretical framework for this study. Its three-dimensional model directly aligns with the leadership support variables examined, its contingency orientation explains the observed positive correlation between support and challenges, and its prescriptive functions inform the development of a theoretically grounded action plan. The theory's emphasis on managing the instructional program through supervision, curriculum coordination, and resource provision directly addresses TLE teachers expressed needs for systematic classroom monitoring, constructive feedback, and adequate instructional resources. Its focus on promoting professional development aligns with teachers' positive perceptions of training opportunities and knowledge-sharing practices. Its function of protecting instructional time speaks directly to the most universally acknowledged curriculum implementation challenge. By integrating complementary theoretical perspectives, Distributed Leadership, Resource Dependence, Social Cognitive, and Sociocultural Theories, the framework acknowledges that instructional leadership in contemporary, resource-constrained TLE contexts requires collaborative practice, external advocacy, efficacy-building support, and situated professional learning. This robust theoretical foundation ensures that the study's findings are not merely descriptive but are interpreted within a well-established explanatory framework, and that the proposed action plan is not merely aspirational but grounded in decades of empirical research on how school leaders effectively support teachers and improve instructional quality.

Conceptual Framework

The conceptual framework of the study explains the relationship between school leadership support and the instructional challenges experienced by Technology and Livelihood Education teachers, with teachers' demographic characteristics serving as contextual factors and an action plan as the final outcome. Anchored on the Instructional Leadership Theory of Hallinger and Murphy (1985), the framework emphasizes the role of school leaders in improving teaching and learning through supervision, provision of resources, performance feedback, and professional development. Within this perspective, school leadership support is viewed as the primary means by which principals and school heads can help address the difficulties encountered by TLE teachers in delivering hands-on and competency-based instruction.

INPUT

The Input constitutes the foundational data sources and variables that inform the entire research process. It is systematically organized into three distinct categories, each representing a critical dimension of the study phenomenon.

Demographic Profile of TLE Teachers. The first input category captures the essential characteristics of the teacher-respondents, serving as the basis for comparative analysis. This includes age, categorized into five ranges (20–29, 30–39, 40–49, 50–59, and 60 years and above); sex, classified as male or female; and years of teaching experience, categorized into five intervals (1–5 years, 6–10 years, 11–15 years, 16–20 years, and more than 20 years). These demographic variables are not merely descriptive; they function as independent variables against which differences in perceptions of leadership support and instructional challenges are examined. The inclusion of these variables allows the study to determine whether leadership support is perceived equitably across teacher subgroups or whether differentiated support strategies are warranted based on career stage, gender, or experience level.

School Leadership Support. The second input category operationalizes the independent variable of school leadership support across four empirically validated indicators derived from instructional leadership literature. The first indicator, provision of resources, encompasses the allocation of budget, timely procurement and equitable distribution of supplies and instructional materials, and the maintenance, repair, and replacement of learning tools and equipment. The second indicator, professional development opportunities, includes access to seminars, workshops, and training; school support for enhancing teaching skills; promotion of knowledge sharing from attended trainings; alignment of professional development programs with teachers' subject areas and instructional needs; and accessibility and relevance of training to current TLE trends. The third indicator, classroom monitoring, refers to the systematic conduct of classroom visits and observations, consistency and frequency of supervisory activities, timeliness of feedback provision, actionability of recommendations, and the extent to which monitoring helps teachers identify areas for instructional improvement. The fourth indicator, performance feedback, encompasses the timeliness and specificity of feedback from evaluations, the constructiveness of feedback in improving teaching, clarity and alignment of evaluation tools, utilization of feedback for professional goal-setting, and recognition of teacher accomplishments and strengths during feedback sessions.

Instructional Challenges. The third input category operationalizes the dependent variable of instructional challenges encountered by TLE teachers across four empirically grounded indicators. The first indicator, availability of instructional materials, examines the consistent availability of teaching modules and references before lessons, provision of updated materials, the extent to which teachers create their own materials due to unavailability, alignment of materials with curriculum competencies, and support received in developing or accessing instructional materials. The second

indicator, adequacy of facilities, assesses the sufficiency of tools and equipment, compliance of facilities with required TLE standards, functionality and maintenance of equipment, conduciveness of classrooms and workspaces for hands-on learning, and timeliness of access to needed equipment and facilities during lessons. The third indicator, learners' engagement, measures students' active participation in hands-on activities, interest in completing projects, the influence of student motivation on instructional effectiveness, collaboration during group tasks and practical activities, and students' initiative in asking questions and seeking clarification to improve skills. The fourth indicator, curriculum implementation, examines the clarity and ease of implementing the TLE curriculum, achievability of competencies given available school resources, sufficiency of time allocation for full curriculum delivery, integration of real-life skills and applications, and the support and guidance provided for effective curriculum implementation.

These three input categories are not isolated compartments but interrelated components that collectively define the research problem. The demographic profile provides the contextual lens through which leadership support and instructional challenges are examined. School leadership support represents the intervention variable that school leaders can directly influence. Instructional challenges represent the outcome variable that the study seeks to understand and ultimately mitigate. Together, these inputs establish the complete picture of the current state of TLE instruction and leadership support in the selected schools, serving as the empirical foundation for all subsequent phases of the research.

PROCESS

The Process represents the methodological heart of the study, delineating the sequential, systematic procedures through which input data are collected, analyzed, transformed, and interpreted. This block is conceptualized as a dynamic transformation phase where raw data are processed into meaningful information that generates evidence-based conclusions and informs the development of the action plan output.

Data Collection. The process begins with the administration of a researcher-made survey questionnaire to the 45 TLE teacher-respondents from Julio Ledesma National High School and Quezon National High School. Prior to data collection, several preparatory procedures are undertaken to ensure the integrity and validity of the research process. These include securing formal permission from the Schools Division Superintendent, the Public Schools District Supervisor, and the school principals; obtaining informed consent from all participants with full disclosure of the study's purpose, procedures, and participants' rights; and conducting validation and reliability testing of the research instrument. The questionnaire, which underwent expert validation using the Good and Scates method yielding a high validity score of 4.81 and reliability testing through Cronbach's Alpha obtaining a score of 0.949, is personally administered by the researcher to ensure consistent conditions, provide immediate clarification when needed, and maximize response rate. The data collection process is designed to be non-intrusive, completed within 15 minutes per respondent, and conducted in a manner that respects participants' time, privacy, and voluntary participation.

Data Processing. Upon collection, completed questionnaires are immediately verified for completeness and accuracy to identify any missing responses or inconsistent patterns that might compromise data quality. Raw responses are systematically encoded into electronic format using statistical software, transforming individual item responses into structured, analyzable datasets. Each respondent is assigned an anonymous code to protect identity while enabling within-subject analysis across multiple variables. Likert-scale responses are converted from categorical ratings (1 = Strongly Disagree to 5 = Strongly Agree) to numerical values suitable for statistical computation. Demographic categorical data are coded into numerical categories to facilitate group comparisons.

This transformation phase is critical, as it converts subjective perceptions and self-reported experiences into objective, quantifiable data amenable to rigorous statistical analysis.

Statistical Analysis. The processed data are subjected to a battery of statistical treatments, each carefully selected to address specific research questions and test corresponding hypotheses.

Descriptive Statistical Analysis. Frequency counts and percentage distributions are employed to summarize and present the categorical demographic profile of TLE teacher respondents, providing a clear portrait of the teaching workforce in terms of age distribution, sex composition, and years of teaching experience. The weighted mean is computed for each indicator of school leadership support and instructional challenges, accompanied by descriptive interpretation using a five-point Likert scale range (1.00–1.80 = Very Low; 1.81–2.60 = Low; 2.61–3.40 = Moderate; 3.41–4.20 = High; 4.21–5.00 = Very High). This analysis identifies which dimensions of leadership support are perceived as strengths and which instructional challenges are most acute, providing empirical basis for prioritizing interventions in the action plan.

Inferential Statistical Analysis: Differences. Analysis of Variance (ANOVA) is employed to determine whether significant differences exist in perceptions of school leadership support and instructional challenges when teachers are grouped according to demographic profile. This analysis tests two null hypotheses: that there is no significant difference between demographic profile and leadership support, and that there is no significant difference between demographic profile and instructional challenges. The F-statistic and corresponding p-value are computed, with significance determined at $\alpha = .05$. This analysis reveals whether leadership support is perceived equitably across teacher subgroups or whether certain groups—such as novice teachers, female teachers, or those in specific age brackets—report systematically different experiences that warrant targeted, differentiated interventions.

Inferential Statistical Analysis: Relationship. Pearson product-moment correlation coefficient (Pearson r) is computed to determine the nature, strength, and direction of the relationship between school leadership support and instructional challenges. This analysis tests the alternative hypothesis that there is a significant relationship between instructional challenges encountered by TLE teachers and the school leadership support extended to them. The correlation coefficient (r) indicates both the magnitude and direction of the relationship, with values ranging from -1.00 (perfect negative correlation) to +1.00 (perfect positive correlation). This analysis is crucial for understanding whether increased leadership support is associated with reduced instructional challenges (negative correlation), whether support intensifies in response to challenges (positive correlation), or whether the two variables operate independently (near-zero correlation).

The final stage of the process involves the systematic interpretation of statistical outputs within the context of the study's theoretical framework and the extant body of literature. Numerical findings are translated into meaningful substantive conclusions. Mean scores are interpreted not merely as mathematical averages but as indicators of perceived leadership effectiveness and challenge severity. ANOVA results are examined not simply as p-values but as evidence regarding the equity and differentiation of current support systems. Correlation coefficients are analyzed not just as statistical relationships but as reflections of the dynamic, responsive interaction between school leaders and TLE teachers. This interpretive phase integrates empirical findings with theoretical explanations from Instructional Leadership Theory and corroborating evidence from related studies, transforming raw statistical outputs into coherent, evidence-based narratives about the state of TLE leadership support and instructional challenges in San Carlos City Division.

OUTPUT

The Output represents the culminating product of the entire research endeavor—the transformation of empirical evidence, theoretical grounding, and contextual understanding into a practical,

actionable, and sustainable School Leadership Support Action Plan. This output is not merely a list of recommendations appended to the study but a carefully crafted, systematically structured intervention blueprint designed to directly address the specific gaps, weaknesses, and opportunities identified through the rigorous analysis of input data and the systematic processing of that data through statistical procedures.

The Action Plan is empirically grounded in the specific findings of the study. It does not offer generic, one-size-fits-all recommendations but precisely targeted interventions calibrated to the unique needs, strengths, and constraints of TLE teachers and school leaders in San Carlos City Division. The Very High ratings for classroom monitoring and performance feedback inform the decision to strengthen and systematize existing supervisory practices rather than overhaul them. The High but relatively weaker rating for provision of resources, particularly equipment maintenance and repair, directly informs the prioritization of resource governance and maintenance systems. The Very High challenge rating for teachers creating their own materials due to unavailability informs the development of collaborative material development and sharing mechanisms. The significant challenge of insufficient instructional time for curriculum delivery informs advocacy targets and scheduling interventions. The strong positive correlation between leadership support and instructional challenges informs the Action Plan's emphasis on proactive, preventative leadership rather than reactive, crisis-driven support. Every activity, indicator, timeline, and resource allocation in the Action Plan traces its origin directly to a specific empirical finding from the study.

The Action Plan is organized into a comprehensive matrix format with several integrated components. The Strategic Objectives articulate the overarching goals derived from the study's conclusions, organized around four priority areas: strengthening resource management and facility maintenance systems; enhancing the relevance, accessibility, and differentiation of professional development; optimizing curriculum implementation through time management and scheduling advocacy; and institutionalizing supportive, developmental supervision and feedback systems. Key Activities translate each objective into concrete, specific, actionable interventions with clearly defined steps and deliverables. Success Indicators establish measurable, observable criteria for determining whether each activity has been successfully implemented and whether it has achieved its intended effect. Timelines provide realistic schedules for implementation, phased over four quarters to ensure systematic, manageable execution rather than fragmented, rushed compliance. Responsible Persons identify specific leadership actors—principals, department heads, master teachers, division supervisors, teacher leaders—accountable for each activity, operationalizing distributed leadership principles.

| INPUT | PROCESS | OUTPUT |
|---|---|---|
| <p>Demographic Profile of TLE Teachers in Terms of:</p> <ul style="list-style-type: none"> a) Age b) Sex, and c) Years of teaching experience | <p>Data Collection</p> <ul style="list-style-type: none"> a) distribution of survey b) collection of responses c) validation of data <p>Statistical Treatment</p> <ul style="list-style-type: none"> a) Frequency and Percentage b) (teachers' profile) c) weighted mean (school leadership support and instructional | <p>School Leadership Support Action Plan</p> |
| <p>School Leadership Support in Terms of:</p> <ul style="list-style-type: none"> a) Provision of resources b) Professional | | |

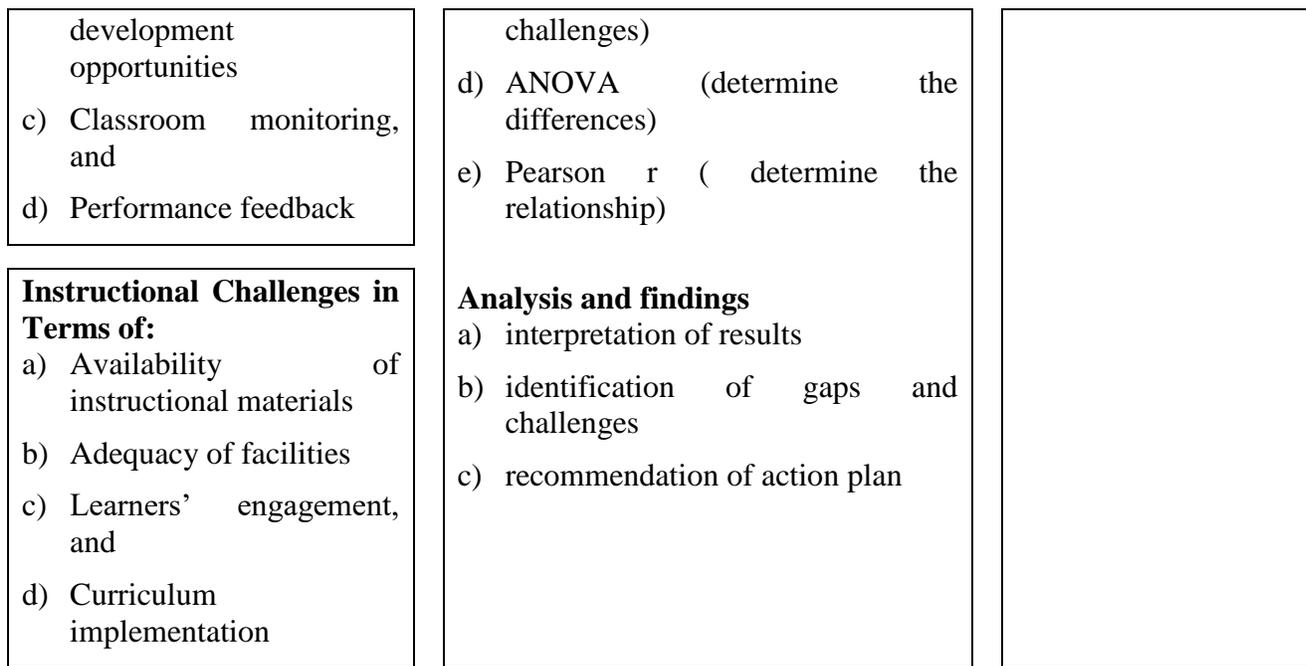


Figure 1. Conceptual Framework

The framework identifies the teachers' demographic profile, including age, sex, and years of teaching experience, together with specific forms of school leadership support such as resource provision, professional development opportunities, classroom monitoring, and feedback, as the key input variables. The process involves gathering data from TLE teachers through survey questionnaires and analyzing the results using descriptive and inferential statistics, including mean, ANOVA, and Pearson r, to describe leadership support and instructional challenges, determine differences based on teacher profile, and examine their relationship. It also includes the level of instructional challenges faced by TLE teachers in terms of instructional materials, facilities, learner engagement, and curriculum implementation. The output is a proposed School Leadership Support Action Plan for San Carlos City Division. In the framework, school leadership support is assumed to directly influence the extent of instructional challenges, with stronger and more consistent support expected to lessen these difficulties.

Statement of the Problem

This study aimed to determine the extent of school leadership support extended to TLE teachers in addressing instructional challenges in secondary schools in the San Carlos City Division during the School Year 2025–2026. The findings served as the basis for a proposed action plan to strengthen support mechanisms for TLE instruction.

Specifically, the study sought to answer the following questions:

1. What is the demographic profile of TLE teachers in terms of:
 - a) age;
 - b) sex; and
 - c) years of teaching experience?
2. What forms of school leadership support are extended to TLE teachers in terms of:
 - d) provision of resources;
 - e) professional development opportunities;

- f) classroom monitoring; and
 - g) performance feedback?
3. What are the instructional challenges encountered by TLE teachers in terms of:
 - a) availability of instructional materials;
 - b) adequacy of facilities;
 - c) learners' engagement; and
 - d) curriculum implementation?
 4. Is there a significant difference between the demographic profile of TLE teachers and the school leadership support provided to them?
 5. Is there a significant difference between the demographic profile of TLE teachers and the instructional challenges they encounter?
 6. Is there a significant relationship between the school leadership support extended to TLE teachers and the instructional challenges they encounter?
 7. What action plan may be recommended to strengthen school leadership support for TLE teachers in secondary schools?

Hypotheses

H₀₁: There is no significant difference between the demographic profile of TLE teachers and the school leadership support provided to them.

H₀₂: There is no significant difference between the demographic profile of TLE teachers and the instructional challenges they encounter.

H_a: There is a significant relationship between the instructional challenges encountered by TLE teachers and the school leadership support extended to them.

Significance of the Study

The findings of this study were useful and beneficial to the following:

TLE Teachers: Provide evidence-based insights into the specific difficulties they face while teaching competencies that require practical application.

Administrators and School Heads: Identify the specific support needs of TLE teachers, enabling them to create responsive policies, allocate sufficient budgets, and implement programs to improve instructional delivery.

Supervisors: Guide the development of targeted technical assistance and supervisory programs that address actual instructional challenges, ensuring more relevant and effective support.

Department of Education (DepEd): Provide insights that can inform policy enhancements related to TLE resources, teacher training, and program implementation under the K–12 curriculum.

Students: Indirectly benefit learners by helping improve the quality of TLE instruction they receive.

Future Researchers: Serve as a reference for further investigations on administrative and supervisory support for TLE teachers, contributing to the continuous improvement of teaching and learning in technical-vocational education.

Scope of the Study

This study examined the extent of school leadership support provided to Technology and Livelihood Education (TLE) teachers and the instructional challenges they encountered during the School Year 2025–2026. The research focused on TLE teachers from two selected public secondary schools in San Carlos City Division—Julio Ledesma National High School and Quezon National High School—employing total enumeration of the 45 TLE teacher-respondents.

The study specifically investigated: (1) the demographic profile of TLE teachers in terms of age, sex, and years of teaching experience; (2) the extent of school leadership support across four domains—provision of resources, professional development opportunities, classroom monitoring, and performance feedback; and (3) the level of instructional challenges encountered in four areas—availability of instructional materials, adequacy of facilities and equipment, learners' engagement, and curriculum implementation. Additionally, the study examined significant differences in leadership support and instructional challenges when grouped according to demographic profile, as well as the relationship between leadership support and instructional challenges. Based on the findings, a School Leadership Support Action Plan was developed to strengthen support mechanisms for TLE teachers.

The study was limited to the two selected public secondary schools in San Carlos City; thus, findings may not fully represent the experiences of TLE teachers in other schools within the division or in different geographical locations. The research focused solely on the specified variables as measured by the researcher-made survey questionnaire, excluding other possible factors such as personal teacher attributes, or alternative leadership styles that may influence teaching experiences. Data gathered were based on self-reported responses, which may be subject to personal bias, social desirability, or varying levels of respondent honesty. Furthermore, the research did not employ classroom observations, interviews, or document analysis, which could have provided deeper qualitative insights. Consequently, the conclusions drawn were limited to the quantitative data collected during the School Year 2025–2026.

Definition of Terms

For a better understanding of the study, the following terms are operationally defined according to the variables and their indicators:

Age. Refers to the chronological age range of the TLE teacher-respondents, categorized as: 20–29, 30–39, 40–49, 50–59, and 60 years and above.

Adequacy of Facilities. Refers to the sufficiency, functionality, and condition of physical and infrastructural resources such as laboratories, workshops, tools, machinery, computers, and specialized rooms used in TLE instruction. This includes whether facilities meet required standards, whether equipment is functional and well-maintained, whether workspaces are conducive to hands-on learning, and whether there is timely access to needed equipment and facilities during lessons.

Availability of Instructional Materials. Refers to the accessibility, currency, and adequacy of textbooks, modules, teaching guides, visual aids, digital resources, and other learning tools used by TLE teachers. This includes the consistency of material availability before lessons, alignment with curriculum competencies, support received in developing or accessing materials, and the extent to which teachers create their own materials due to unavailability.

Classroom Monitoring. Refers to the systematic process by which school leaders observe, supervise, and evaluate TLE teachers' instructional practices through classroom visits, observations, and walkthroughs conducted at least once per grading period. This includes providing timely, actionable feedback and guidance based on observations to enhance teaching performance.

Curriculum Implementation. Refers to the process of executing the prescribed TLE curriculum in the classroom, including lesson delivery, use of instructional strategies, and assessment practices. This includes the clarity and ease of implementing the curriculum, achievability of competencies given school resources, sufficiency of time allocation for full curriculum delivery, integration of real-life skills and applications, and the support and guidance provided for effective curriculum implementation.

Instructional Challenges. Refers to the difficulties, obstacles, and constraints encountered by TLE teachers in delivering effective, competency-based, hands-on instruction. This variable is measured through four indicators:

Learners' Engagement. Refers to the degree to which students actively participate, show interest, collaborate, demonstrate motivation, and seek clarification during TLE hands-on activities, projects, discussions, and practical tasks. This indicator measures student engagement as a factor influencing the effectiveness of TLE instruction.

Sex. Refers to the biological classification of the TLE teacher-respondents, categorized as male or female.

School Leadership Support. Refers to the assistance, guidance, and resources provided by school administrators, principals, and heads to TLE teachers to enhance instructional delivery. This variable is measured through four indicators:

Performance Feedback. Refers to the constructive and timely evaluations provided by school leaders based on classroom observations, performance reviews, and assessment tools. This includes specific, actionable recommendations; recognition of teacher strengths and accomplishments; and feedback that teachers can utilize to set professional growth goals and improve instructional effectiveness.

Professional Development Opportunities. Refers to the structured and unstructured learning activities provided or supported by school leaders to enhance TLE teachers' pedagogical and technical skills. These include seminars, workshops, in-service training, coaching, mentoring, peer learning sessions, and knowledge-sharing initiatives that are accessible, relevant, and aligned with teachers' subject areas and current TLE trends.

Provision of Resources. Refers to the extent to which school leaders allocate budget, supplies, instructional materials, tools, and equipment necessary for TLE instruction, including timely procurement, equitable distribution, and maintenance or replacement of damaged learning tools.

Years of Teaching Experience. Refers to the length of service of TLE teacher-respondents in the teaching profession, categorized as: 1–5 years, 6–10 years, 11–15 years, 16–20 years, and more than 20 years.

Chapter 2

METHODOLOGY

Research Design

This study employed a quantitative, non-experimental, descriptive-correlational-comparative research design. This integrated design was systematically selected to align with the study's multiple research objectives: to describe the extent of school leadership support and instructional challenges, to compare these variables across teacher demographic subgroups, and to examine the relationship between leadership support and instructional challenges.

Descriptive Component. The descriptive aspect aimed to determine the extent of school leadership support provided to TLE teachers across four domains (provision of resources, professional

development opportunities, classroom monitoring, and performance feedback) and the level of instructional challenges they encounter across four areas (availability of instructional materials, adequacy of facilities, learners' engagement, and curriculum implementation). This component utilized weighted means and frequency distributions to provide a comprehensive portrait of the current state of TLE instruction and leadership support in the selected schools.

Comparative Component. The comparative aspect examined whether significant differences existed in perceptions of school leadership support and instructional challenges when TLE teachers were grouped according to demographic profile (age, sex, and years of teaching experience). Analysis of Variance (ANOVA) was employed to determine if these demographic factors influenced how teachers perceived both the support they received and the challenges they faced. This component addressed the equity and differentiation of current support systems.

Correlational Component. The correlational aspect assessed the nature, strength, and direction of the relationship between school leadership support and instructional challenges using the Pearson product-moment correlation coefficient (Pearson r). This component tested the hypothesis that a significant relationship exists between the support extended by school leaders and the instructional difficulties encountered by TLE teachers.

The results of these three integrated analyses served as the empirical foundation for formulating a proposed School Leadership Support Action Plan to strengthen leadership mechanisms and mitigate instructional challenges for TLE teachers.

The selection of the descriptive-correlational-comparative research design is firmly grounded in contemporary educational research methodology, with multiple studies published from 2021 to the present employing and validating this integrated approach.

Philippine-Based Precedent. Tindowen, Mendez, and Parallag (2022) employed a descriptive-correlational-comparative design to investigate the use of interactive multimedia and academic performance of students at the University of Saint Louis, Philippines. Their study successfully integrated all three analytical purposes: description of current multimedia utilization levels, comparison of usage patterns across student subgroups (sex, year level, academic program), and correlation between multimedia use and academic achievement. This Philippine-based study serves as a direct methodological model for the present research, demonstrating the viability and scholarly acceptance of the integrated three-component design within the Philippine educational research context.

Similarly, Pamittan (2025) conducted a descriptive-comparative study examining the implementation of the multigrade program in the Southern and Northern districts of Conner, Division of Apayao, Philippines. The study gathered data from 44 teachers, 368 pupils, and 353 parents across 19 multigrade elementary schools, comparing pupil performance, teacher training adequacy, and stakeholder perceptions between districts. This study provides direct regional relevance, demonstrating how comparative design effectively identifies both equitable outcomes and systemic implementation gaps across comparable educational contexts.

Respondents of the Study

The respondents of this study were TLE teachers from selected secondary schools in San Carlos City, Negros Occidental. Given the manageable number of TLE teachers in the area, total enumeration was employed to include the entire target population, thereby ensuring full population representation and eliminating sampling error. Participation in the study was voluntary, and informed consent was obtained from all participants. To protect participant privacy, anonymity and confidentiality of responses were strictly maintained throughout the research process; no personally identifiable information was collected, and all responses were coded accordingly.

Table 1: Distribution of Respondents

| Respondents | No. of Respondents | Percentage |
|------------------------------------|---------------------------|-------------------|
| Julio Ledesma National High School | 25 | 55.66 |
| Quezon National High School | 20 | 44.44 |
| Total | 45 | 100 |

Research Instrument

The primary instrument used for data collection was a researcher-made survey questionnaire that underwent tests of reliability and validity. The first part of the instrument determined the demographic profile of the respondents. The second part examined the school leadership support provided to TLE teachers in terms provision of resources, professional development, classroom mentoring, and performance feedback. The last part focused on the instructional challenges faced by TLE teachers in teaching TLE subjects.

To establish validity, the questionnaire was validated by three experts in the field of education using the Good and Scates method. The validated questionnaire received a score of 4.81, interpreted as highly valid. The reliability test was conducted using Cronbach's Alpha with 30 TLE teachers who were not part of the actual respondents. The obtained alpha score was 0.949, indicating high internal consistency.

Data Collection Procedure

Prior to distributing the questionnaire, the researcher secured formal permission from the Schools Division Superintendent (SDS), the Public Schools District Supervisor (PSDS), and the principals of the selected secondary schools. Upon approval, an informed consent form was given to the respondents. The validated instrument was then personally administered. The purpose of the study was clearly explained, and respondents were reminded of their rights to anonymity, voluntary participation, and data confidentiality. After a reasonable period, the completed questionnaires were collected, verified for completeness and accuracy, and encoded for statistical analysis.

Data Analysis Procedure

The collected data were analyzed using statistical tools aligned with the study's objectives. Frequency counts and percentage distribution were used to summarize the demographic profile of the TLE teacher respondents. The weighted mean and its descriptive equivalent were employed to determine the extent of school leadership support and the degree of instructional challenges encountered. To examine differences across respondents' demographic characteristics, Analysis of Variance (ANOVA) was applied. Finally, the Pearson correlation coefficient was used to determine the relationship between school leadership support and instructional challenges among TLE teachers.

Statistical Treatment

The collected data were analyzed using appropriate statistical tools aligned with the research objectives.

SOP1. Frequency and percentage distribution were employed to summarize and present the categorical demographic profile of the TLE teacher respondents.

Percentage Distribution

The percentage is computed using the formula:

$$\text{Percentage (\%)} = fN \times 100$$

Where:

- f = frequency (number of respondents in a category)
- N = total number of cases
- 100 = constant to convert to percentage

SOP 2&3: The weighted mean and its corresponding descriptive equivalent were employed to determine the extent of school leadership support and the degree of instructional challenges encountered by teachers. The weighted mean was calculated using the formula

Weighted Mean Formula

$$\text{Weighted Mean (WM)} = \frac{\sum fx}{\sum f}$$

Where:

- f = frequency of responses
- x = weight assigned to each response (e.g., Likert scale value)
- $\sum f$ = total number of responses

SOP4 &5: The Analysis of Variance (ANOVA) was used to determine the differences in school leadership support and instructional challenges when grouped according to the respondents' demographic profile

ANOVA Formula

$$F = \frac{MS_{\text{between}}}{MS_{\text{within}}}$$

Where:

$$MS_{\text{between}} = \frac{SS_{\text{between}}}{df_{\text{between}}}, MS_{\text{within}} = \frac{SS_{\text{within}}}{df_{\text{within}}}, SS_{\text{between}} = \sum_{i=1}^k n_i (\bar{X}_i - \bar{X}_G)^2, SS_{\text{within}} = \sum_{i=1}^k \sum_{j=1}^{n_i} (X_{ij} - \bar{X}_i)^2, df_{\text{between}} = k - 1, df_{\text{within}} = N - k$$

Where:

F = ANOVA test statistic

MS_{between} = Mean Square Between Groups

MS_{within} = Mean Square Within Groups

SS_{between} = Sum of Squares Between Groups

SS_{within} = Sum of Squares Within Groups

df_{between} = Degrees of Freedom Between Groups

df_{within} = Degrees of Freedom Within Groups

n_i = Number of respondents in group i

X_{ij} = Observation j in group i

\bar{X}_i = Mean of group i

\bar{X}_G = Overall (grand) mean

k = Number of groups

N = Total number of respondents

SOP6: The Pearson correlation coefficient (r) was used to determine the relationship between school leadership support and instructional challenges of TLE teachers, where r is computed using the formula.

Pearson Correlation Coefficient (r) Formula

$$r = \frac{n\sum XY - (\sum X)(\sum Y)}{\sqrt{[n\sum X^2 - (\sum X)^2] \cdot [n\sum Y^2 - (\sum Y)^2]}}$$

Where:

r = Pearson correlation coefficient

X = scores for school leadership support

Y = scores for instructional challenges

n = number of cases

$\sum XY$ = sum of the product of paired scores

$\sum X$ = sum of X scores

$\sum Y$ = sum of Y scores

$\sum X^2$ = sum of squares of X scores

$\sum Y^2$ = sum of squares of Y scores

Ethical Considerations

Informed Consent. All participants were fully informed regarding the study's purpose, procedures, and academic intent. Written informed consent was obtained from each participant to affirm their voluntary involvement in the research.

Confidentiality. To protect participant privacy, all personal identifiers were replaced with anonymous codes. Data collection, storage, and handling strictly complied with the Data Privacy Act of 2012 (Republic Act 10173), ensuring that no identifiable information was disclosed.

Voluntary Participation. Participation in the study was entirely voluntary. Respondents retained the right to skip any question or withdraw from the research at any point without penalty or consequence.

Data Protection. All physical and electronic data were stored securely, with access restricted solely to the researcher. Following analysis, all records were disposed of in accordance with data protection guidelines to prevent unauthorized access or use.

Risk Mitigation. The study posed no physical risks to participants. Any potential psychological or emotional discomfort was minimized by allowing respondents to omit sensitive questions or discontinue their participation at their discretion.

Chapter 3

RESULTS AND DISCUSSIONS

This section presents the results of the study and provides an in-dept discussion of the findings. The discussion is structured according to the research objectives, emphasizing significant patterns, relationships, and variations in school leadership support and instructional challenges among TLE teachers.

DEMOGRAPHICS OF THE RESPONDENTS

Table 2 Age Distribution of TLE Teacher Respondents (N=45)

| Age Group | Frequency (f) | Percentage (%) |
|--------------|---------------|----------------|
| 20–29 | 5 | 11.11 |
| 30–39 | 24 | 53.33 |
| 40–49 | 12 | 26.67 |
| 50–59 | 3 | 6.67 |
| 60 and above | 1 | 2.22 |
| Total | 45 | 100.00 |

Table 2 presents the age distribution of the TLE teacher respondents, revealing a predominantly mid-career workforce. The majority of teachers, 53.33% (n=24), are between 30–39 years old, followed by 26.67% (n=12) in the 40–49 age bracket. Together, these groups comprise approximately 80% of the sample, indicating a mature, experienced teaching cohort within the TLE departments of the surveyed schools.

This demographic profile aligns with broader trends in Philippine public education, where mid-career teachers often form the backbone of the teaching force (DepEd, 2022). The concentration of teachers in the 30–49 age range may reflect career stability and accumulated experience, which are crucial for delivering competency-based, hands-on TLE instruction. Studies such as those by Li et al. (2023) and Ventista and Brown (2023) emphasize that mid-career teachers benefit significantly from structured professional development and instructional leadership support, as they are often positioned to mentor newer colleagues while continuing to refine their own pedagogical and technical skills.

However, the relatively small proportion of teachers aged 20–29 (11.11%) suggests a potential gap in early-career recruitment within TLE specializations. This finding resonates with research by Demapendan (2024), who noted challenges in attracting and retaining early-career TLE teachers, often due to resource limitations, assignment mismatches, and opportunities in industry. Similarly, the minimal representation of teachers aged 50 and above (8.89% combined) may reflect impending retirements or a generational shift in vocational education, a trend also observed in studies by Pamor et al. (2024), who highlighted the need for succession planning and knowledge transfer in TLE programs.

From an instructional leadership perspective, the age distribution has implications for targeted support strategies. Older, experienced teachers may require different forms of professional development, such as curriculum leadership roles or technology integration training, compared to their younger counterparts, who may need more pedagogical mentoring and resource support (Kim & Lee, 2020). School leaders should therefore consider differentiated support mechanisms that address the diverse needs and career stages of TLE teachers, as suggested by the Instructional Leadership Theory (Hallinger & Murphy, 1985), which underscores the role of leaders in fostering teacher growth across professional life stages.

Table 3. Sex Distribution of TLE Teacher Respondents (N=45)

| Sex | Frequency (f) | Percentage (%) |
|--------------|---------------|----------------|
| Male | 15 | 33.33 |
| Female | 30 | 66.67 |
| Total | 45 | 100.00 |

Table 3 displays the sex distribution of the TLE teacher respondents, indicating a notable gender disparity within the teaching cohort. The data show that female teachers constitute the majority,

representing 66.67% (n=30) of the sample, while male teachers account for 33.33% (n=15). This distribution reflects a female-dominated teaching workforce in the TLE programs of the surveyed secondary schools, which is consistent with broader trends in Philippine basic education where female educators are often overrepresented, particularly in Home Economics and other TLE specializations traditionally associated with caregiving and domestic skills (DepEd, 2022).

This gender composition may influence both the delivery of TLE instruction and the types of support required from school leaders. Female teachers, who are predominant in this sample, often face dual roles as educators and primary caregivers, which can contribute to increased workload and stress, potentially affecting instructional delivery (Barcelona et al., 2023). Additionally, TLE fields such as Industrial Arts, Agri-Fishery, and ICT—which are often perceived as male-dominated—may experience gender-based assignment imbalances, leading to potential mismatches between teacher specialization and assigned subjects. This aligns with findings by Demapendan (2024), who highlighted that TLE teachers assigned outside their field of expertise, regardless of gender, struggle with curriculum implementation and resource adaptation.

From a leadership and support perspective, the gender distribution warrants attention to equitable professional development and resource allocation. Kim and Lee (2020) noted that instructional leadership practices, such as mentoring and coaching, should be sensitive to teachers' diverse backgrounds and roles. Moreover, female teachers may benefit from targeted support in technical skill development, especially in specializations where they are underrepresented, to ensure confidence and competence in hands-on instruction (Dordas & Accad, 2022). The predominance of female teachers also underscores the importance of gender-responsive leadership that acknowledges and addresses the distinct challenges and contributions of both male and female educators within the TLE learning area.

Table 4. Years of Teaching Experience of TLE Teacher Respondents (N=45)

| Years of Experience | Frequency (f) | Percentage (%) |
|----------------------------|----------------------|-----------------------|
| 1–5 years | 12 | 26.67 |
| 6–10 years | 19 | 42.22 |
| 11–15 years | 10 | 22.22 |
| 16–20 years | 0 | 0.00 |
| More than 20 years | 4 | 8.89 |
| Total | 45 | 100.00 |

Table 4 presents the distribution of TLE teacher respondents according to their years of teaching experience. The data reveal a teaching force characterized by considerable classroom experience, with the largest proportion of teachers (42.22%, n = 19) falling within the 6–10 years range. This is followed by those with 1–5 years of experience (26.67%, n = 12) and 11–15 years (22.22%, n = 10). Notably, there are no respondents in the 16–20 year bracket, while a small but seasoned group (8.89%, n = 4) possesses over 20 years of teaching experience. This distribution indicates a cohort that is largely early- to mid-career, with a significant presence of teachers who have moved beyond initial induction but may not yet be considered veteran educators.

This experience profile carries important implications for instructional leadership and professional support. Teachers with 6–15 years of experience often represent a critical group for sustaining instructional quality and mentoring newer colleagues. Research by Ventista and Brown (2023) emphasizes that teachers in this mid-experience range benefit most from continuous, job-embedded professional development—such as coaching, peer observation, and curriculum co-design—which can directly enhance their instructional effectiveness. However, the absence of teachers with 16–20 years of experience may signal a generational gap or attrition trend, potentially related to burnout,

career shifts, or promotions out of the classroom, a concern noted in studies on teacher retention in technical-vocational fields (Pamor et al., 2024).

The substantial number of teachers with 1–5 years of experience (26.67%) highlights the presence of early-career educators who may require differentiated support in areas such as classroom management, resource improvisation, and hands-on skill facilitation. Barcelona et al. (2023) found that novice TLE teachers often struggle with translating curriculum into practical learning experiences, especially when resources are limited. In line with Instructional Leadership Theory (Hallinger & Murphy, 1985), school leaders should prioritize targeted mentoring, resource allocation, and constructive feedback for this group to build their confidence and instructional capacity.

Meanwhile, the small cadre of highly experienced teachers (over 20 years) represents a valuable resource for informal leadership, mentorship, and institutional memory. Yet, as Dordas and Accad (2022) cautioned, experienced TLE teachers may also face challenges in keeping pace with technological advancements and pedagogical shifts without ongoing, relevant training. Leadership support should therefore leverage their expertise while ensuring they remain engaged in professional learning communities.

Overall, the experience distribution suggests a diverse but relatively young teaching workforce with varied developmental needs. Effective school leadership must adopt a differentiated approach to teacher support, aligning professional development, resource provision, and supervisory practices with teachers’ career stages—a recommendation strongly supported by the literature on instructional leadership and teacher professional growth (Kim & Lee, 2020; Li et al., 2023).

SCHOOL LEADERSHIP SUPPORT

Table 5. Teachers’ Perceptions of School Leadership Support in Terms of Provision of Resources

| Statement | SA 5 | A 4 | N 3 | D 2 | SD 1 | WM | I |
|---|---------|--------|--------|--------|---------|-------------|-------------|
| Supplies and materials are available within required time | 11 | 20 | 8 | 6 | 0 | 3.80 | High |
| Instructional materials are distributed equitably across levels | 13 | 16 | 9 | 7 | 0 | 3.78 | High |
| Procurement of resources is done in a timely manner | 14 | 15 | 8 | 7 | 1 | 3.76 | High |
| Allocates a budget that meets TLE instruction requirements | 11 | 19 | 9 | 4 | 2 | 3.73 | High |
| Learning tools and equipment are replaced/repared when damaged | 12 | 14 | 12 | 5 | 2 | 3.64 | High |
| Over-all Perceptions on Provision of Resources | | | | | | 3.74 | High |
| <i>WM = Weighted Mean; I = Interpretation</i> | | | | | | | |
| <i>SA-Strongly Agree; A-Agree; N-Neutral; D-Disagree; DA-Strongly Disagree</i> | | | | | | | |
| <i>Mean Range-Interpretation: 1.00-1.80(Very Low); 1.81-2.60(Low); 2.61-3.40(Moderate); 3.41-4.20(High); 4.21-5.00(Very High)</i> | | | | | | | |

Table 5 presents TLE teachers’ perceptions of school leadership support in terms of provision of resources. The overall weighted mean for this domain is 3.74, interpreted as High, indicating that, on average, teachers view their school leaders as providing substantial resource support. Among the five indicators, the highest-rated statement is “Supplies and materials are available within the

required time frame for lessons” (WM = 3.80), followed closely by “Instructional materials are distributed equitably across grade levels and sections” (WM = 3.78) and “Procurement of resources is done in a timely manner” (WM = 3.76). The lowest-rated item, though still within the High range, is “Learning tools and equipment are replaced or repaired when damaged” (WM = 3.64). This suggests that while logistical and budgetary support is generally perceived positively, maintenance and sustainability of tools and equipment present a relative area of concern.

These findings align with studies highlighting the central role of resource provision in instructional leadership. According to Hallinger and Murphy’s (1985) Instructional Leadership Theory, effective leaders ensure that necessary materials, budgets, and facilities are available to support teaching and learning. The generally high ratings in this study reflect that school leaders in the surveyed institutions are, to a notable degree, fulfilling this aspect of their leadership role.

However, the slightly lower rating for equipment repair and replacement resonates with broader challenges documented in Philippine TLE contexts. Studies such as those by Barcelona et al. (2023) and Rosal (2024) have noted that while basic materials may be procured, the ongoing maintenance, upgrading, and timely repair of specialized tools and machinery remain persistent gaps. These logistical shortcomings can directly affect the authenticity of assessments and the quality of skills training—a concern underscored by Dordas and Accad (2022), who emphasized that inadequate tools hinder the development of industry-relevant competencies.

Moreover, the reported equity in resource distribution across grade levels and sections (WM = 3.78) suggests a conscious effort by school leaders to promote fair access, which is essential for minimizing instructional disparities. This aligns with the principles of distributed leadership discussed by Amzat (2022), where resource allocation is handled transparently and inclusively to support all teachers and learners equitably.

Nevertheless, despite the overall positive perception, it is important to note that the ratings, while “High,” are not in the “Very High” range (4.21–5.00). This indicates room for improvement, particularly in ensuring that budget alignment with TLE needs is consistently met and that responsive systems for equipment maintenance are institutionalized. As Kim and Lee (2020) argued, sustained instructional leadership requires not only initial provision but also ongoing monitoring and adaptive support to address emergent resource-related challenges.

Table 6. Teachers’ Perceptions of School Leadership Support in Terms of Professional Development Opportunities

| Statement | SA | A | N | D | SD | WM | I |
|---|----|----|----|---|----|-------------|-------------|
| | 5 | 4 | 3 | 2 | 1 | | |
| The school promotes sharing of knowledge gained from trainings and sessions. | 21 | 16 | 6 | 2 | 0 | 4.24 | Very High |
| Professional development programs are aligned with my teaching needs and subject areas. | 18 | 18 | 9 | 0 | 0 | 4.20 | High |
| The school supports me in enhancing my teaching skills. | 16 | 21 | 7 | 1 | 0 | 4.16 | High |
| I am given opportunities to attend seminars and training. | 17 | 19 | 7 | 2 | 0 | 4.13 | High |
| Training opportunities are accessible and relevant to current trends in TLE. | 14 | 17 | 12 | 2 | 0 | 3.93 | High |
| Over-all Perceptions on Professional Development Opportunities | | | | | | 4.14 | High |

| |
|--|
| <i>WM = Weighted Mean; I = Interpretation</i> |
| <i>SA-Strongly Agree; A-Agree; N-Neutral; D-Disagree; DA-Strongly Disagree</i> |
| <i>Mean Range-Interpretation: 1.00-1.80(Very Low); 1.81-2.60(Low);2.61-3.40(Moderate);3.41-4.20(High);4.21-5.00(Very High)</i> |

Table 6 presents TLE teachers' perceptions of school leadership support regarding professional development opportunities, with an overall weighted mean of 4.14, interpreted as High. This domain received the highest overall rating among the leadership support dimensions, indicating that teachers generally perceive their school leaders as strongly supportive in facilitating their professional growth.

The highest-rated indicator is "The school promotes sharing of knowledge gained from trainings and sessions" (WM = 4.24, Very High), followed closely by "Professional development programs are aligned with my teaching needs and subject areas" (WM = 4.20, High) and "The school supports me in enhancing my teaching skills" (WM = 4.16, High). These findings suggest that school leaders not only provide training access but also foster collaborative learning cultures and ensure relevance to teachers' actual instructional contexts.

The relatively lower (though still High) rating for "Training opportunities are accessible and relevant to current trends in TLE" (WM = 3.93) indicates some perceived gaps in ensuring that professional development remains current with evolving industry and pedagogical trends in technology and livelihood education.

These findings strongly align with current literature on instructional leadership and teacher development. The emphasis on knowledge sharing after training resonates with Dorukbaşı and Cansoy's (2024) findings that instructional leadership strengthens teacher practice not merely through training provision but through creating structures for collaborative reflection and application. Similarly, Ventista and Brown (2023) emphasized that the most impactful professional learning occurs when it is sustained, shared, and integrated into daily practice—precisely what the highest-rated item reflects.

The strong ratings for alignment of professional development with teaching needs (WM = 4.20) support Kim and Lee's (2020) research showing that teachers are more likely to engage in and benefit from professional development when it directly addresses their subject-specific challenges. This is particularly crucial for TLE teachers, who often teach specialized, hands-on competencies that require both pedagogical and technical updating.

However, the slightly lower rating for accessibility and relevance to current TLE trends (WM = 3.93) echoes concerns raised by Dordas and Accad (2022), who found that TLE teachers frequently lack training in emerging technical and vocational skills. This gap between available training and industry-relevant competencies may hinder teachers' ability to equip learners with contemporary workforce skills, as noted in studies by Barcelona et al. (2023) regarding TLE teachers' challenges in maintaining industry-aligned expertise.

From an instructional leadership perspective, these findings suggest that school leaders in the surveyed institutions are effectively performing the "developing people" function described in Hallinger and Murphy's (1985) Instructional Leadership Theory. By providing diverse development opportunities, promoting knowledge sharing, and ensuring program relevance, they are creating conditions for teacher growth that research consistently links to improved instructional quality.

The overall positive perception of professional development support also aligns with Li et al.'s (2023) finding that principals' supportive learning environments significantly impact teacher performance and sustainability in the profession. The emphasis on collaborative learning (item 3's Very High rating) particularly supports Amzat's (2022) observations about the importance of distributed leadership practices in fostering professional growth through shared expertise.

Table 7. Teachers' Perceptions of School Leadership Support in Terms of Classroom Monitoring

| Statement | SA 5 | A 4 | N 3 | D 2 | SD 1 | | | WM | I |
|---|---------|--------|--------|--------|---------|--|--|-------------|------------------|
| Classroom observations are conducted systematically and consistently. | 30 | 14 | 1 | 0 | 0 | | | 4.64 | Very High |
| School leaders conduct classroom visits at least once per grading period. | 27 | 17 | 1 | 0 | 0 | | | 4.58 | Very High |
| Feedback from classroom observations is provided within three days and includes actionable recommendations. | 25 | 19 | 1 | 0 | 0 | | | 4.53 | Very High |
| School leaders provide guidance based on observations to enhance teaching performance. | 21 | 22 | 1 | 1 | 0 | | | 4.40 | Very High |
| Classroom monitoring helps me identify areas for instructional improvement. | 22 | 20 | 2 | 0 | 1 | | | 4.38 | Very High |
| Over-all Perceptions on Classroom Monitoring | | | | | | | | 4.51 | Very High |

WM = Weighted Mean; I = Interpretation
SA-Strongly Agree; A-Agree; N-Neutral; D-Disagree; DA-Strongly Disagree
Mean Range-Interpretation: 1.00-1.80(Very Low); 1.81-2.60(Low); 2.61-3.40(Moderate); 3.41-4.20(High); 4.21-5.00(Very High)

Table 7 presents TLE teachers' perceptions of school leadership support in terms of classroom monitoring, achieving an overall weighted mean of 4.51, which falls within the Very High range. This is the highest-rated domain among all leadership support dimensions measured in the study, indicating exceptionally positive teacher perceptions of how school leaders conduct supervisory observations and provide instructional feedback.

All five indicators received Very High ratings, with the highest being "Classroom observations are conducted systematically and consistently" (WM = 4.64), followed closely by "School leaders conduct classroom visits at least once per grading period" (WM = 4.58) and "Feedback from classroom observations is provided within three days and includes actionable recommendations" (WM = 4.53). These findings suggest that school leaders not only maintain regular supervisory presence but also provide timely, constructive feedback that teachers find valuable for their professional growth.

The slightly lower (though still Very High) ratings for "Classroom monitoring helps me identify areas for instructional improvement" (WM = 4.38) and "School leaders provide guidance based on observations to enhance teaching performance" (WM = 4.40) suggest that while the monitoring

process itself is highly structured and frequent, its transformative impact on teaching practice may be perceived as somewhat less pronounced.

These findings align strongly with contemporary literature on instructional supervision. The systematic and consistent approach to classroom observations (highest rated item) reflects Hallinger and Murphy's (1985) emphasis on structured instructional leadership as foundational to improving teaching quality. The emphasis on actionable, timely feedback (WM = 4.53) resonates with Kim and Lee's (2020) research showing that specific, timely feedback is more impactful for teacher development than general or delayed commentary.

The overall Very High rating for classroom monitoring suggests that school leaders in the surveyed institutions are effectively performing the "supervising and evaluating instruction" function of instructional leadership. This is particularly significant given research by Ventista and Brown (2023), who found that structured observation and feedback cycles are among the most effective forms of professional learning when implemented with consistency and pedagogical focus.

However, the slightly lower ratings for monitoring's direct impact on instructional improvement (items 4 and 5) may reflect a subtle distinction between compliance-oriented supervision and developmental instructional leadership. As noted by Dorukbaşı and Cansoy (2024), the most effective instructional leadership goes beyond routine observation to foster genuine reflective practice and pedagogical growth. While teachers perceive the monitoring process as systematic and timely, they may experience somewhat less guidance in translating observations into concrete instructional enhancements.

This nuanced finding aligns with Amzat's (2022) research on distributed leadership in Jakarta schools, which highlighted that even well-structured supervisory systems may not automatically translate into teacher ownership of professional growth without intentional collaborative structures. The data suggest that while the mechanics of classroom monitoring are excellent (frequency, consistency, timeliness), there may be opportunities to strengthen the developmental dialogue that follows observations.

From a TLE-specific perspective, these findings are particularly encouraging given the hands-on, competency-based nature of TLE instruction. Effective classroom monitoring in TLE requires supervisors to understand both pedagogical principles and technical skills, making consistent, knowledgeable observation especially valuable. The high ratings suggest that school leaders are sufficiently engaged in TLE classrooms to provide relevant feedback, addressing concerns raised by Dordas and Accad (2022) about supervisors' sometimes limited understanding of technical-vocational teaching contexts.

Table 8. Teachers' Perceptions of School Leadership Support in Terms of Performance Feedback

| Statement | | | SA 5 | A 4 | N 3 | D 2 | | SD 1 | WM | I |
|--|----|----|---------|--------|--------|--------|---|---------|-----------|---|
| Feedback from evaluations is timely and specific. | 23 | 21 | | 1 | 0 | | 0 | 4.49 | Very High | |
| I use feedback from evaluations to set goals for my professional growth. | 25 | 18 | | 1 | 0 | | 1 | 4.47 | Very High | |
| My accomplishments and strengths are recognized and acknowledged during feedback sessions. | 22 | 20 | | 2 | 1 | | 0 | 4.40 | Very High | |
| I receive constructive feedback that helps me improve my teaching. | 20 | 22 | | 2 | 1 | | 0 | 4.36 | Very High | |

| | | | | | | | |
|---|----|----|---|---|---|------|-----------|
| Evaluation tools used are clear and aligned with my roles and responsibilities. | 21 | 20 | 3 | 1 | 0 | 4.36 | Very High |
| Over-all Perceptions on Performance Feedback | | | | | | 4.41 | Very High |

| | | | | | | | |
|---|--|--|--|--|--|--|--|
| <i>WM = Weighted Mean; I = Interpretation</i> | | | | | | | |
| <i>SA-Strongly Agree; A-Agree; N-Neutral; D-Disagree; DA-Strongly Disagree</i> | | | | | | | |
| <i>Mean Range-Interpretation: 1.00-1.80(Very Low); 1.81-2.60(Low); 2.61-3.40(Moderate); 3.41-4.20(High); 4.21-5.00(Very High)</i> | | | | | | | |

Table 8 presents TLE teachers' perceptions of school leadership support in terms of performance feedback, with an overall weighted mean of 4.41, falling within the Very High range. This domain represents the second highest-rated area of leadership support, indicating that teachers view the feedback they receive from school leaders as exceptionally valuable for their professional development.

The highest-rated indicator is "Feedback from evaluations is timely and specific" (WM = 4.49), followed closely by "I use feedback from evaluations to set goals for my professional growth" (WM = 4.47) and "My accomplishments and strengths are recognized and acknowledged during feedback sessions" (WM = 4.40). These findings suggest that school leaders not only provide feedback regularly but ensure it is actionable, goal-oriented, and affirming—qualities that research consistently links to effective instructional leadership.

These results align strongly with contemporary literature on feedback practices in educational leadership. The emphasis on timely and specific feedback (highest-rated item) directly supports Kim and Lee's (2020) findings that immediate, concrete feedback significantly enhances teacher participation in professional growth activities. This specificity is particularly crucial in TLE contexts, where feedback must address both pedagogical approaches and technical skill development—a challenge noted by Dordas and Accad (2022) in their study of TLE teacher competency needs.

The strong rating for using feedback to set professional goals (WM = 4.47) reflects the developmental orientation of the feedback process described in Hallinger and Murphy's (1985) Instructional Leadership Theory. Rather than serving merely as evaluative judgment, the feedback appears to function as a catalyst for professional growth planning—a distinction emphasized by Ventista and Brown (2023) in their systematic review of effective professional learning practices.

The emphasis on recognizing accomplishments and strengths (WM = 4.40) aligns with Amzat's (2022) research on distributed leadership, which highlighted how affirmative feedback builds teacher confidence and encourages risk-taking in instructional innovation. This balance between supportive recognition and constructive critique appears well-maintained in the surveyed schools, addressing concerns raised by Barcelona et al. (2023) about the sometimes overly critical nature of supervisory feedback in Philippine public schools.

The slightly lower (though still Very High) ratings for "I receive constructive feedback that helps me improve my teaching" and "Evaluation tools used are clear and aligned with my roles and responsibilities" (both WM = 4.36) suggest potential areas for refinement. While teachers perceive feedback as generally helpful, they may experience some ambiguity about evaluation criteria or specific application to TLE teaching contexts. This echoes findings by Demapendan (2024), who noted that TLE teachers sometimes receive generic feedback that doesn't fully address the specialized demands of hands-on, competency-based instruction.

From a TLE-specific perspective, these findings are particularly encouraging given the technical nature of the subject area. Effective feedback in TLE requires supervisors to understand both teaching methodologies and content-specific competencies. The high ratings suggest that school leaders are providing feedback that teachers find relevant to their actual instructional challenges—an important factor given Rosal's (2024) findings about the importance of context-appropriate assessment and feedback in TLE.

The overall Very High rating for performance feedback complements the similarly strong ratings for classroom monitoring (Table 6), suggesting a coherent supervisory system where observations are consistently followed by meaningful feedback. This alignment between monitoring and feedback reflects Dorukbaşı and Cansoy's (2024) emphasis on the integrated nature of effective instructional leadership practices.

Table 9. Summary of Weighted Means for School Leadership Support

| Variable /Indicator | Weighted Mean | Interpretation |
|--|---------------|------------------|
| Classroom Monitoring | 4.51 | Very High |
| Performance Feedback | 4.41 | Very High |
| Professional Development Opportunities | 4.14 | High |
| Provision of Resources | 3.74 | High |
| SCHOOL LEADERSHIP SUPPORT | 4.20 | High |

Mean Range-Interpretation: 1.00-1.80(Very Low); 1.81-2.60(Low);2.61-3.40(Moderate);3.41-4.20(High);4.21-5.00(Very High)

Table 9 presents the consolidated weighted means for the main variable which is the school leadership support. The overall weighted mean is 4.20 is interpreted as High, indicating that TLE teachers generally perceived favorable leadership support across all domains. Among the four indicators, Classroom Monitoring obtained the highest mean of 4.51(Very High) followed by the Performance Feedback with 4.41 (Very High) demonstrating that school leaders excel in supervisory and developmental functions. Professional Development Opportunities received a High rating of 4.14, while Provision of Resources obtained the lowest mean of 3.74 (High)suggesting that resource allocation and equipment maintenance remain areas needing improvement.

INSTRUCTIONAL CHALLENGES

Table 10. Teachers' Perceptions of Instructional Challenges in Terms of Availability of Instructional Materials

| Statement | SA 5 | A 4 | N 3 | D 2 | SD 1 | WM | I |
|--|---------|--------|--------|--------|---------|-------------|------------------|
| I create my own instructional materials due to unavailability. | 24 | 15 | 3 | 1 | 2 | 4.29 | Very High |
| Instructional materials are aligned with the curriculum and learning competencies. | 19 | 18 | 6 | 2 | 0 | 4.20 | High |
| Teaching modules and references are consistently available before lessons. | 16 | 18 | 8 | 3 | 0 | 4.04 | High |
| I receive support in developing or accessing instructional materials when needed. | 13 | 18 | 12 | 2 | 0 | 3.93 | High |
| Updated instructional materials are provided for my lessons. | 12 | 17 | 11 | 5 | 0 | 3.80 | High |
| Over-all Perceptions on Availability of Instructional Materials | | | | | | 4.05 | High |

| |
|--|
| <p><i>WM = Weighted Mean; I = Interpretation</i> <i>SA-Strongly Agree; A-Agree; N-Neutral; D-Disagree; DA-Strongly Disagree</i></p> |
| <p><i>Mean Range-Interpretation: 1.00-1.80(Very Low); 1.81-2.60(Low); 2.61-3.40(Moderate); 3.41-4.20(High); 4.21-5.00(Very High)</i></p> |

Table 10 presents TLE teachers' perceptions of instructional challenges related to availability of instructional materials, with an overall weighted mean of 4.05, interpreted as High. This indicates that TLE teachers experience moderate to significant challenges in accessing and utilizing instructional resources, with some areas presenting particular difficulties.

The most pronounced challenge is reflected in the Very High rating for "I create my own instructional materials due to unavailability" (WM = 4.29), indicating that a substantial majority of TLE teachers (86.66% combined Agree/Strongly Agree) must develop their own teaching resources due to insufficient provision. This finding aligns strongly with multiple studies in the Philippine TLE context. Barcelona et al. (2023) found that TLE teachers frequently use personal resources and initiative to compensate for institutional resource gaps, while Tingzon and Buyok (2022) documented how non-specialized TLE teachers often "learn as they teach," creating materials out of necessity rather than choice.

The High ratings for basic resource availability—"Teaching modules and references are consistently available before lessons" (WM = 4.04) and "Updated instructional materials are provided for my lessons" (WM = 3.80)—suggest that while foundational materials are generally accessible, their currency and timely distribution present ongoing challenges. This echo concerns raised by Rosal (2024), who noted that outdated or delayed materials compromise the authenticity of TLE assessments and practical activities.

Interestingly, teachers perceive strong alignment between available materials and curriculum competencies (WM = 4.20, High), suggesting that the quality of materials, when available, is generally appropriate. This finding contrasts somewhat with Dordas and Accad's (2022) observation that TLE materials sometimes lack industry relevance, but supports Cornelio and Villaroman's (2023) emphasis on curriculum alignment as a relative strength in TLE resource provision.

The moderate challenge level for "I receive support in developing or accessing instructional materials when needed" (WM = 3.93, High) suggests that while teachers acknowledge some institutional support, it may be insufficient or inconsistently available. This aligns with Subli's (2025) findings from Benguet schools, where TLE teachers reported limited systematic support for material development despite clear needs.

From an instructional leadership perspective, these findings highlight a critical gap in resource provision that aligns with Hallinger and Murphy's (1985) emphasis on resource allocation as a core leadership function. The high incidence of teacher-developed materials suggests that school leaders may be relying on teacher initiative rather than providing systematic resource systems—a concern noted by Pamor et al. (2024) in their phenomenological study of TLE teacher experiences.

The necessity for teachers to create their own materials also has implications for workload and instructional quality. As Ventista and Brown (2023) noted, when teachers spend excessive time on material development, they have less capacity for pedagogical refinement and student engagement. This trade-off may be particularly acute in TLE, where hands-on activities require specialized, often time-intensive resources.

Table 11. Teachers' Perceptions of Instructional Challenges in Terms of Adequacy of Facilities

| Statement | SA 5 | A 4 | N 3 | D 2 | SD 1 | WM | I |
|---|---------|--------|--------|--------|---------|-------------|-------------|
| There is timely access to needed equipment and facilities during lessons. | 7 | 21 | 15 | 2 | 0 | 3.73 | High |
| The equipment provided is functional and well-maintained. | 7 | 22 | 11 | 5 | 0 | 3.69 | High |
| Classroom and workspaces are conducive to hands-on learning activities. | 9 | 20 | 8 | 8 | 0 | 3.67 | High |
| Facilities meet the required standard for TLE instruction. | 9 | 14 | 18 | 4 | 0 | 3.62 | High |
| The school provides sufficient tools and equipment for TLE lessons. | 8 | 17 | 12 | 7 | 1 | 3.53 | High |
| Over-all Perceptions on Adequacy of Facilities | | | | | | 3.65 | High |

WM = Weighted Mean; I = Interpretation

SA-Strongly Agree; A-Agree; N-Neutral; D-Disagree; DA-Strongly Disagree

Mean Range-Interpretation: 1.00-1.80(Very Low); 1.81-2.60(Low); 2.61-3.40(Moderate); 3.41-4.20(High); 4.21-5.00(Very High)

Table 11 presents TLE teachers' perceptions of instructional challenges regarding adequacy of facilities, with an overall weighted mean of 3.65, interpreted as High. This indicates that teachers experience significant challenges with the physical resources, tools, and workspaces necessary for effective TLE instruction. Unlike previous tables where higher scores indicated positive perceptions, in this challenges context, higher scores reflect more severe obstacles.

The most substantial challenge identified is "There is timely access to needed equipment and facilities during lessons" (WM = 3.73, High), indicating that scheduling and availability issues frequently disrupt hands-on learning activities. This finding aligns directly with Subli's (2025) research in Benguet schools, which found that limited access time compromises TLE instructional quality, as teachers must compete for shared resources within constrained schedules.

Closely following are challenges related to equipment functionality and maintenance (WM = 3.69, High) and conducive workspaces for hands-on learning (WM = 3.67, High). These results echo Rosal's (2024) findings about how physical environment limitations affect the authenticity of TLE assessments, and Dordas and Accad's (2022) documentation of inadequate tool maintenance as a barrier to developing industry-relevant skills.

Interestingly, the item receiving the lowest challenge rating (though still High at WM = 3.53) is "The school provides sufficient tools and equipment for TLE lessons." This suggests that while basic provision exists, the quality, functionality, and accessibility of these resources present greater difficulties. This distinction supports Manlangit's (2025) observation that TLE challenges often involve not just quantity but quality and usability of facilities.

The challenge regarding facilities meeting required standards for TLE instruction (WM = 3.62, High) reflects ongoing concerns about compliance with competency-based education requirements. This aligns with DepEd's (2016) K-12 curriculum guidelines, which emphasize specialized facilities for effective TLE implementation, and Cornelio and Villaroman's (2023) findings that inadequate facilities hinder practical skill development.

From an instructional leadership perspective, these facility-related challenges highlight a critical area for administrative intervention. According to Hallinger and Murphy's (1985) Instructional Leadership Theory, ensuring adequate learning environments is a fundamental leadership

responsibility. The persistence of these challenges suggests that school leaders may need to prioritize facility upgrading, maintenance systems, and scheduling protocols more deliberately.

The findings also connect to broader systemic issues in Philippine technical-vocational education. Pamor et al. (2024) noted that TLE facilities often lag behind industry standards, creating a gap between school-based training and workplace requirements. Similarly, Barcelona et al. (2023) found that TLE teachers frequently compensate for facility limitations through personal resourcefulness, but this places additional burdens on already stretched educators.

Table 12. Teachers' Perceptions of Instructional Challenges in Terms of Learners' Engagement

| Statement | SA 5 | A 4 | N 3 | D 2 | SD 1 | WM | I |
|---|---------|--------|--------|--------|---------|-------------|------------------|
| Students' motivation influences the effectiveness of TLE instruction. | 23 | 20 | 2 | 0 | 0 | 4.47 | Very High |
| Students actively participate in hands-on TLE activities. | 21 | 20 | 4 | 0 | 0 | 4.38 | Very High |
| Students ask questions and seek clarification to improve their skills and understanding in TLE. | 21 | 21 | 2 | 1 | 0 | 4.38 | Very High |
| Learners collaborate effectively during group tasks and practical activities. | 20 | 22 | 3 | 0 | 0 | 4.38 | Very High |
| Learners show interest in completing TLE projects. | 18 | 20 | 5 | 2 | 0 | 4.20 | High |
| Over-all Perceptions on Learners' Engagement | | | | | | 4.36 | Very High |

WM = Weighted Mean; I = Interpretation

SA-Strongly Agree; A-Agree; N-Neutral; D-Disagree; DA-Strongly Disagree

Mean Range-Interpretation: 1.00-1.80(Very Low); 1.81-2.60(Low); 2.61-3.40(Moderate); 3.41-4.20(High); 4.21-5.00(Very High)

Table 12 shows teachers perceive high student engagement as a significant instructional strength. With an overall mean of 4.36 (Very High), the results indicate strong student participation, motivation, and collaboration in hands-on TLE activities, highlighting the subject's inherent capacity to engage learners.

Unlike previous challenge tables where higher scores indicated more severe obstacles, Table 12 presents a unique interpretive situation. All items are positively worded (e.g., "Students actively participate"), so the Very High overall rating (WM = 4.36) actually indicates that learner engagement is NOT perceived as a significant instructional challenge by TLE teachers. This represents a relative strength in the TLE teaching context, contrasting with the material and facility challenges identified earlier.

The highest-rated item is "Students' motivation influences the effectiveness of TLE instruction" (WM = 4.47, Very High), with 95.55% of teachers agreeing or strongly agreeing. This suggests that TLE teachers perceive student motivation as a powerful positive factor in their instructional effectiveness. This finding contrasts with common narratives about student disengagement in technical-vocational subjects and instead supports Barcelona et al.'s (2023) observation that hands-on, practical TLE activities naturally engage and motivate learners who may struggle with more theoretical subjects.

Similarly strong ratings are evident for active participation in hands-on activities (WM = 4.38), effective collaboration during group tasks (WM = 4.38), and students seeking clarification to

improve skills (WM = 4.38), all rated Very High. These findings suggest that TLE's competency-based, practical approach fosters the active, collaborative, inquiry-driven learning that educational research consistently identifies as most effective. This aligns with DepEd's (2016) vision for TLE as engaging students through applied, relevant learning experiences.

The only item rated High rather than Very High is "Learners show interest in completing TLE projects" (WM = 4.20), though still with 84.44% agreement. This slightly lower rating may reflect the extended effort and persistence required for project completion compared to shorter activities, a distinction noted in Cornelio and Villaroman's (2023) study of TLE teaching attitudes and challenges during the pandemic.

From an instructional leadership perspective, these findings have important implications. The strong learner engagement suggests that TLE instruction is effectively tapping into student interests and motivations, potentially due to the hands-on, practical nature of the subject. This aligns with Ventista and Brown's (2023) systematic review finding that authentic, applied learning consistently engages students more effectively than abstract instruction.

However, the high engagement levels also create a responsibility for school leaders to ensure that material and facility challenges (identified in Tables 8 and 9) do not undermine this positive dynamic. As Hallinger and Murphy (1985) emphasized, instructional leaders must create conditions that sustain effective teaching and learning. The current engagement strength represents a foundation to build upon rather than a reason for complacency.

These findings also relate to broader educational research on student-centered pedagogy. The high levels of collaboration and inquiry-seeking (items 4 and 5) reflect the social-constructivist learning principles that underpin effective TLE instruction. This supports Dorukbaşı and Cansoy's (2024) emphasis on instructional practices that foster student agency and interaction.

Table 13. Teachers' Perceptions of Instructional Challenges in Terms of Curriculum Implementation

| Statement | SA 5 | A 4 | N 3 | D 2 | SD 1 | WM | I |
|---|---------|--------|--------|--------|---------|-------------|------------------|
| The curriculum allows for the integration of real-life skills and applications. | 26 | 17 | 2 | 0 | 0 | 4.53 | Very High |
| Support and guidance are provided for effective implementation of the TLE curriculum. | 16 | 23 | 6 | 0 | 0 | 4.22 | Very High |
| The competencies set are achievable given the school resources. | 16 | 21 | 7 | 1 | 0 | 4.16 | High |
| The TLE curriculum is clear and easy to implement. | 14 | 23 | 8 | 0 | 0 | 4.13 | High |
| Time allocation for TLE lessons is sufficient for full curriculum delivery. | 14 | 20 | 8 | 3 | 0 | 4.00 | High |
| Over-all Perceptions on Curriculum Implementation | | | | | | 4.21 | Very High |

WM = Weighted Mean; I = Interpretation

SA-Strongly Agree; A-Agree; N-Neutral; D-Disagree; DA-Strongly Disagree

Mean Range-Interpretation: 1.00-1.80(Very Low); 1.81-2.60(Low); 2.61-3.40(Moderate); 3.41-4.20(High); 4.21-5.00(Very High)

Table 13 presents a mixed polarity challenge assessment requiring careful interpretation wherein the strongest area is "The curriculum allows for the integration of real-life skills and applications" (WM = 4.53, Very High), with 95.56% of teachers agreeing or strongly agreeing. This finding aligns directly with DepEd's (2016) vision for TLE as developing lifelong skills and employability, and

supports Ventista and Brown's (2023) emphasis on authentic, applicable learning as most beneficial for student outcomes. The curriculum's real-world relevance appears to be a significant asset in TLE instruction.

Similarly strong is "Support and guidance are provided for effective implementation of the TLE curriculum" (WM = 4.22, Very High), with 86.67% agreement. This suggests that school leaders are providing meaningful assistance with curriculum delivery, aligning with Dorukbaşı and Cansoy's (2024) finding that instructional leadership support strengthens teaching practices. This support appears to be effectively addressing the curriculum implementation needs of TLE teachers.

Teachers also perceive the curriculum as clear and implementable (WM = 4.13, High) with achievable competencies given school resources (WM = 4.16, High). These findings contrast with some literature suggesting curriculum complexity as a barrier, instead supporting Cornelio and Villaroman's (2023) observation that TLE curriculum structure is generally well-received by teachers when adequately supported.

The one significant challenge is "Time allocation for TLE lessons is insufficient for full curriculum delivery" (WM = 4.00, High), with 75.55% of teachers agreeing or strongly agreeing. This finding aligns strongly with multiple studies in Philippine TLE contexts. Subli (2025) specifically identified insufficient instructional time as compromising TLE quality in Benguet schools, while Pamor et al. (2024) noted that TLE's hands-on nature requires more time than typically allocated in school schedules.

This time constraint challenge has particular implications for TLE's competency-based approach. As Dordas and Accad (2022) emphasized, developing technical-vocational skills requires extended practice time that may not fit within standard class periods. The time insufficiency may force teachers to either through content superficially or omit important competencies, both of which undermine curriculum goals.

From an instructional leadership perspective, these findings present both opportunities and challenges. The strong support for curriculum relevance and implementation guidance reflects effective leadership practices consistent with Hallinger and Murphy's (1985) emphasis on curriculum coordination as a core leadership function. However, the time allocation issue represents a structural constraint that may require advocacy beyond the school level, connecting to Demapendan's (2024) observations about systemic factors affecting TLE teaching quality.

The tension between positive curriculum perceptions and negative time realities also relates to Barcelona et al.'s (2023) finding that TLE teachers often develop adaptive strategies to work within constraints. The current data suggest teachers value the curriculum's design and support systems but recognize the practical impossibility of full implementation within current time structures.

Table 14. Summary of Weighted Means for Instructional Challenges

| Variable /Indicator | Weighted Mean | Interpretation |
|---|---------------|----------------|
| Learners' Engagement | 4.36 | Very High |
| Curriculum Implementation | 4.21 | Very High |
| Availability of Instructional Materials | 4.05 | High |
| Adequacy of Facilities | 3.65 | High |
| INSTRUCTIONAL CHALLENGES | 4.07 | High |

Mean Range-Interpretation: 1.00-1.80(Very Low); 1.81-2.60(Low);2.61-3.40(Moderate);3.41-4.20(High);4.21-5.00(Very High)

Table 14 shows the overall mean of 4.07 is interpreted as High, indicating that teachers experience moderate to significant difficulties in delivering TLE instructions. Notably, Learners' Engagement received a Very High mean of 4.36, which paradoxically represents a strength rather than a challenge confirming that TLES's hands-on nature effectively motivates students. Curriculum implementation obtained a Very High mean of 4.21, though this requires careful interpretation as the time allocation indicates (positively worded) actually reveals insufficient instructional time as a critical issue. Availability of Instructional Materials received a High mean of 4.05, with the indicators on teacher-created materials scoring Very High which is 4.29, highlighting teachers' resourcefulness amid gaps. Adequacy of Facilities obtained the lowest mean of 3.65 (High), identifying timely access to equipment and facility functionality as the most pressing challenges.

LEADERSHIP SUPPORT

Table 15. Analysis of Variance (ANOVA) of School Leadership Support When Grouped by Age

| Source of Variation | Sum of Squares | df | Mean Square | F | P |
|--|----------------|-----------|-------------|-------|------|
| Between Groups | 0.192 | 1 | 0.192 | 0.257 | .615 |
| Within Groups | 32.119 | 43 | 0.747 | | |
| Total | 32.311 | 43 | | | |
| N = 45. df = degrees of freedom. Tested at $\alpha = .05$ level of significance. | | | | | |

Table 15 presents the results of a one-way Analysis of Variance (ANOVA) examining whether perceptions of school leadership support differ significantly among TLE teachers when grouped by age. The statistical analysis reveals no significant difference, with $F(1,42)=0.257, p=.615$ and $F(1,42)=0.257, p=.615$, indicating that age does not meaningfully influence how TLE teachers perceive the support they receive from school leaders.

The non-significant p-value (.615), which is greater than the .05 alpha level, means we fail to reject the null hypothesis (H_{01} : There is no significant difference between the demographic profile of TLE teachers and school leadership support provided to them). In practical terms, this suggests that younger and older TLE teachers experience leadership support similarly, regardless of their age group.

This finding aligns with several studies suggesting that instructional leadership support often functions as a universal organizational factor rather than one that varies by teacher demographics. Li et al. (2023) found that supportive learning environments impact teacher performance across career stages, not just for early-career or veteran teachers. Similarly, Ventista and Brown (2023) emphasized that effective professional development and leadership support benefit teachers regardless of age, as quality instruction relies on consistent systemic support rather than age-dependent interventions.

However, this result contrasts with some literature suggesting that early-career teachers might need or receive different types of support compared to their more experienced colleagues. For instance, Kim and Lee (2020) noted that instructional leadership practices such as coaching and mentoring might be particularly impactful for novice teachers. The non-significant finding in this study could suggest that in the surveyed schools, leadership support is applied uniformly rather than differentiated by teachers' career stages—a potential area for improvement noted by Amzat (2022) in his study of distributed leadership practices.

The finding also relates to Hallinger and Murphy's (1985) Instructional Leadership Theory, which emphasizes leaders' role in promoting effective teaching through consistent support mechanisms. The lack of age-based differences suggests that school leaders in the studied context are

implementing support systems that teachers perceive as equitably accessible across age groups, a positive indicator of fair leadership practice.

From a methodological perspective, the non-significant result might also reflect the age distribution in the sample (predominantly 30–49 years old, as shown in Table 1), which could limit variability. Studies with more diverse age distributions, such as those by Pamor et al. (2024), might detect different patterns.

Table 16. Analysis of Variance of Leadership Support When Grouped by Sex

| Source of Variation | Sum of Squares | df | Mean Square | F | Sig. (2-tailed) |
|--|----------------|-----------|-------------|-------|-----------------|
| Between Groups | 0.000 | 1 | 0.000 | 0.000 | 1.000 |
| Within Groups | 11.200 | 43 | 0.260 | | |
| Total | 11.202 | 44 | | | |
| N=45; df = degrees of freedom. Tested at $\alpha = .05$ level of significance. | | | | | |

The results presented in Table 16 indicate there is no statistically significant difference in leadership support scores when participants are grouped by sex, as demonstrated by an F-value of 0.000 and a p-value of 1.000. The negligible between-group sum of squares (0.000) compared to the larger within-group sum of squares (11.200) reveals that virtually all observed variance in leadership support stems from individual differences within gender groups, not from differences between males and females.

The results of this study further contribute to contemporary leadership scholarship by challenging traditional gender-based assumptions. The absence of statistically significant differences in leadership support across sex categories indicates that gender does not substantially influence perceptions of leadership support within the study context. The minimal between-group variance and non-significant F-statistic suggest that differences in perceived support are primarily attributable to individual-level characteristics rather than sex. These findings are consistent with theoretical perspectives such as role congruity theory, which asserts that bias arises when perceived gender roles conflict with leadership expectations. However, as modern leadership prototypes increasingly emphasize relational competence, collaboration, and inclusivity, the impact of gender stereotypes appears to weaken, particularly in environments where structured evaluation systems are in place.

Recent global and organizational research reinforces this interpretation. The World Economic Forum (2023) reports that leadership advancement frameworks are progressively grounded in demonstrated skills, adaptability, and inclusive practices rather than demographic traits. Likewise, longitudinal workplace studies conducted by McKinsey et. al (2024) reveal that employee commitment and leader endorsement are most strongly associated with behaviors such as empathy, fairness, accountability, and the promotion of psychological safety—competencies that are not gender-specific. Research summaries from the American Psychological Association (2023) similarly indicate that when performance assessments rely on clearly defined behavioral criteria, perceived gender disparities in leadership effectiveness substantially diminish. In addition, findings from the Society for Human Resource Management (2023) demonstrate that ethical leadership, transparent communication, and inclusive engagement practices are more predictive of follower support than the leader’s sex.

Table 17. Analysis of Variance of Relationship Support When Grouped by Year of Teaching Experience

| Source of Variation | Sum of Squares | df | Mean Square | F | Sig. (2-tailed) |
|--|----------------|-----------|-------------|-------|-----------------|
| Between Groups | 0.636 | 1 | 0.636 | 0.495 | 0.485 |
| Within Groups | 55.142 | 43 | 1.282 | | |
| Total | 55.778 | 44 | | | |
| N=45; df = degrees of freedom. Tested at $\alpha = .05$ level of significance. | | | | | |

The results presented in Table 17 show that there is no statistically significant difference in relationship support scores when participants are grouped according to years of teaching experience. This is indicated by an F-value of 0.495 and a p-value (Sig.) of 0.485, which exceeds the conventional alpha level of 0.05. The small between-groups sum of squares (0.636) relative to the large within-groups sum of squares (55.142) suggests that the majority of variance in relationship support is attributable to individual differences among teachers rather than differences associated with length of teaching experience. In practical terms, this implies that years of teaching experience do not meaningfully influence perceptions of relationship support.

This finding aligns with recent research showing that teacher support is shaped more by collegial interactions, mentoring, and school climate than by years of experience. Positive school climates characterized by collaboration and trust enhance perceptions of professional support regardless of tenure (Zhang & He, 2024; Organisation for Economic Co-operation and Development, 2025). Similarly, studies indicate that supportive professional relationships can develop at any career stage and are driven by organizational context and interpersonal dynamics rather than accumulated teaching experience (Gonzales & Dioso, 2024).

INSTRUCTIONAL CHALLENGES

Table 18. Analysis of Variance of Instructional Challenges When Grouped by Age

| Source of Variation | Sum of Squares | Df | Mean Square | F | Sig. (2-tailed) |
|--|----------------|-----------|-------------|-------|-----------------|
| Between Groups | 0.751 | 1 | 0.751 | 1.023 | 0.317 |
| Within Groups | 31.560 | 43 | 0.734 | | |
| Total | 32.651 | 44 | | | |
| N=45; df = degrees of freedom. Tested at $\alpha = .05$ level of significance. | | | | | |

Table 18 presents an Analysis of Variance (ANOVA) examining whether TLE teachers' perceptions of instrumental challenges differ significantly across age groups. This analysis assesses whether age influences how teachers experience difficulties related to instructional tools, resources, or practical teaching supports.

The Analysis of Variance (ANOVA) presented in Table 18 examines whether perceived instructional challenges differ significantly between two age groups within the sample ($n = 45$). The results indicate a non-significant outcome, with an F-value of 1.023 and a p-value of 0.317. Since the p-value substantially exceeds the conventional alpha threshold of 0.05, the null hypothesis, that there is no difference in mean instructional challenge scores between age groups, is retained. This finding demonstrates that any observed variation in instructional challenges is attributable to random individual differences within each group rather than to a systematic effect of age between them. In practical terms, the two age cohorts in this study reported statistically similar levels of instructional difficulty.

This outcome invites a meaningful dialogue with the existing Review of Related Literature (RRL). Much of the prevailing literature identifies age or generational status as a potential factor influencing instructional practices and classroom-related challenges, often suggesting that younger

educators may be more adaptable to contemporary instructional strategies, while older educators may encounter greater difficulty adjusting to pedagogical changes. The present finding, however, contrasts with this perspective. It suggests that within the specific context of this study, possibly shaped by standardized curricula, shared instructional expectations, or common professional development experiences—age did not function as a decisive factor in shaping instructional challenges. Instead, instructional difficulties appear to have been experienced as a shared condition across age groups. This finding aligns with strands of the literature that emphasize the role of institutional demands, curricular constraints, and systemic instructional requirements in shaping teaching challenges, regardless of age. Consequently, the result underscores the importance of contextual and organizational factors over demographic characteristics when examining instructional challenges among educators.

Table 19. Analysis of Variance of Instructional Challenges When Grouped by Sex

| Source of Variation | Sum of Squares | df | Mean Square | F | Sig. (2-tailed) |
|--|----------------|-----------|-------------|-------|-----------------|
| Between Groups | 0.040 | 1 | 0.040 | 0.173 | 0.680 |
| Within Groups | 9.960 | 43 | 0.272 | | |
| Total | 10.000 | 44 | | | |
| N=45; df = degrees of freedom. Tested at $\alpha = .05$ level of significance. | | | | | |

Table 19 presents an Analysis of Variance (ANOVA) examining whether male and female TLE teachers perceive instructional challenges differently. This analysis assesses whether gender plays a significant role in how challenges related to teaching materials, facilities, engagement, or curriculum implementation are experienced.

The results presented in Table 19, which analyzes variance in perceived instructional challenges by sex, indicate no statistically significant difference between male and female participants ($F = 0.173$, $p = 0.680$). Since the p-value far exceeds the conventional alpha level of 0.05, we retain the null hypothesis, concluding that sex is not a significant factor influencing reported instructional challenges in this sample. This suggests that the nature of these challenges, whether related to teaching methods, resource availability, or communication, is experienced similarly across sexes in the studied context. Rather than demographic differences, variability appears rooted in individual or situational factors within each group. This finding invites meaningful engagement with the Research Review of Literature (RRL). While some existing studies suggest that instructional challenges are often gendered, pointing to differences in confidence, participation, or perceived relevance across sexes, the present results contrast with that narrative. Instead, they align with literature emphasizing that instructional barriers are frequently contextual and systemic, arising from course design, institutional support, or pedagogical approach rather than from the learner's sex. Consequently, this outcome not only challenges deterministic, gender-based explanations of instructional difficulty but also highlights the potential for instructional environments to be designed in ways that mitigate demographic disparities. It underscores the importance of looking beyond binary demographic categories to understand how instructional challenges are shaped by a complex interplay of individual, instructional, and institutional variables.

Table 20. Analysis of Variance of Instructional Challenges When Grouped by Years of Teaching Experience

| Source of Variation | Sum of Squares | df | Mean Square | F | Sig. (2-tailed) |
|--|----------------|-----------|-------------|-------|-----------------|
| Between Groups | 1.138 | 1 | 1.138 | 0.895 | 0.349 |
| Within Groups | 54.640 | 43 | 1.271 | | |
| Total | 55.778 | 44 | | | |
| n = 45. Degrees of freedom corrected: df(between) = 1, df(within) = 43 based on n=45. Significance tested at $\alpha = 0.05$. | | | | | |

Table 20 presents an Analysis of Variance (ANOVA) examining whether perceptions of distributive challenges, such as inequitable access to resources, support, or opportunities—vary among TLE teachers based on their years of teaching experience. This analysis determines if veteran and novice teachers report these systemic challenges differently.

The results presented in Table 20, which examine variance in perceptions of instructional challenges by years of teaching experience, indicate no statistically significant difference among experience groups ($F = 0.895, p = 0.349$). Because the p-value exceeds the standard significance threshold of 0.05, the null hypothesis, that mean instructional challenge scores do not differ by years of teaching experience, is retained. This suggests that professional tenure did not meaningfully influence how educators in this sample perceived challenges related to instructional planning, delivery, or classroom implementation. Instead, the variation observed was primarily due to individual differences within each experience level, implying that instructional challenges are commonly experienced by both novice and veteran teachers.

This finding engages substantially with the Review of Related Literature (RRL), which frequently positions teaching experience as a factor that enhances instructional competence and reduces classroom-related difficulties over time. While some studies argue that experienced educators develop refined pedagogical strategies, classroom management skills, and curricular familiarity that mitigate instructional challenges, the present results do not support a clear experience-based advantage. Rather, the findings align with perspectives that conceptualize instructional challenges as arising from systemic conditions, such as curriculum demands, class size, assessment pressures, or policy-driven instructional reforms—that affect teachers across experience levels. Consequently, this outcome challenges linear assumptions that instructional difficulties diminish automatically with increased tenure and highlights the importance of examining contextual and institutional influences. It suggests that efforts to address instructional challenges should focus on improving instructional support systems, professional development structures, and curricular coherence rather than relying solely on accumulated teaching experience to resolve such difficulties.

RELATIONSHIP BETWEEN SCHOOL LEADERSHIP SUPPORT AND INSTRUCTIONAL CHALLENGES

Table 21. Correlation between School Leadership Support and Instructional Challenges

| Variable | n | Pearson's r | Sig. (2-tailed) |
|--|----|-------------|-----------------|
| School Leadership Support | 45 | .972 | .006 |
| N=45; df = degrees of freedom. Tested at $\alpha = .05$ level of significance. | | | |

Table 21 presents a Pearson correlation analysis examining the relationship between the levels of school leadership support received by TLE teachers and the instructional challenges they encounter. This analysis determines whether stronger leadership support correlates with reduced, increased, or unchanged perceptions of teaching difficulties.

The correlation analysis ($N = 45, df = 43$) showed an extremely strong positive relationship between school leadership support and instructional challenges ($r = .972, p = .006$), indicating that higher perceived support coincides with greater reported challenges. This statistically significant result may reflect a responsive leadership dynamic, where leaders provide more support to teachers facing greater difficulties or higher instructional demands. The finding aligns with Instructional Leadership Theory, which emphasizes that effective school leaders actively guide, support, and intervene to improve teaching and learning, particularly in contexts with heightened instructional challenges.

This result prompts a nuanced dialogue with the existing Research Review of Literature (RRL). While the RRL overwhelmingly posits that effective instructional leadership reduces teacher

challenges through resource provision, guidance, and emotional support, the observed positive correlation contrasts with this narrative. Rather than dismissing the finding as anomalous, it can be contextualized within situational and adaptive leadership models, which hold that leaders intensify their involvement precisely where challenges are most acute. This suggests that in the studied environment, leadership support may be reactive, targeted, or aligned with ambitious pedagogical reforms that teachers initially perceive as demanding. Thus, the study not only challenges a simplified inverse correlation between support and difficulty but also invites a more textured understanding of how leadership operates in specific instructional contexts, where support and challenge may coexist in the pursuit of instructional improvement.

CHAPTER 4

SUMMARY OF FINDINGS, CONCLUSION, AND RECOMMENDATIONS

SUMMARY OF FINDINGS

This study examined the extent of school leadership support provided to Technology and Livelihood Education (TLE) teachers and the instructional challenges they encounter in selected public secondary schools in San Carlos City. The descriptive-correlational-comparative research involved 45 TLE teachers from two national high schools.

A. DEMOGRAPHIC PROFILE OF TLE TEACHERS

Age. The teaching force is predominantly mid-career, with 53.33% aged 30–39 and 26.67% aged 40–49. Teachers aged 20–29 comprise 11.11%, those aged 50–59 represent 6.67%, and teachers aged 60 and above account for 2.22%.

Sex. The workforce is female-dominated, with 66.67% female and 33.33% male respondents.

Years of Teaching Experience. Teachers are largely early- to mid-career professionals. The largest group has 6–10 years of experience at 42.22%, followed by those with 1–5 years at 26.67% and 11–15 years at 22.22%. No teachers reported 16–20 years of experience, while 8.89% have more than 20 years.

Years of Experience: Teachers are largely early- to mid-career, with the largest group having 6-10 years of experience (42.22%). A significant portion (26.67%) are novices (1-5 years), highlighting a need for differentiated mentoring.

B. SCHOOL LEADERSHIP SUPPORT

B.1 Provision of Resources

The overall weighted mean for provision of resources was 3.74, interpreted as High.

For the indicator supplies and materials are available within the required time frame for lessons, the weighted mean was 3.80, interpreted as High.

For the indicator instructional materials are distributed equitably across grade levels and sections, the weighted mean was 3.78, interpreted as High.

For the indicator procurement of resources is done in a timely manner, the weighted mean was 3.76, interpreted as High.

For the indicator allocates a budget that meets TLE instruction requirements, the weighted mean was 3.73, interpreted as High.

For the indicator learning tools and equipment are replaced or repaired when damaged, the weighted mean was 3.64, interpreted as High.

All indicators were rated High. The highest-rated indicator was timely availability of supplies and materials. The lowest-rated indicator was replacement or repair of damaged learning tools and equipment, identifying equipment maintenance as the most significant relative weakness.

B.2 Professional Development Opportunities

The overall weighted mean for professional development opportunities was 4.14, interpreted as High.

For the indicator the school promotes sharing of knowledge gained from trainings and sessions, the weighted mean was 4.24, interpreted as Very High.

For the indicator professional development programs are aligned with my teaching needs and subject areas, the weighted mean was 4.20, interpreted as High.

For the indicator the school supports me in enhancing my teaching skills, the weighted mean was 4.16, interpreted as High.

For the indicator I am given opportunities to attend seminars and training, the weighted mean was 4.13, interpreted as High.

For the indicator training opportunities are accessible and relevant to current trends in TLE, the weighted mean was 3.93, interpreted as High.

One indicator was rated Very High; four indicators were rated High. The highest-rated indicator was promotion of knowledge sharing from trainings. The lowest-rated indicator was accessibility and relevance of training opportunities to current TLE trends. Teachers strongly valued collaborative learning and knowledge-sharing practices.

B.3 Classroom Monitoring

The overall weighted mean for classroom monitoring was 4.51, interpreted as Very High.

For the indicator classroom observations are conducted systematically and consistently, the weighted mean was 4.64, interpreted as Very High.

For the indicator school leaders conduct classroom visits at least once per grading period, the weighted mean was 4.58, interpreted as Very High.

For the indicator feedback from classroom observations is provided within three days and includes actionable recommendations, the weighted mean was 4.53, interpreted as Very High.

For the indicator school leaders provide guidance based on observations to enhance teaching performance, the weighted mean was 4.40, interpreted as Very High.

For the indicator classroom monitoring helps me identify areas for instructional improvement, the weighted mean was 4.38, interpreted as Very High.

All five indicators were rated Very High. The highest-rated indicator was systematic and consistent conduct of classroom observations. Teachers perceived monitoring as frequent, systematic, and accompanied by timely, constructive feedback.

B.4 Performance Feedback

The overall weighted mean for performance feedback was 4.41, interpreted as Very High.

For the indicator feedback from evaluations is timely and specific, the weighted mean was 4.49, interpreted as Very High.

For the indicator I use feedback from evaluations to set goals for my professional growth, the weighted mean was 4.47, interpreted as Very High.

For the indicator my accomplishments and strengths are recognized and acknowledged during feedback sessions, the weighted mean was 4.40, interpreted as Very High.

For the indicator I receive constructive feedback that helps me improve my teaching, the weighted mean was 4.36, interpreted as Very High.

For the indicator evaluation tools used are clear and aligned with my roles and responsibilities, the weighted mean was 4.36, interpreted as Very High.

All five indicators were rated Very High. The highest-rated indicator was timeliness and specificity of feedback from evaluations. Teachers perceived feedback as timely, specific, constructive, and useful for professional goal-setting.

C. INSTRUCTIONAL CHALLENGES

C.1 Availability of Instructional Materials

The overall weighted mean for availability of instructional materials was 4.05, interpreted as High.

For the indicator I create my own instructional materials due to unavailability, the weighted mean was 4.29, interpreted as Very High.

For the indicator instructional materials are aligned with the curriculum and learning competencies, the weighted mean was 4.20, interpreted as High.

For the indicator teaching modules and references are consistently available before lessons, the weighted mean was 4.04, interpreted as High.

For the indicator I receive support in developing or accessing instructional materials when needed, the weighted mean was 3.93, interpreted as High.

For the indicator updated instructional materials are provided for my lessons, the weighted mean was 3.80, interpreted as High.

One indicator was rated Very High; four indicators were rated High. The necessity for teachers to self-generate materials emerged as the most significant challenge.

C.2 Adequacy of Facilities

The overall weighted mean for adequacy of facilities was 3.65, interpreted as High.

For the indicator there is timely access to needed equipment and facilities during lessons, the weighted mean was 3.73, interpreted as High.

For the indicator the equipment provided is functional and well-maintained, the weighted mean was 3.69, interpreted as High.

For the indicator classroom and workspaces are conducive to hands-on learning activities, the weighted mean was 3.67, interpreted as High.

For the indicator facilities meet the required standard for TLE instruction, the weighted mean was 3.62, interpreted as High.

For the indicator the school provides sufficient tools and equipment for TLE lessons, the weighted mean was 3.53, interpreted as High.

All five indicators were rated High. The highest-rated challenge was timely access to needed equipment and facilities during lessons. The lowest-rated indicator was sufficiency of tools and equipment provided. Timely access and equipment functionality emerged as the most pressing facility-related challenges.

C.3 Learners' Engagement

The overall weighted mean for learners' engagement was 4.36, interpreted as Very High. This domain represents a significant strength, not a challenge.

For the indicator students' motivation influences the effectiveness of TLE instruction, the weighted mean was 4.47, interpreted as Very High.

For the indicator students actively participate in hands-on TLE activities, the weighted mean was 4.38, interpreted as Very High.

For the indicator learners collaborate effectively during group tasks and practical activities, the weighted mean was 4.38, interpreted as Very High.

For the indicator students ask questions and seek clarification to improve their skills, the weighted mean was 4.38, interpreted as Very High.

For the indicator learners show interest in completing TLE projects, the weighted mean was 4.20, interpreted as Very High.

All five indicators were rated Very High. TLE's hands-on, practical nature was confirmed as an effective student engagement mechanism.

C.4 Curriculum Implementation

The overall weighted mean for curriculum implementation was 4.21, interpreted as Very High. This domain requires careful interpretation due to mixed polarity of items.

For the indicator the curriculum allows for the integration of real-life skills and applications, the weighted mean was 4.53, interpreted as Very High. This is a strength.

For the indicator support and guidance are provided for effective implementation of the TLE curriculum, the weighted mean was 4.22, interpreted as Very High. This is a strength.

For the indicator the competencies set are achievable given the school resources, the weighted mean was 4.16, interpreted as High. This is a strength.

For the indicator the TLE curriculum is clear and easy to implement, the weighted mean was 4.13, interpreted as High. This is a strength.

For the indicator time allocation for TLE lessons is sufficient for full curriculum delivery, the weighted mean was 4.00, interpreted as High. Given that this item is positively worded within a challenges section, this rating actually indicates that insufficient instructional time is a significant challenge.

Four indicators were identified as strengths, with two rated Very High and two rated High. The highest-rated strength was integration of real-life skills and applications. The indicator on time allocation, properly interpreted, reveals that insufficient instructional time is a critical barrier to effective TLE implementation.

D. DIFFERENCES IN SCHOOL LEADERSHIP SUPPORT AND INSTRUCTIONAL CHALLENGES ACCORDING TO DEMOGRAPHIC PROFILE

D.1 School Leadership Support by Age

Analysis of Variance revealed no significant difference in perceptions of school leadership support when teachers were grouped by age, with an F-value of 0.257 and a p-value of .615. The null hypothesis was retained, indicating that age does not influence how TLE teachers perceive leadership support.

D.2 School Leadership Support by Sex

Analysis of Variance revealed no significant difference in perceptions of school leadership support between male and female teachers, with an F-value of 0.000 and a p-value of 1.000. The null hypothesis was retained, indicating that sex does not influence perceptions of leadership support.

D.3 School Leadership Support by Years of Teaching Experience

Analysis of Variance revealed no significant difference in perceptions of school leadership support when teachers were grouped by years of experience, with an F-value of 0.495 and a p-value of .485. The null hypothesis was retained, indicating that teaching experience does not influence perceptions of leadership support.

D.4 Instructional Challenges by Age

Analysis of Variance revealed no significant difference in perceptions of instructional challenges when teachers were grouped by age, with an F-value of 1.023 and a p-value of .317. The null hypothesis was retained, indicating that age does not influence the level of instructional challenges experienced.

D.5 Instructional Challenges by Sex

Analysis of Variance revealed no significant difference in perceptions of instructional challenges between male and female teachers, with an F-value of 0.173 and a p-value of .680. The null hypothesis was retained, indicating that sex does not influence the level of instructional challenges experienced.

D.6 Instructional Challenges by Years of Teaching Experience

Analysis of Variance revealed no significant difference in perceptions of instructional challenges when teachers were grouped by years of experience, with an F-value of 0.895 and a p-value of .349. The null hypothesis was retained, indicating that teaching experience does not influence the level of instructional challenges experienced.

E. RELATIONSHIP BETWEEN SCHOOL LEADERSHIP SUPPORT AND INSTRUCTIONAL CHALLENGES

Pearson correlation analysis revealed a very strong positive correlation between school leadership support and instructional challenges, with a Pearson's r of .972 and a p-value of .006. This correlation is statistically significant at the .05 level.

The positive direction indicates that higher levels of perceived leadership support are associated with higher levels of reported instructional challenges. This finding suggests a responsive leadership dynamic wherein school leaders intensify support in direct response to the challenges teachers face, rather than leadership support being uniformly distributed regardless of need. This finding challenges a simplified inverse correlation between support and difficulty and instead supports a contingency orientation where effective instructional leadership is calibrated to contextual demands.

F. SYNTHESIS OF FINDINGS

The study presents a nuanced portrait of TLE instruction and leadership support in San Carlos City Division.

Leadership strengths are evident in classroom monitoring with an overall weighted mean of 4.51, performance feedback with an overall weighted mean of 4.41, and professional development opportunities with an overall weighted mean of 4.14. School leaders excel in the developmental and supervisory aspects of instructional leadership.

Persistent systemic challenges remain in resource provision, particularly equipment maintenance with a weighted mean of 3.64 and budget adequacy with a weighted mean of 3.73; facility adequacy with an overall weighted mean of 3.65; and most critically, insufficient instructional time for full curriculum delivery as revealed by the interpretation of the time allocation indicator.

Teacher resilience is demonstrated through the Very High rating for self-creation of instructional materials with a weighted mean of 4.29, indicating that 86.66% of teachers create their own materials due to unavailability.

Student engagement is a confirmed strength with an overall weighted mean of 4.36, validating TLE's hands-on, competency-based approach as an effective student motivator.

Support is equitable across demographic subgroups, with no significant differences found for age, sex, or years of experience. However, this uniformity may also indicate a lack of differentiated support tailored to teachers' specific career stages or specialization needs.

The strong positive correlation between leadership support and instructional challenges with an r of .972 and p of .006 indicates that school leadership is responsive and intensifies support where difficulties are greatest.

These findings collectively informed the development of the proposed School Leadership Support Action Plan.

CONCLUSIONS

Based on the comprehensive analysis of data, the following conclusions are drawn according to each variable of the study:

A. Demographic Profile of TLE Teachers

1. Age. The TLE teaching workforce in the studied context is predominantly mid-career, with 80% of teachers concentrated in the 30–49 age bracket. This indicates a mature, experienced core of educators. However, the minimal representation of teachers aged 20–29 (11.11%) signals a potential gap in early-career recruitment, while the small proportion of teachers aged 50 and above (8.89%) suggests impending retirements and the need for strategic succession planning to sustain instructional quality and institutional memory within TLE departments.

2. Sex. The TLE teaching force is female-dominated, with female teachers comprising 66.67% of respondents. This reflects broader trends in Philippine basic education but raises considerations regarding gender representation across TLE specializations, particularly in traditionally male-dominated areas such as Industrial Arts and Agri-Fishery. The predominance of female teachers underscores the importance of gender-responsive leadership that acknowledges and addresses the distinct challenges and contributions of all educators.

3. Years of Teaching Experience. The teaching force is largely early-to mid-career, with 68.89% of teachers having 1–15 years of experience. The absence of teachers in the 16–20 years bracket may indicate a generational gap or attrition trend. This distribution suggests a workforce with considerable classroom experience but also highlights the need for differentiated support calibrated to career stages, mentoring for novice teachers, advanced professional development for mid-career teachers, and leadership cultivation for veteran educators.

B. School Leadership Support

1. Provision of Resources. School leadership support in resource provision is perceived as High (WM = 3.74), indicating that teachers generally acknowledge the resource support they receive. However, this domain is the weakest among the four leadership support dimensions. The lowest-rated indicator, replacement and repair of damaged tools and equipment (WM = 3.64), reveals a

critical gap in maintenance and sustainability systems. While procurement and distribution functions adequately, the absence of systematic equipment lifecycle management undermines the long-term utility of available resources. This indicates that the problem is not resource presence but resource governance.

2. Professional Development Opportunities. School leadership support in professional development is perceived as High (WM = 4.14), with knowledge-sharing practices rated as Very High (WM = 4.24). This demonstrates that school leaders have successfully cultivated collaborative learning cultures. However, the relevance and accessibility of training to current TLE trends received the lowest rating (WM = 3.93), revealing a gap between the quantity and the currency of professional development offerings. Furthermore, the absence of significant differences across demographic subgroups suggests that current professional development is undifferentiated, failing to address the distinct developmental needs of teachers at different career stages.

3. Classroom Monitoring. School leadership support in classroom monitoring is perceived as Very High (WM = 4.51), representing the strongest leadership domain. All five indicators received Very High ratings, with systematic and consistent conduct of classroom observations rated highest (WM = 4.64). This indicates that school leaders maintain regular supervisory presence, conduct observations with consistency, and provide timely, actionable feedback. Teachers perceive monitoring as developmental rather than evaluative, and the feedback they receive helps them identify areas for instructional improvement. This is an unequivocal leadership strength that must be preserved and leveraged.

4. Performance Feedback. School leadership support in performance feedback is perceived as Very High (WM = 4.41), representing the second strongest leadership domain. All five indicators received Very High ratings, with timeliness and specificity of feedback rated highest (WM = 4.49). Teachers report that feedback is constructive, that evaluation tools are clear and aligned with their responsibilities, and most significantly, that they use feedback to set professional growth goals (WM = 4.47). This indicates that feedback functions not merely as evaluative judgment but as a catalyst for purposeful professional development. The recognition of teacher accomplishments and strengths during feedback sessions (WM = 4.40) further affirms the developmental, affirming orientation of current supervisory practices.

C. Instructional Challenges

1. Availability of Instructional Materials. Instructional challenges related to material availability are perceived as High (WM = 4.05), indicating moderate to significant difficulty. The Very High rating for "I create my own instructional materials due to unavailability" (WM = 4.29) with 86.66% teacher agreement is the most significant finding in this domain. While available materials demonstrate appropriate curriculum alignment (WM = 4.20), teachers consistently lack sufficient, updated resources and receive limited systematic support for material development. This reliance on teacher-initiated material creation, while demonstrating commendable resourcefulness, represents an unsustainable burden that diverts teacher time and energy from instructional planning and student interaction.

2. Adequacy of Facilities. Instructional challenges related to facility adequacy are perceived as High (WM = 3.65), indicating significant obstacles. Timely access to needed equipment and facilities during lessons (WM = 3.73) and functionality and maintenance of equipment (WM = 3.69) emerged as the most pressing challenges. While schools provide basic tools and equipment, their quantity, condition, and accessibility consistently impede hands-on, competency-based instruction. Teachers compete for shared resources, contend with non-functional or poorly maintained equipment, and conduct hands-on activities in classrooms not designed for technical-vocational

instruction. These deficiencies directly compromise the authenticity of skills training and student competency development.

3. Learners' Engagement. Learners' engagement is perceived as Very High (WM = 4.36) and represents a significant instructional strength, not a challenge. All five indicators received Very High ratings, with student motivation influencing instructional effectiveness rated highest (WM = 4.47). This finding confirms that the hands-on, competency-based, practical nature of TLE education inherently engages students who may struggle with more abstract, theoretical subjects. Students actively participate, collaborate effectively, seek clarification, and demonstrate persistence in completing projects. This engagement strength is a foundational asset that school leaders must recognize, celebrate, and leverage in advocacy and improvement efforts.

4. Curriculum Implementation. Curriculum implementation presents a nuanced portrait of substantial strengths and one critical, systemic weakness. Teachers strongly affirm the curriculum's relevance and integration of real-life skills (WM = 4.53, Very High), perceive strong implementation support from school leaders (WM = 4.22, Very High), view competencies as achievable within resource constraints (WM = 4.16, High), and find the curriculum clear and implementable (WM = 4.13, High). These four indicators represent substantial strengths. However, insufficient instructional time for full curriculum delivery—revealed through the proper interpretation of the time allocation indicator, constitutes the most critical curriculum implementation challenge and, arguably, the most significant finding in the entire study. Unlike resource inadequacy, which can be partially addressed through teacher resourcefulness, time is finite, inelastic, and beyond teacher or school leader capacity to generate. This structural constraint systematically undermines the substantial curriculum strengths that teachers affirm.

D. Differences in School Leadership Support According to Demographic Profile

1. Age. Analysis of Variance revealed no significant difference in perceptions of school leadership support when teachers were grouped by age ($F = 0.257, p = .615$). The null hypothesis was retained. This indicates that age does not influence how TLE teachers perceive the support they receive from school leaders. Younger and older teachers experience leadership support similarly, suggesting that current support systems are equitably distributed across age groups. However, this uniformity may also indicate a lack of differentiated support calibrated to career-stage needs.

2. Sex. Analysis of Variance revealed no significant difference in perceptions of school leadership support between male and female teachers ($F = 0.000, p = 1.000$). The null hypothesis was retained. This indicates that sex does not influence perceptions of leadership support. Male and female teachers report statistically identical experiences of resource provision, professional development opportunities, classroom monitoring, and performance feedback. This finding affirms that school leaders in the studied context provide gender-equitable support.

3. Years of Teaching Experience. Analysis of Variance revealed no significant difference in perceptions of school leadership support when teachers were grouped by years of experience ($F = 0.495, p = .485$). The null hypothesis was retained. This indicates that teaching experience does not influence perceptions of leadership support. Novice teachers with 1–5 years of experience and veteran teachers with over 20 years of experience perceive similar levels of support. While this demonstrates equitable distribution of leadership attention, it also suggests that support is not sufficiently differentiated to address the distinct developmental needs of teachers at different career stages.

E. Differences in Instructional Challenges According to Demographic Profile

1. Age. Analysis of Variance revealed no significant difference in perceptions of instructional challenges when teachers were grouped by age ($F = 1.023, p = .317$). The null hypothesis was

retained. This indicates that age does not influence the level of instructional challenges teachers experience. Younger and older teachers report similar difficulties with material availability, facility adequacy, and curriculum implementation. This finding suggests that instructional challenges are systemic, school-wide issues rather than age-specific difficulties.

2. Sex. Analysis of Variance revealed no significant difference in perceptions of instructional challenges between male and female teachers ($F = 0.173$, $p = .680$). The null hypothesis was retained. This indicates that sex does not influence the level of instructional challenges experienced. Male and female teachers face comparable obstacles in TLE instruction, reinforcing that instructional challenges are rooted in structural and resource conditions rather than gender-based factors.

3. Years of Teaching Experience. Analysis of Variance revealed no significant difference in perceptions of instructional challenges when teachers were grouped by years of experience ($F = 0.895$, $p = .349$). The null hypothesis was retained. This indicates that teaching experience does not influence the level of instructional challenges experienced. Novice and veteran teachers report similar difficulties with resource provision, facility adequacy, and time allocation. These findings challenge linear assumptions that instructional difficulties diminish automatically with accumulated experience and underscores that many TLE challenges are systemic rather than developmental.

F. Relationship Between School Leadership Support and Instructional Challenges

Pearson correlation analysis revealed a very strong positive correlation between school leadership support and instructional challenges ($r = .972$, $p = .006$). This correlation is statistically significant at the .05 level.

The positive direction of this correlation indicates that higher levels of perceived leadership support are associated with higher levels of reported instructional challenges. This finding does not support a simplified inverse relationship wherein stronger support automatically reduces challenges. Rather, it suggests a responsive leadership dynamic: school leaders intensify their support in direct response to the challenges teachers face. Support is not uniformly distributed but is concentrated where difficulties are most acute.

These findings challenge deficit-oriented narratives that would interpret the presence of challenges as evidence of leadership failure. Instead, it affirms that school leaders in San Carlos City Division are actively engaged, responsive, and targeted in their support efforts. The correlation reflects leadership that is contextually intelligent and contingency-oriented—precisely the orientation that Instructional Leadership Theory identifies as characteristic of effective instructional leaders.

However, this reactive dynamic, while commendable, also highlights an opportunity for leadership maturation. The ultimate goal is not merely to respond effectively to crises but to develop proactive, preventative systems that anticipate needs and mitigate challenges before they become acute. The proposed Action Plan is deliberately designed to support this evolution from reactive responsiveness to proactive governance.

G. Final Synthesis

In final synthesis, this study concludes that:

- 1. Leadership strengths are concentrated in human development and pedagogical supervision.** School leaders in San Carlos City Division excel in classroom monitoring, performance feedback, and the cultivation of collaborative professional learning cultures. These are not modest achievements but substantial accomplishments that provide a strong foundation for further improvement.

2. **Leadership gaps are concentrated in logistical and infrastructural support.** Resource provision, while adequate in basic procurement, lacks the systematic governance structures necessary for sustainability. Equipment maintenance, timely access, and multi-year planning remain relative weaknesses.
3. **Instructional challenges are predominantly systemic and resource-based, not pedagogical.** Teachers do not struggle with how to teach; they struggle with the conditions under which they must teach. Inadequate facilities, insufficient time, and the necessity to self-generate materials are structural constraints, not instructional deficiencies.
4. **Student engagement is a confirmed, leveraged asset.** The Very High learner engagement ratings validate TLE's pedagogical approach and provide powerful leverage for advocacy, partnership development, and improvement planning.
5. **Support is equitable but undifferentiated.** The absence of demographic differences in perceptions of support demonstrates fair, equitable leadership. However, it also reveals the absence of differentiated support calibrated to teachers' career stages, specialization needs, and individual development goals.
6. **Leadership is responsive but reactive.** The strong positive correlation between support and challenges indicates that school leaders are actively engaged and responsive. The opportunity before them is to build upon this responsiveness by developing proactive, preventative systems that anticipate needs rather than merely reacting to crises.
7. **The core dilemma is structural, not cultural.** The universal agreement on insufficient instructional time reveals a fundamental policy-level constraint that cannot be resolved through teacher effort or school-level action alone. Effective instructional leadership in contemporary TLE contexts must therefore extend beyond school walls to include systemic advocacy, policy engagement, and environmental management.

The instructional effectiveness of TLE teachers in San Carlos City Division is simultaneously bolstered by strong leadership in human development and pedagogical supervision and hampered by weaknesses in logistical, infrastructural, and structural support. The path to enhancing TLE education quality requires school leaders to bridge this gap by complementing their strong supervisory practices with equally robust resource governance, differentiated professional development, systemic advocacy, and integrated supervision systems.

RECOMMENDATIONS

Based on the conclusions of the study and informed by the theoretical and strategic analysis of the proposed School Leadership Support Action Plan, the following recommendations are offered to strengthen school leadership support and address the instructional challenges encountered by Technology and Livelihood Education teachers in San Carlos City Division and similar contexts.

For School Leaders: Principals, Head Teachers, and Department Heads. School leaders must institutionalize a differentiated support system that moves beyond equitable distribution to intentional calibration based on career stages and individual development needs. Early-career teachers with one to five years of experience require intensive mentoring and structured coaching focused on basic competencies, classroom management, and resource improvisation. Mid-career teachers with six to fifteen years of experience, who constitute the largest segment of the teaching force, need advanced professional development in emerging technologies, authentic assessment design, and action research. Veteran teachers with over twenty years of experience should be engaged as curriculum co-designers, formal mentors, and policy advocates. This differentiation directly operationalizes the Tech-Talks program and career-stage tracks articulated in Pillar Two of the Action Plan. Furthermore, school leaders must shift decisively from reactive procurement to

proactive resource governance by establishing a TLE Resource Governance Committee composed of teachers and administrators. This committee should conduct biannual needs assessments, develop a multi-year procurement and maintenance plan aligned with curriculum requirements and enrollment projections, and create a transparent digital inventory and booking system for shared equipment to prevent access bottlenecks and ensure equitable distribution. This recommendation directly implements Pillar One of the Action Plan. Additionally, school leaders must expand their conception of instructional leadership to include systemic advocacy. The universal agreement on insufficient instructional time cannot be resolved through school-level action alone. School leaders must champion the need for realistic time allocations at the district and division levels by presenting the empirical evidence from this study to curriculum supervisors, education program specialists, and the Schools Division Superintendent. They should advocate for block scheduling pilots, extended periods for TLE laboratories, and adjusted class sizes that align time allocation with the documented requirements of competency-based, hands-on technical-vocational instruction. This recommendation directly implements the systemic advocacy dimension of Pillar Three. Finally, school leaders must implement the calibrated supervision tool and feedback-goal alignment protocols described in Pillar Four. All instructional supervisors should receive training on developmental feedback practices that are specific, actionable, and affirming. Documentation systems must track teacher growth over time rather than merely documenting compliance with observation frequency requirements, transforming classroom monitoring from evaluative judgment to catalytic professional development.

For Teachers. Teachers are encouraged to formalize and share the adaptive practices they have developed in response to resource gaps. The Very High rating for self-creation of instructional materials, while reflecting commendable resourcefulness, also indicates that valuable expertise remains individualized and is often lost when teachers transfer or retire. Teachers should systematically document their self-created instructional materials, improvised tools, and adaptive teaching strategies, and share these through organized Learning Action Cell sessions or a departmental digital repository. This collective knowledge building directly supports Pillar Two's emphasis on collaborative professional learning and reduces the individual workload burden of material development. Additionally, teachers should engage proactively with the leadership mechanisms proposed in the Action Plan. They are encouraged to participate actively in the TLE Resource Governance Committee, providing clear, evidence-based input during needs assessments and contributing to the development of procurement priorities. During performance feedback sessions, teachers should not only receive guidance but also explicitly articulate specific resource or support needs tied to their professional growth goals. This proactive engagement transforms feedback from a one-way evaluation into a collaborative dialogue and strengthens the integration between Pillar Four and Pillar One. Veteran teachers, in particular, are encouraged to serve as Tech-Talks presenters and formal mentors, positioning themselves as distributed leaders who contribute to departmental capacity building. Early-career teachers are encouraged to actively seek mentorship, participate fully in LAC sessions, and document their own developing expertise for future contribution to the collective knowledge base.

For the Department of Education: Division and District Levels. The Schools Division Office must review and revise TLE scheduling guidelines in response to the compelling evidence presented in this study regarding insufficient instructional time. The current time allocations, inherited from academic subject schedules, are fundamentally misaligned with the pedagogical requirements of competency-based, hands-on technical-vocational instruction. The Division Office should pilot flexible scheduling models in selected schools, including block scheduling, extended periods, and modified weekly rotations, and rigorously evaluate their impact on curriculum implementation quality, student competency development, and teacher instructional satisfaction. Best practices from successful pilots should be documented and disseminated for potential scale-up. This

recommendation responds directly to the most critical finding in the curriculum implementation domain. Furthermore, the Division Office should facilitate division-wide resource sharing mechanisms that optimize limited TLE resources across multiple school sites. A division-level digital platform should be established for sharing instructional materials, lesson plans, assessment tools, and equipment maintenance tutorials specific to TLE specializations. The Division Office should also explore the feasibility of a mobile tool library or shared specialist technician service that schools can book for equipment repair and preventive maintenance, directly addressing the persistent challenge of non-functional equipment and the low rating for timely repair and replacement. This recommendation extends Pillar One's resource governance principles from the school level to the division level. Additionally, the Division Office should mandate and provide dedicated funding for short-term industry immersion programs for TLE teachers. The identified gap in training relevance to current TLE trends can only be addressed through direct exposure to contemporary industry practices, technologies, and standards. A structured industry immersion program, conducted during summer or semestral breaks, would enable teachers to update their technical competencies, establish partnership networks, and bring current industry knowledge directly into their classrooms. This recommendation directly addresses the professional development relevance gap identified in Pillar Two.

For the Department of Education: Central and Regional Offices. The Central Office, through the Bureau of Curriculum Development and the Bureau of Learning Resources, should conduct a comprehensive review of instructional time allocations for Technology and Livelihood Education across all grade levels. This review should be informed by empirical research on the time requirements of competency-based, hands-on technical-vocational instruction and should consider differentiated time allocations based on specialization requirements, grade level, and the intensity of hands-on skill development. The current one-size-fits-all approach, which allocates the same time to TLE as to academic subjects, is pedagogically unsound and systematically prevents full curriculum implementation. Furthermore, the Central Office should develop and fund a national TLE equipment maintenance and replacement program. TLE's resource requirements differ fundamentally from those of academic subjects, yet current funding mechanisms treat equipment as annual procurement items rather than assets requiring systematic lifecycle management. A dedicated funding stream for preventive maintenance, timely repair, and scheduled equipment replacement would address the most consistent finding across decades of Philippine TLE research: that teachers struggle not with the initial acquisition of resources but with their sustainability over time. Finally, the Commission on Higher Education, in collaboration with the Department of Education, should review and enhance pre-service teacher education curricula for TLE specializations. Beginning teachers must enter the profession with stronger competencies in resource improvisation, authentic assessment design, adaptive curriculum implementation, and equipment maintenance—precisely the areas where this study documents persistent challenges. Strengthening pre-service preparation would reduce the burden on school-based professional development and accelerate the trajectory from novice to competent practitioner.

For Future Researchers. Future research should employ longitudinal or intervention-based designs to track the impact of implementing specific components of the proposed School Leadership Support Action Plan over time. Experimental or quasi-experimental studies could measure changes in teacher efficacy, student competency mastery, equipment utilization rates, and instructional time utilization following targeted interventions such as the TLE Resource Governance Committee establishment, Tech-Talks program implementation, or block scheduling pilots. Such research would empirically test the theory of change articulated in this study and generate evidence regarding which interventions produce the greatest impact under which conditions. Additionally, future researchers should conduct qualitative phenomenological or multiple case studies to delve deeper into the lived experiences of TLE teachers navigating resource constraints, the decision-

making processes of school leaders as they allocate limited resources across competing priorities, and the negotiation dynamics between school leaders and division personnel regarding policy implementation and adaptation. These qualitative inquiries would provide rich contextual understanding to complement the quantitative findings of the present study. Researchers should also replicate this study in other divisions, regions, and school types, including private schools, technical-vocational high schools, and schools in geographically isolated and disadvantaged areas to improve generalizability and identify context-specific variations in leadership support and instructional challenges. Future studies should expand the variables investigated to include teacher burnout and attrition, the impact of specific leadership styles beyond instructional leadership, student achievement outcomes measured through competency-based assessments, and the cost-effectiveness of various resource governance and professional development models. Finally, future research should empirically investigate the proposed fifth dimension of instructional leadership, systemic advocacy, examining how school leaders engage with policy systems, with what strategies, and with what effects on instructional conditions and student outcomes. This theoretical extension, generated from the findings of the present study, requires further conceptual refinement, measurement development, and empirical validation.

PROPOSED ACTION PLAN

PROPOSED SCHOOL LEADERSHIP SUPPORT ACTION PLAN FOR TECHNOLOGY AND LIVELIHOOD EDUCATION (TLE) TEACHERS

IN SAN CARLOS CITY DIVISION

Rationale: This action plan is formulated based on the findings of the study “*School Leadership Support for Technology and Livelihood Education Teachers’ Instructional Challenges.*” The data revealed that while TLE teachers perceive leadership support in classroom monitoring and performance feedback as Very High, significant challenges persist in resource provision, facility adequacy, and time allocation for curriculum delivery. Furthermore, professional development needs more alignment with current TLE trends. This plan aims to systematize and strengthen leadership support through targeted, sustainable strategies.

Vision: To develop a responsive and sustainable support system where school leaders empower TLE teachers with the necessary resources, professional growth opportunities, and instructional guidance to deliver high-quality, competency-based education.

Mission: To implement a structured, collaborative, and evidence-based action plan that addresses the identified instructional challenges through enhanced leadership practices, improved resource management, and continuous professional learning.

| Strategic Objective | Key Activities | Success Indicators | Timeline | Persons Involved | Resources Needed |
|--|---|---|---|---|---|
| 1. Enhance Resource Provision & Management | 1.1 Conduct a biannual TLE Resource Needs Assessment (tools, materials, consumables). 1.2 Establish a TLE Priority Procurement System with a dedicated annual budget line. 1.3 Create a School-Based Equipment Maintenance & Repair Protocol (with assigned technician or teacher-coordinator). 1.4 Develop a Digital Inventory & Booking System for shared tools and labs. | <ul style="list-style-type: none"> • 95% of requested priority items are procured within the academic year. • Equipment repair turnaround time is reduced to under 2 weeks. • Teacher satisfaction (re: resource access) increases by 20% in year-end survey. | Quarterly Ongoing By Q3, then ongoing By Q2 | School Heads, TLE Dept. Chair, Property Custodian, Teachers | Budget allocation, MOOE funds, inventory software, partnership with local tech-voc institutes |
| 2. Strengthen Differentiated Professional Development | 2.1 Implement a TLE PD Needs Analysis based on teacher experience (novice vs. veteran) and specialization. 2.2 Launch "TLE Tech-Talks" – monthly sessions on current industry trends (partnering with TESDA/local industries). 2.3 Institutionalize Peer Coaching & Learning Walks focused on hands-on teaching strategies. 2.4 Sponsor attendance at national TLE/ICTLE conferences for at least 2 teachers annually. | <ul style="list-style-type: none"> • 100% of teachers complete at least one industry-relevant training per year. • A repository of shared lesson plans and materials from "Tech-Talks" is created. • Increased teacher-reported confidence in teaching updated competencies. | Biannual Needs Analysis Monthly Per Grading Period Annually | School Heads, Master Teachers, TLE Supervisors, Industry Partners | PD funds, training venues, expert honoraria, online collaboration platforms |
| 3. Optimize Curriculum Implementation & Time Management | 3.1 Lead a curriculum compacting review with TLE teachers to identify essential competencies vs. time constraints. 3.2 Advocate for and schedule block time or extended periods for TLE | <ul style="list-style-type: none"> • A revised, streamlined scope-and-sequence document for each TLE track is approved. | By Q2 Before each school year By Q4 (Pilot) | Curriculum Chair, TLE Teachers, School Scheduling Committee | Curriculum guides, scheduling software, PBL template, sample projects |

| Strategic Objective | Key Activities | Success Indicators | Timeline | Persons Involved | Resources Needed |
|---|--|--|---|--------------------------------------|---|
| | | partnership is established per school. | | | |
| 6. Monitor, Evaluate, and Sustain the Plan | 6.1 Form a School Leadership Support (SLS) Steering Committee (admin, teachers, possibly a student/parent rep). 6.2 Conduct biannual review meetings using data from teacher surveys, observation reports, and resource inventories. 6.3 Document and share best practices within the division and at learning action cell (LAC) sessions. | <ul style="list-style-type: none"> • Steering Committee meets quarterly. • An annual SLS Implementation Report is published. • At least one best practice is presented at the Division-wide TLE Congress. | Committee: Ongoing Reviews: Mid-year & Year-end Annually | Steering Committee, All Stakeholders | Monitoring & Evaluation (M&E) framework, report templates, presentation materials |

Table 19 presents the Proposed School Leadership Support Action Plan for TLE Teachers in San Carlos City Division. This matrix translates the study's findings into a structured, actionable roadmap organized by strategic objectives, key activities, success indicators, timelines, responsible persons, and required resources. It aims to systematically address identified gaps in resource provision, professional development, curriculum implementation, and facility adequacy through targeted leadership interventions.

| Activity | Q1 | Q2 | Q3 | Q4 |
|---|--------|--------|--------|--------|
| Needs Assessment & Planning | ██████ | ████ | | |
| Procurement System & Budget Advocacy | ████ | ██████ | ████ | ████ |
| PD Program Launch (“Tech-Talks”) | | ██████ | ██████ | ██████ |
| Curriculum Compacting & Scheduling | ██ | ██████ | ████ | |
| Supervision Tool Calibration | ██████ | | | |
| Facilities Audit & Partnership Building | ██████ | ████ | ████ | ████ |
| PBL Module Development & Piloting | | ██ | ██████ | ██████ |
| Biannual Review & Reporting | | ██████ | | ██████ |

Figure 2. IMPLEMENTATION TIMELINE (GANTT CHART OVERVIEW)

This proposed action plan translates the research findings into a concrete, actionable roadmap. It emphasizes systemic solutions over temporary fixes, focusing on sustainable resource management, differentiated teacher development, and collaborative leadership. By implementing this plan, school leaders in San Carlos City can proactively address the core instructional challenges faced by TLE teachers, thereby directly enhancing the quality of hands-on, skills-based education for all students. The success of this plan hinges on committed leadership, active teacher participation, and continuous monitoring for improvement.

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