



Article

Teaching-Learning Processes in Business Technology: A Study of TLE Instruction at Dinadiawan National High School

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Abstract

Business Technology under the Technology and Livelihood Education (TLE) curriculum plays a crucial role in developing learners' practical skills, work ethics, and entrepreneurial competencies. This qualitative study examined the teaching-learning processes in Business Technology at Dinadiawan National High School, focusing on instructional practices, learner engagement, and contextual challenges. Using a qualitative descriptive design, data were gathered through semi-structured interviews with TLE teachers and focus group discussions with learners. Thematic analysis revealed four key themes: skills-oriented and learner-centered instruction, experiential learning through practical tasks, teacher facilitation and feedback in skills development, and constraints affecting effective TLE instruction. Findings indicate that hands-on activities, demonstrations, and real-world simulations enhanced learner engagement and skill acquisition. Teacher guidance and feedback were essential in supporting task accuracy and confidence. However, limited instructional time, inadequate equipment, and large class sizes constrained consistent skills practice. The study concludes that effective teaching-learning processes in Business Technology rely on experiential, learner-centered pedagogy supported by adequate institutional resources. Implications for TLE instruction, school leadership, and curriculum implementation are discussed.

Keywords: *business technology; TLE instruction; teaching-learning process; skills-based education; qualitative study*



1. Introduction

Technology and Livelihood Education (TLE) serves as a key learning area in Philippine secondary education, aimed at equipping learners with practical skills, entrepreneurial knowledge, and work-related competencies essential for employment and self-reliance. Within TLE, Business Technology focuses on developing learners' abilities in basic business operations, financial literacy, and technology-supported enterprise tasks. Effective teaching-learning processes in this subject are therefore central to preparing learners for real-world economic participation.

Contemporary TVET and skills-based education literature emphasizes learner-centered, experiential, and competency-based instruction as essential for meaningful skills development. Teaching approaches that integrate demonstrations, hands-on practice, and real-life simulations enable learners to apply theoretical concepts to authentic tasks, strengthening both competence and confidence. In Business Technology, the alignment of instruction with practical outcomes is critical, as learners are expected not only to understand concepts but also to perform tasks accurately and responsibly.

Despite its importance, TLE instruction in public secondary schools—particularly in rural contexts—faces persistent challenges related to limited resources, time constraints, and varying learner readiness. These factors influence how teachers enact instructional practices and how learners experience the teaching-learning process. While previous studies have examined TLE and TVET broadly, there remains limited empirical research focusing specifically on the teaching-learning processes in Business Technology at the school level.

This study examined the teaching-learning processes in Business Technology under the TLE program at Dinadiawan National High School. By exploring teachers' instructional practices and learners' experiences, the study provides insights into how Business Technology instruction supports skills development and identifies challenges affecting effective implementation.

2. Objectives of the Study

This study aimed to examine the teaching-learning processes in Business Technology at Dinadiawan National High School. Specifically, it sought to:

1. Describe instructional practices used in Business Technology under the TLE program;
2. Examine how practical and experiential learning activities are implemented;
3. Explore learners' experiences of engagement and skills development; and
4. Identify challenges affecting effective Business Technology instruction.

3. Methodology

3.1 Research Design

A qualitative descriptive research design was employed to capture in-depth perspectives on teaching-learning processes in Business Technology. This approach allowed for a detailed examination of instructional practices and learner experiences within their natural classroom context.

3.2 Participants and Research Setting

Participants included TLE-Business Technology teachers and junior high school learners at Dinadiawan National High School, Dipaculao, Aurora. Teachers were selected based on their direct involvement in Business Technology instruction, while learners were chosen from classes where



practical activities were regularly conducted. Purposive sampling ensured relevance and depth of data.

3.3 Data Collection

Data were collected through semi-structured interviews with teachers and focus group discussions with learners. Interview guides focused on instructional strategies, practical activities, learner participation, assessment practices, and perceived challenges. All sessions were conducted with informed consent, audio-recorded, and transcribed verbatim.

3.4 Data Analysis

Thematic analysis was used to analyze the data, involving coding, categorization, and theme development. Trustworthiness was ensured through triangulation of teacher and learner data, member checking, and peer debriefing.

4. Results and Findings

Analysis yielded four major themes describing teaching–learning processes in Business Technology.

Theme 1: Skills-Oriented and Learner-Centered Instruction

Teachers reported prioritizing skills-oriented instruction by using demonstrations, guided practice, and task-based activities as central components of Business Technology lessons. Demonstrations were used to model correct procedures and techniques, while guided practice allowed learners to apply these procedures with teacher support. Task-based activities further encouraged learners to perform business-related tasks independently or collaboratively, helping them develop practical competencies and problem-solving skills.

Learners described lessons as more engaging and meaningful when they were actively involved in performing business-related tasks rather than listening to lectures alone. They noted that hands-on activities made learning more enjoyable and easier to understand, as they could immediately apply concepts and see tangible results of their work. This active participation fostered greater interest, confidence, and responsibility among learners, contributing to a more effective and learner-centered teaching-learning process in Business Technology.

One teacher stated, *“Mas natututo ang learners kapag sila mismo ang gumagawa ng activities.”* A learner shared, *“Mas naiintindihan namin ang lesson kapag actual naming ginagawa.”*

These responses indicate that learner-centered, skills-focused instruction enhances engagement by positioning learners as active participants in the learning process rather than passive recipients of information. When learners are given opportunities to perform tasks, collaborate with peers, and make decisions during activities, they develop a sense of ownership over their learning. This active involvement encourages sustained attention and motivation, as learners see the direct relevance of lessons to real-life applications in Business Technology.

Furthermore, skills-focused instruction allows learners to learn by doing, which supports deeper understanding and practical competence. By engaging in hands-on tasks and problem-solving activities, learners are able to construct knowledge through experience and reflection. This approach not only increases engagement but also builds confidence and responsibility, as learners recognize their role in achieving learning outcomes. As a result, learner-centered instruction fosters a more dynamic and meaningful teaching–learning process that supports both engagement and skill mastery.

Theme 2: Experiential Learning Through Practical Business Tasks



Participants emphasized experiential learning through activities such as simple bookkeeping exercises, simulated transactions, and group business projects. Learners reported that these tasks helped them understand how concepts apply to real-life business situations.

A learner remarked, *“Parang totoong negosyo ang ginagawa namin.”* Teachers observed improved participation during hands-on sessions.

Experiential learning strengthens skills acquisition by directly linking theoretical knowledge to authentic practice, thereby reinforcing the practical and applied nature of Business Technology instruction. When learners engage in real-world tasks such as simulated business transactions, bookkeeping exercises, and project-based activities, they are able to apply abstract concepts to concrete situations. This connection helps learners understand not only *what* to do but also *why* certain procedures and decisions are necessary in business contexts, leading to deeper comprehension and retention of skills.

Moreover, experiential learning promotes active involvement and reflective thinking, which are essential for meaningful skill development. Through hands-on practice, learners encounter realistic challenges that require problem-solving, decision-making, and collaboration competencies that are central to Business Technology education. As learners reflect on their performance and receive feedback, they refine their skills and develop greater confidence in applying what they have learned. In this way, experiential learning transforms the classroom into a simulated work environment, ensuring that Business Technology instruction remains relevant, practical, and aligned with real-world demands.

Theme 3: Teacher Facilitation and Feedback in Skills Development

Teachers highlighted their role in guiding learners during tasks, monitoring performance, and providing corrective feedback. Learners appreciated immediate feedback, noting that it helped them improve accuracy and confidence.

One learner noted, *“Kapag may feedback ang teacher, mas nagiging maayos ang gawa namin.”*

The findings of this study suggest important pedagogical implications for Business Technology instruction under the TLE program. Teachers are encouraged to sustain and further enhance experiential and task-based instructional strategies that promote authentic skills development. By consistently integrating hands-on activities, simulations, and real-world business tasks into lessons, teachers can help learners apply theoretical knowledge to practical contexts, thereby strengthening competence, confidence, and work-related skills essential to Business Technology education.

At the level of school leadership, the study highlights the need for institutional support to strengthen TLE instruction. School leaders may play a crucial role by ensuring adequate provision of instructional resources, equipment, and learning materials necessary for effective skills training. In addition, supportive scheduling arrangements that allow sufficient time for practical activities can enable teachers to implement experiential learning strategies more consistently, ultimately improving the quality of the teaching–learning process.

From a curricular perspective, the findings point to the importance of flexibility in Business Technology instruction. Curriculum planners may emphasize adaptable curricular structures that support competency-based and practice-oriented learning rather than rigid content coverage. Allowing flexibility in pacing, assessment, and instructional approaches can help align curriculum goals with learners’ needs and real-world skill demands, ensuring that Business Technology education remains relevant, responsive, and effective.



Theme 4: Challenges in Implementing Effective TLE Instruction

Despite positive practices, participants identified challenges such as limited equipment, insufficient instructional time, and large class sizes. Teachers expressed difficulty in ensuring equal hands-on opportunities for all learners.

A teacher shared, *“Hindi lahat ay sabay-sabay nakakapag-practice dahil kulang ang gamit.”*

These challenges reflect contextual constraints that affect the consistency and depth of experiential learning in Business Technology.

5. Discussion

The findings demonstrate that effective teaching–learning processes in Business Technology are grounded in learner-centered, experiential, and skills-oriented pedagogy. Hands-on tasks and simulations promote engagement and practical competence, aligning with principles of competency-based and TVET education.

Teacher facilitation emerged as a key factor in translating instructional activities into meaningful learning experiences. Guided practice and feedback support accuracy, confidence, and skill mastery, which are essential outcomes in Business Technology education.

However, the challenges identified underscore the influence of institutional conditions on instructional effectiveness. Limited resources and time constraints restrict sustained skills practice, particularly in rural school contexts. Addressing these constraints is necessary to fully realize the goals of TLE instruction.

6. Conclusions

This study concludes that teaching-learning processes in Business Technology at Dinadiawan National High School are most effective when instruction is learner-centered, experiential, and skills-oriented. Practical activities and teacher facilitation enhance engagement and skills development. Sustaining these practices requires institutional support to address contextual challenges.

7. Implications of the Study

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Conflicts of Interests

The author declares no conflict of interest.

References

Abana, A (2021). A Scrutiny of K-12 Strands and the Learning Program Vis-à-vis its Academic Performance. *Psychology and Education Journal*. 58 (2): 7977-7984

Abrahams, I., & Reiss, M. J. (2012). Practical work: Its effectiveness in primary and secondary schools in England. *Journal of Research in Science Teaching*, 49(8), 1035–1055. <https://doi.org/10.1002/tea.21036>

Andres, A. (2019). Achievement Goals and Mathematics Achievement of the Senior High School Students. *International Journal of English and Education*, 8 (2).

Andres, A. (2023). Establishing Quality Instrument for the Summative Assessment of Pre-Service Elementary Teachers. *JETT*. 14 (3), 9-16).

Andres, A.D. (2022). Metacognition and Performance in Mathematical Problem-Solving Among Bachelor of Elementary (BEED) Pre-service Teachers. *Central European Management Journal*, 30 (4). 86-95.

Antonio, A. (2021). Syntactical Scrutiny: Inaccuracies in the Lesson Planning of Non- Language Pre Service Teachers. *International Journal of Arts, Sciences and Education*,

Balog, P., & Gonzales, E. (2021). From Linguistic Landscapes to Teaching Resources: A Case of Some Rural Areas in the Province of Quezon. *International Journal of Arts, Sciences and Education*, 1(2), 23–44.



Banares, A. J. (2022). Reinterpreting Sonnet 18 by William Shakespeare through Stylistic Analysis. *International Journal of Arts, Sciences and Education*, 3(July Special Issue), 189–204. <https://ijase.org/index.php/ijase/article/view/163>.

Braun, V., & Clarke, V. (2006). Using thematic analysis in psychology. *Qualitative Research in Psychology*, 3(2), 77–101. <https://doi.org/10.1191/1478088706qp063oa>

Bybee, R. W. (2013). *The BSCS 5E instructional model: Creating teachable moments*. NSTA Press.

Creswell, J. W., & Poth, C. N. (2018). *Qualitative inquiry and research design: Choosing among five approaches* (4th ed.). Sage.

Darling-Hammond, L., Flook, L., Cook-Harvey, C., Barron, B., & Osher, D. (2020). Implications for educational practice of the science of learning and development. *Applied Developmental Science*, 24(2), 97–140. <https://doi.org/10.1080/10888691.2018.1537791>

Domingo- Alejo, J. (2022). Delving The Perceived Administrator’s Personality in Basic Education Unit. *CEMJ*. 30 (4), 2052-2060.

Domingo- Alejo, J. (2023). Exploring the Level of Morale of Teachers in Public Basic Education Unit. *Rivista Italiana di Filosofia Analitica Junior*. 14 (1), 482-496.

Domingo-Alejo, J. (2024). AI Integrated Administration tool design with ML Technology for Smart Education System. 2024 4th International Conference on Advance Computing and Innovative Technologies in Engineering (ICACITE). 1423-1428.

Hmelo-Silver, C. E., Duncan, R. G., & Chinn, C. A. (2007). Scaffolding and achievement in problem-based and inquiry learning: A response to Kirschner et al. *Educational Psychologist*, 42(2), 99–107. <https://doi.org/10.1080/00461520701263368>

Kolb, D. A. (2015). *Experiential learning: Experience as the source of learning and development* (2nd ed.). Pearson Education.

Lincoln, Y. S., & Guba, E. G. (1985). *Naturalistic inquiry*. Sage.

OECD. (2016). *Education at a glance 2016: OECD indicators*. OECD Publishing. <https://doi.org/10.1787/eag-2016-en>

