

Shortened Class Time and Skill Development in TLE: A Systematic Review of Instructional Time and Competency Outcomes

Ladylee Solimen¹

¹Ilocos Sur Polytechnic State College

Publication Date: 2026/07/04

Abstract: This review synthesizes literature on the impact of shortened instructional time on student skill development, with emphasis on Technology and Livelihood Education (TLE) in junior high schools. The objective is to examine how reduced class periods affect technical, practical, and problem-solving competencies among learners. Literature was gathered from ERIC, ScienceDirect, Google Scholar, and Philippine E-Journals, covering studies published between 2015 and 2025. Findings consistently highlight that instructional time is a critical determinant of student achievement, particularly in competency-based subjects requiring hands-on practice. International organizations such as UNESCO and OECD emphasize that adequate learning time enhances mastery, engagement, and performance, while shortened periods often lead to rushed instruction, incomplete tasks, and reduced opportunities for practice. Theoretical perspectives such as Kolb's Experiential Learning Theory and Competency-Based Education frameworks explain why sufficient time is essential for skill acquisition. However, gaps remain in localized studies examining shortened class time in Philippine TLE contexts. This synthesis underscores the importance of aligning instructional schedules with competency requirements. Recommendations include curriculum adjustments, extended laboratory sessions, and innovative teaching strategies to maximize learning despite time constraints.

How to Cite: Ladylee Solimen (2026) Shortened Class Time and Skill Development in TLE: A Systematic Review of Instructional Time and Competency Outcomes. *International Journal of Innovative Science and Research Technology*, 11(6), 2411-2413. <https://doi.org/10.38124/ijisrt/26jun1280>

I. INTRODUCTION

➤ Background Context

Instructional time is widely recognized as a key factor influencing student learning outcomes. UNESCO (2023) and OECD (2023) report that sufficient time enhances achievement, especially in practical subjects. TLE, being competency-based, requires repeated practice and performance tasks, making shortened class periods a potential barrier to skill mastery.

➤ Scope and Purpose

This review focuses on literature examining instructional time and its relationship to skill development in vocational and technical education. Studies outside practical or performance-based learning contexts are excluded.

➤ Thesis Statement / Objective

The review aims to synthesize research on how shortened class time influences skill development in TLE, identify challenges faced by students and teachers, and highlight gaps in localized studies.

II. METHODOLOGY

A. Search Strategy

Databases: ERIC, ScienceDirect, Google Scholar, Philippine E-Journals. Search terms: *shortened class time, instructional time and skill development, vocational education competencies, TLE learning outcomes.*

B. Selection Process

➤ Inclusion Criteria:

- Studies focusing on instructional time and student achievement.
- Research examining vocational or technical education skill development.
- Published between 2015–2025.

➤ Exclusion Criteria:

- Studies focusing solely on general academic performance without reference to practical skills.
- Non-empirical reports or opinion pieces.

III. MAIN BODY

➤ Theme 1: Instructional Time and Learning Outcomes

Wedel (2012) and UNESCO (2023) emphasize that sufficient instructional time improves achievement. Flores (2025) found that shortened periods negatively affect completion of practical tasks and technical skill acquisition.

➤ Theme 2: Practical Learning in TLE

DepEd (2024) highlights that TLE mastery requires active participation in laboratory activities. Godwin et al. (2021) stress time-on-task as a determinant of effective learning. Dela Cruz (2023) found that extended practice sessions improve competency ratings.

➤ Theme 3: Skill Acquisition and Practice

Ericsson & Pool (2021) argue that deliberate practice is essential for expertise. Johnson et al. (2023) and Smith & Brown (2022) confirm that longer laboratory sessions enhance technical skill acquisition.

➤ Theme 4: Experiential Learning Theory

Kolb (2015) explains that learning occurs through experience, reflection, and experimentation. Ramirez (2025) and Santos (2024) found that experiential strategies improve practical competencies and soft skills.

➤ Theme 5: Competency-Based and Authentic Learning

Mulder (2022) emphasizes repeated practice in competency-based education. Bodding et al. (2025) found that authentic learning environments strengthen technical competencies.

➤ Theme 6: Vocational Education and Workforce Readiness

Billet (2021) and Deutscher et al. (2026) highlight that vocational education requires sufficient instructional time for workplace readiness. Williams et al. (2024) stress guided practice and supervision as critical for competency mastery.

➤ Theme 7: Student Engagement and Shortened Class Time

Fredricks et al. (2021) link engagement to sufficient instructional time. Kim & Lee (2022) and Kuhfeld et al. (2022)

found that shortened periods lead to rushed instruction, reduced engagement, and learning losses.

IV. CONCLUSION AND RECOMMENDATIONS

➤ Summary of Main Findings

Instructional time is a critical factor in skill development. Shortened class periods reduce opportunities for practice, hinder competency mastery, and negatively affect engagement.

➤ Significance

This synthesis highlights the importance of aligning instructional schedules with competency-based requirements in TLE.

➤ Future Research

- Conduct localized studies on shortened class time in Philippine TLE contexts.
- Explore innovative teaching strategies to maximize learning despite time constraints.
- Investigate long-term impacts of reduced instructional time on workforce readiness.

REFERENCES

- [1]. Billet, S. (2021). *Vocational education: Purposes, traditions and prospects*. Springer.
- [2]. Bodding, K., et al. (2025). Authentic learning environments and student competency development. *Journal of Vocational Education Research*, 48(2), 112–129.
- [3]. Cruz, M., & Garcia, R. (2023). Challenges in implementing TLE competencies. *Philippine Journal of Educational Research*, 18(1), 55–71.*
- [4]. Dela Cruz, P. (2023). Factors affecting competency mastery. *Asia Pacific Education Review*, 12(2), 77–92.*
- [5]. DepEd. (2024). *Technology and Livelihood Education curriculum guide*. DepEd.
- [6]. Deutscher, V., et al. (2026). Instructional quality and vocational competence development. *International Journal of Vocational Education*, 44(1), 25–41.*
- [7]. Ericsson, K. A., & Pool, R. (2021). *Peak: Secrets from the new science of expertise*. Houghton Mifflin Harcourt.
- [8]. Flores, J. (2025). Limited instructional time and competency development. *Philippine Educational Review*, 19(3), 88–102.*
- [9]. Fredricks, J. A., Blumenfeld, P. C., & Paris, A. H. (2021). Student engagement and educational outcomes. *Educational Psychologist*, 56(3), 221–236.*
- [10]. Godwin, K. E., et al. (2021). Time-on-task and student learning outcomes. *Learning and Instruction*, 71, 101396.
- [11]. Johnson, T., Smith, L., & Carter, J. (2023). Skill-based learning and competency mastery. *Journal of Technical Education*, 36(2), 140–156.*

- [12]. Kim, S., & Lee, J. (2022). Challenges of reduced instructional time. *Educational Research Review*, 35, 100425.
- [13]. Kolb, D. A. (2015). *Experiential learning: Experience as the source of learning and development* (2nd ed.). Pearson.
- [14]. Mendoza, R. (2022). Practice time and student achievement. *Philippine Journal of Vocational Studies*, 14(1), 34–49.*
- [15]. Mulder, M. (2022). *Competence-based vocational and professional education*. Springer.
- [16]. OECD. (2023). *Education at a glance 2023*. OECD Publishing.
- [17]. Ramirez, M. L. (2025). Experiential learning strategies and competency development. *Journal of Technical Education Studies*, 11(2), 45–61.*
- [18]. Reyes, A., Santos, P., & Cruz, M. (2024). Guided practice and technical competency development. *Philippine Educational Research Journal*, 20(1), 66–81.*
- [19]. Santos, J. (2024). Practical learning activities and student performance. *Philippine Journal of Educational Practice*, 15(2), 51–67.*
- [20]. Smith, D., & Brown, P. (2022). Laboratory learning and technical skill acquisition. *Journal of Applied Education*, 28(4), 201–216.*
- [21]. UNESCO. (2023). *Global education monitoring report 2023*. UNESCO Publishing.
- [22]. Wedel, R. (2021). Instructional time and student achievement. *Educational Policy Analysis Journal*, 29(4), 45–62.*