



# PEDAGOGICAL COMPETENCE OF TECHNOLOGY AND LIVELIHOOD EDUCATION AND TECHNICAL VOCATIONAL LIVELIHOOD TEACHERS : A PHENOMENOLOGICAL STUDY

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## ABSTRACT

*This study explores the multiple dimensions of pedagogical competence among Technology and Livelihood Education (TLE) and Technical-Vocational Livelihood (TVL) teachers in the context of the post-pandemic educational environment. The COVID-19 pandemic posed unprecedented challenges to the delivery of education worldwide, particularly in subjects like TLE and TVL that require hands-on, skills-based instruction. This research employed a qualitative method grounded in Appreciative Inquiry (AI) to investigate how these teachers adapted, innovated, and enhanced their pedagogical strategies in response to the evolving demands of the educational landscape. In-depth interviews were conducted with five junior high school TLE teachers and five senior high school TVL teachers from selected public schools in Davao del Sur, Philippines. The study identified several key themes influencing pedagogical competence: integration of technology and digital tools, adaptability and resilience, professional development, alignment of curriculum with real-world needs, access to resources and collaborative support systems, and the adoption of student-centered instructional approaches. These findings were used to construct a conceptual framework that characterizes pedagogical competence among TLE and TVL teachers in the post-pandemic era. The study contributes to broader discussions on educational resilience, innovation, and teacher effectiveness, and underscores the importance of continuous professional learning and systemic support in shaping responsive and relevant teaching practices in the wake of global crises.*

**KEYWORDS:** *Pedagogical Competence, TLE, TVL, Post-Pandemic Education, Appreciative Inquiry, Blended Learning, Teacher Development*

## INTRODUCTION

The global education system faced unprecedented disruption due to the COVID-19 pandemic. The rapid shift from face-to-face instruction to remote, modular, and blended learning required teachers to overhaul traditional pedagogical approaches and develop new strategies to meet students' needs. In the Philippines, Technology and Livelihood Education (TLE) and Technical-Vocational Livelihood (TVL) subjects presented unique challenges, as these areas traditionally emphasize experiential, hands-on learning. TLE and TVL are not only core components of the Philippine secondary education curriculum but also pivotal in equipping students with practical and technical skills needed for employment or entrepreneurship after graduation.

The pedagogical competence of teachers plays a critical role in delivering effective instruction and ensuring meaningful learning experiences. Pedagogical competence includes a teacher's ability to design instruction, engage learners, implement varied teaching strategies, integrate technology, manage the classroom, and assess learning outcomes. While pedagogical competence has been extensively studied in general education, limited research has focused specifically on how TLE and TVL teachers navigated the complexities of post-pandemic instruction.

Given the practical nature of TLE and TVL education, the pandemic disrupted access to equipment, laboratories, and real-world application of skills. Teachers had to innovate and adapt quickly, often with minimal resources and support. This study aims to identify the dimensions of pedagogical competence that emerged among TLE and TVL teachers in the post-pandemic context. It also seeks to provide insights into the strategies they employed, the support systems they leveraged, and the innovations they initiated.

This research is grounded in the theoretical frameworks of Jerome Bruner's Constructivist Theory and Medley's Competency Model. Bruner emphasized the importance of learner-centered approaches and scaffolded instruction, while Medley highlighted components of teacher competence such as professionalism, instructional planning, delivery, and assessment. These frameworks informed the study's investigation into how TLE and TVL teachers conceptualized and practiced pedagogical competence in response to the challenges and opportunities of the post-pandemic educational environment.

The study aligns with Sustainable Development Goal 4 (Quality Education) by focusing on improving the quality of teaching and learning processes. It contributes to the body of knowledge that informs educational policy, teacher professional development,



and curriculum design, particularly in technical and vocational education.

## METHODS

### Research Design

This study utilized a qualitative research design framed within the Appreciative Inquiry (AI) approach. AI is a strength-based methodology that focuses on identifying and amplifying positive practices, innovations, and aspirations. It contrasts with deficit-based models by emphasizing what works well, thus fostering engagement, creativity, and forward-thinking.

### Participants

The study involved ten participants—five TLE teachers from junior high school and five TVL teachers from senior high school—selected through purposive sampling. Participants were drawn from four public schools in Davao del Sur, chosen based on accessibility, relevance, and diversity of experiences. Inclusion criteria required participants to have at least two years of teaching experience in TLE or TVL and a willingness to share detailed reflections on their pedagogical practices.

### Data Collection

Data were collected through semi-structured in-depth interviews (IDIs), guided by an interview protocol developed and validated by a panel of educational experts. Interviews were conducted face-to-face while adhering to health and safety protocols. Each interview lasted between 45 and 60 minutes and was audio-recorded with participant consent. Field notes and observational data complemented the interview transcripts.

### Ethical Considerations

Ethical approval was secured from the University of Mindanao Ethics Review Committee. Participants signed informed consent forms, and their identities were anonymized to protect confidentiality. Participation was voluntary, and respondents had the right to withdraw at any stage without consequence.

### Data Analysis

Thematic analysis was used to analyze the interview data, guided by the framework of Miles and Huberman, which includes data reduction, data display, and conclusion drawing. Transcripts were coded inductively, and recurring patterns were organized into themes. Data triangulation, peer debriefing, and member checking were employed to enhance trustworthiness and credibility.

## RESULTS AND DISCUSSION

Thematic analysis of the interview data yielded several interconnected themes that together outline the dimensions of pedagogical competence among TLE and TVL teachers in the post-pandemic setup.

**1. Technology Integration and Digital Proficiency** Participants reported a significant increase in their use of educational technology tools. Teachers described transitioning from basic

PowerPoint use to more advanced platforms like Google Classroom, Zoom, and interactive simulations. They emphasized the importance of digital literacy in maintaining student engagement and ensuring instructional continuity during school closures.

**2. Adaptability and Resilience** Teachers demonstrated high levels of adaptability, often reshaping their instructional approaches to accommodate students' varying access to internet and devices. Many adopted blended learning models, combining printed modules with synchronous and asynchronous online sessions. The ability to remain flexible and open to change emerged as a critical dimension of pedagogical competence.

**3. Professional Development and Lifelong Learning** All participants underscored the importance of ongoing professional development. They participated in webinars, online training programs, and peer-led workshops. Teachers expressed that their willingness to learn new methods and tools significantly improved their teaching effectiveness during and after the pandemic.

**4. Curriculum Relevance and Responsiveness** Participants highlighted the need to align curriculum content with current industry standards and the realities of the pandemic. Teachers revised learning modules to include real-life applications, such as home-based food production or basic computer repairs, enabling students to acquire practical skills despite limited access to school facilities.

**5. Collaborative and Supportive Networks** Teachers leaned on their professional networks for support and resource sharing. Peer mentoring, team teaching, and participation in online forums facilitated exchange of strategies and materials. These networks played a key role in enhancing pedagogical practices and fostering a sense of community.

**6. Student-Centered Pedagogy** Understanding and responding to students' individual needs was a recurring theme. Teachers adapted lesson pacing, differentiated instruction, and provided personalized feedback. Emphasis was placed on emotional support and maintaining communication with learners through messaging apps and phone calls.

**7. Reflective Practice and Innovation** Participants engaged in regular self-assessment and reflection to refine their teaching methods. They reported experimenting with different instructional formats, including video tutorials, take-home projects, and digital portfolios. Reflection allowed them to identify what worked and make evidence-based improvements.

**Framework for Pedagogical Competence** The study developed a conceptual framework comprising three domains:

- **Technological Competence:** Mastery and innovative use of digital tools.
- **Instructional Agility:** Flexibility in planning, delivery, and assessment.
- **Professional Agency:** Commitment to growth, collaboration, and reflective improvement.

This framework illustrates that pedagogical competence is a dynamic, multidimensional construct shaped by context, resources, and personal initiative.



## CONCLUSION

The research revealed that TLE and TVL teachers in Davao del Sur responded to the challenges of the pandemic with adaptability, innovation, and resilience. Their pedagogical competence was strengthened through technology integration, continuous learning, and a renewed focus on student-centered practices. The findings contribute to understanding how vocational educators can sustain quality education in times of crisis and transition.

## RECOMMENDATIONS

- **For Educators:** Engage in reflective practice and seek out professional development opportunities.
- **For School Leaders:** Provide infrastructure and institutional support for blended learning and teacher training.
- **For Policymakers:** Develop tailored training programs for TLE and TVL educators and allocate resources for instructional technology.
- **For Researchers:** Explore longitudinal impacts of pedagogical adaptations and expand studies to include other regions and disciplines.

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