International Journal on Culture, History, and Religion
https://ijchr.net | eISSN: 3028-1318

Received: May 18, 2025 | Accepted: July 5, 2025, | Published: July 22, 2025
Volume 7 Special Issue 2 | doi: https://doi.org/10.63931/ijchr.v7iSI2.222

Article

From Tradition to Innovation: A Study on the Self-Efficacy and Competency of Pre-Service TLE Educators in Blended Learning

Matilde L. Tijtgat
Iloilo Science and Technology University
Correspondence: matilde.tijtgat@isatu.edu.ph

Abstract

This study assessed the self-efficacy and competency of pre-service Technology and Livelihood Education (TLE) teachers in the context of blended learning within selected State Universities and Colleges (SUCs) in Iloilo. Anchored in the historical evolution of TLE from colonial vocational education to a culturally rooted K to 12 components, the research aimed to support the development of a manual for distance education that reflects both contemporary demands and socio-cultural foundations. Employing Richey and Klein's (2014) Design and Development model, the study utilized a validated online survey administered to 138 fourth-year BTLEd students, focusing on four domains: content knowledge, blended technological-pedagogical-content knowledge, student-teacher interaction, and learner management. The results revealed a high level of self-efficacy across all domains, with the highest confidence shown in learner motivation and content delivery. However, challenges persisted in formulating objectives aligned with MELCs, integrating learning platforms into instruction, and handling disengaged learners. A research-based manual was then developed to address these specific competency gaps, evaluated by experts for relevance and clarity. Findings underscored the importance of improving teacher education through contextualized support, technological training, and responsive pedagogies, reaffirming the need to align pre-service preparation with the realities of distance education. This study not only contributes to improving TLE instruction under blended modalities but also reinforces the cultural and historical grounding of teacher education in the Philippines.

Keywords: *self-efficacy, pre-service teachers, Technology and Livelihood Education, blended learning, culturally grounded pedagogy*

Suggested citation:
Tijtgat, M. (2025). From Tradition to Innovation: A Study on the Self-Efficacy and Competency of Pre-Service TLE Educators in Blended Learning. *International Journal on Culture, History, and Religion, 7*(SI2), 497-513. https://doi.org/10.63931/ijchr.v7iSI2.222

Introduction

Historically, the training of pre-service teachers in the Philippines has centered on traditional, face-to-face pedagogical models deeply rooted in colonial education structures that prioritized formal classroom settings and textbook-driven instruction. From establishing the Philippine Normal School during the American occupation in 1901 to developing the Teacher Education Institutions (TEIs) post-World War II, teacher preparation has largely emphasized in-person practicums and classroom management within brick-and-mortar schools. The COVID-19 pandemic, however, has posed an unprecedented disruption to this historically grounded framework.

COVID-19, the pandemic that changed so much of the world, created incomparable challenges for people worldwide. Education is among the sectors most heavily affected due to the immediate closure of schools and learning centers. As a solution, the Department of Education in the Philippines adopted flexible learning delivery modalities *"deemed appropriate in the context of the local conditions"* (DepEd Order No. 012, 2020). This sudden change of modality required teaching and learning methods, strategies, and approaches dissimilar to those rooted in the long-standing, conventional classroom environment (Northrup, 1997). It also demanded new competencies from in-service and pre-service teachers, especially in handling responsibilities within distance learning communities (Simone, 2006).

These structural changes placed pre-service teachers' self-efficacy and competency under strain, as critical dimensions of teacher preparation were affected. According to Carter et al. (2014), traditional teacher training may be insufficient in preparing teachers for remote learning environments. Research has shown that educators with higher teaching self-efficacy (TSE) tend to be more engaged and report greater job satisfaction (Granziera & Perera, 2019). Furthermore, Kan & Murat (2020) found that educator self-efficacy in educational technology standards enhances lifelong learning capabilities, while Alkan & Erdem (2012) concluded that increased competency correlates with stronger self-efficacy beliefs.

These challenges were even more pronounced in Technology and Livelihood Education (TLE), which is heavily skills-based and competency-driven. The International Labour Organization (ILO, 2021) acknowledged the difficulty of delivering practical TVET training remotely. Elli & Ricafort (2020) noted that even qualified TLE teachers sometimes struggle to effectively teach exploratory courses, revealing a broader concern about readiness in this area. Effective delivery in distance education, particularly in TLE, hinges on robust communication skills and digital pedagogical competencies (Burns, 2011). Thus, pre-service teachers must be equipped

with innovative and responsive strategies appropriate for the demands of distance education (UNESCO, 2020).

In the past and present, teacher education in the Philippines has often leaned toward highly academic content, lacking context-based work readiness, especially in rural or under-resourced environments (Lopes & Tormenta, 2010). Montebon (2015) found that inadequate training, minimal feedback, and a lack of hands-on experiences negatively impact pre-service teachers' self-efficacy. Mtika (2008) highlighted another historical challenge: the lack of proper mentoring and orientation during practicum, leading student teachers to be left alone and feeling disempowered.

In response to these persistent and emerging issues, international bodies like the United Nations (UN, 2020) have urged TEIs to implement innovative, continuous training models tailored to modern learning landscapes. Specific training in pedagogy, as highlighted by Corry & Stella (2018), can reinforce belief in one's ability to succeed. Watson (2006) demonstrated that self-efficacy can be improved through targeted workshops and online training programs, benefits that last well beyond the intervention period.

The evolving nature of 21st-century learners necessitates rethinking existing frameworks like the National Competency-Based Teacher Standards (NCBTS) and the Philippine Professional Standards for Teachers (PPST). CMO 78, s. 2017 mandates that TEIs provide pre-service teachers with mastery of content, the ability to deliver curriculum in physical and virtual spaces, and the skills to design relevant learning activities. This aligns with global trends, including ASEAN integration and internationalization efforts, with 11 SUCs in Region III, prioritizing curriculum internationalization during the pandemic (Arceo, 2022).

Blended learning has become a permanent option in many institutions, highlighting the necessity of preparing teachers for both digital and traditional classroom contexts. A historically informed and forward-looking training manual could provide pre-service TLE teachers with critical guidance in navigating distance education's technological, pedagogical, and content-based demands. Such a resource would increase their employability locally and globally and position them as adaptive educators capable of responding to disruptions in education.

In line with CHED Memo 78, s. 2017, which emphasizes the production of highly competent and motivated TLE teachers, this study seeks to assess the self-efficacy and competency of pre-service TLE educators and develop a manual that supports their effective performance in distance learning environments, bridging historical legacies with contemporary innovations in teacher education.

Objectives of the Study

This study aimed to assess the self-efficacy and competency of pre-service Technology and Livelihood Education (TLE) teachers in the context of blended learning. The findings were intended to serve as the basis for developing a culturally and historically grounded manual for distance education. Historically, TLE in the Philippines evolved from practical arts and vocational instruction introduced during the American colonial period to becoming a core component of the K to 12 curriculum. Over the decades, it has integrated local livelihood practices, agricultural knowledge, home economics, and entrepreneurship, which reflect Filipino socio-cultural values. Amid the shift to flexible learning modalities during the COVID-19 pandemic, it became crucial to evaluate how future TLE educators viewed their readiness and competence.

Specifically, the study sought to:

1. Assess pre-service teachers' self-efficacy in teaching Technology and Livelihood Education through blended learning, including their perceived ability to manage instructional tasks using online and face-to-face modalities.

Methodology

This study employed a developmental research design following the Design and Development (D&D) model of Richey and Klein (2014), consisting of three stages: assessment and analysis, design and development, and evaluation. In the first stage, the self-efficacy and competency levels of fourth-year BTLEd pre-service teachers from SUCs in Iloilo were assessed using a researcher-made and validated online survey instrument. The participants were officially enrolled students majoring in Home Economics, Industrial Arts, and ICT. Of the 211 enrolled students, 138 were included in the study through purposive sampling using Yamane's formula, with 30 students involved in the pilot testing of the instrument. The instrument, validated by experts and tested for reliability, measured teaching self-efficacy and competencies in content knowledge, technology integration, pedagogy, learner management, and student interaction using a four-point Likert scale.

Following the assessment, Stage 2 involved designing and developing a manual based on the lowest-rated areas in self-efficacy and competency. The manual adopted the 4As model of experiential learning, Activate, Acquire, Apply, and Assess, covering three units with learning activities tied to TLE exploratory courses and Bloom's Taxonomy. Stage 3 was the evaluation of the manual by five expert evaluators with relevant experience in teacher education and curriculum development. Evaluation

criteria included objectives, content, organization, assessment, and references, rated on a five-point scale. The evaluation results guided the revision of the manual, which was finalized after incorporating all expert feedback. Data was processed using SPSS, with descriptive statistics to interpret the findings. Ethical standards on consent, privacy, autonomy, and confidentiality were strictly observed throughout the research process.

Results and Findings

Self-efficacy of Pre-service Technology and Livelihood Education Teachers in Distance Education in terms of Content Knowledge

Data in Table 1 shows the results on the content knowledge of self-efficacy of pre-service Technology and Livelihood Education teachers in distance education. The results revealed a high level of self-efficacy for content knowledge of pre-service TLE teachers in distance education. The efficacy for content knowledge was recorded with an area mean of 3.25 and a standard deviation of 0.50, respectively.

In addition, despite high self-efficacy, the researcher determined the lowest mean to be the lowest self-efficacy level of pre-service TLE teachers. The results recorded that the pre-service TLE teachers have difficulty explaining briefly the competencies stipulated in the Most Essential Competencies (MELCs) to students and formulating objectives effectively to meet the content and performance standards in TLE.

The findings of this study are explained thoroughly in DepEd Order No. 12 series 2020, which streamlined the learning abilities to the most essential. TLE courses teach the basic life skills necessary in everyday life, pandemic or not. These Most Essential Learning Competencies (MELCs) were challenging for pre-service teachers to transfer to learners since they had to sum up their partially acquired knowledge and skills via the blended learning modality.

Pre-service teachers' confidence in formulating objectives to effectively meet the content and performance standards was another somewhat confident (M=3.23) self-efficacy in teaching TLE exploratory courses regarding content knowledge. Formulating objectives is even more challenging than other content knowledge that the pre-service teachers should possess, such as demonstrating skills, explaining different specializations, and creating an activity or task plan for laboratory classes. It reveals that 85 out of 138 pre-service teachers indicated confidence in effectively developing the objectives, but it also highlighted the 10 pre-service teachers who were only moderately confident. The policy guidelines on lesson preparation (DepEd Order No. 42 s. 2016) specify that the lesson plan's objectives enable teachers to develop

objectives for learning for students and provide assurance that those students will achieve those goals.

The result implies that pre-service teachers in Technology and Livelihood Education demonstrate enough knowledge and understanding in specializations despite the current implementation of distance education. Pre-service teachers in Technology and Livelihood Education showed dedication and commitment towards their studies. They were ever ready to adopt and adapt to the change brought by the COVID-19 pandemic as manifested through demonstrating skills, explaining the various specializations in TLE, and creating various activities in the laboratory subjects, as well as formulating desirable and achievable objectives efficiently and effectively.

Result of the study was supported by the findings of the study conducted by Leader-Janssen, Elizabeth, Rankin-Erickson, Joan (2013) that there was a high correlation between content knowledge and self-efficacy of pre-service teachers. This finding indicated that as pre-service teachers obtained knowledge, they also obtained self-efficacy.

Further, the result parallels the findings of the study of Yurekli et al. (2020), which tackled teacher education programs' influence in transforming pre-service teachers' skills and knowledge into instructional practices. Pre-service teachers' self-efficacy will be boosted if their knowledge were sufficiently taught and practiced in the classroom; thus, revisiting the content of the course syllabus is deemed necessary.

Table 1. Self-Efficacy of Pre-service Technology and Livelihood Education Teachers in Distance Education in terms of Content Knowledge

Efficacy for content knowledge	**Highly Confident (4)**	**Confident (3)**	**Somewhat Confident (2)**	**Not Confident (1)**	**Mean**	**SD**
	%	**%**	**%**	**%**		
Demonstrate the skills in TLE to my students.	40.60	51.40	7.20	0.70	3.31	0.63
Explain the different specializations in the TLE subject.	39.10	52.90	7.20	0.70	3.30	0.63
Create an activity or task plan for laboratory classes in TLE.	37.70	54.30	7.20	0.70	3.28	0.63
Formulate objectives effectively to meet the content and performance standards in TLE.	31.20	61.60	7.20	0	3.23	0.57
Explain briefly the competencies stipulated in the Most Essential Learning Competencies. (MELCs) to the students.	26.80	59.40	13.80	0	3.13	0.62

Area Mean	**3.25**	**0.50**

Note: 1.00-1.49 – Low level of self-efficacy; 1.50-2.49 – Moderate level of self-efficacy; 2.50-3.49 – High Level of self-efficacy; 3.50-4:00 – Extremely high level of self-efficacy

Self-efficacy of Pre-service Technology and Livelihood Education Teachers in Distance Education Terms of Blended Technological, Pedagogical & Content

Table 2 shows the efficacy of blended technological, pedagogical, and content knowledge of pre-service Technology and Livelihood Education teachers in distance education. The results revealed a high level of self-efficacy for blended technological, pedagogical, and content knowledge of pre-service TLE teachers in blended distance education. The efficacy of blended technological, pedagogical, and content knowledge was recorded with an area mean of 3.25 and a standard deviation of 0.52, respectively.

In addition, despite high self-efficacy, the researcher determined the lowest mean to be the lowest self-efficacy level of pre-service TLE teachers. The results recorded that the pre-service TLE teachers have difficulty using spreadsheets for the analysis and organization of data of the students, as well as in formulating objectives of the lessons with the integration of appropriate learning platform/s and teaching methodology.

The combined technological, pedagogical, and content knowledge results suggest that pre-service teachers were adept at delivering TLE exploratory courses using technology. These future teachers are also equipped to deliver instruction remotely and in person. To integrate technology with the proper pedagogy for a subject's content, a teacher must be able to educate over time. There are 15.9% or 1/6 of the pre-service teachers who said they were somewhat confident in their abilities to formulate learning objectives by integrating various learning platforms and teaching methodology in the TLE content. Even an experienced teacher takes years to study technology-aided instruction while demonstrating mastery of the subject; imagine how much longer it would take for a neophyte.

Additionally, it is noteworthy that 11.6 % of the participants indicated they were *"somewhat confident"* in their ability to use spreadsheets to organize and analyze students' data. Given that the so-called "digital natives" age found these spreadsheets rudimentary, they nonetheless obtained the lowest ratings. To promote the development of their students' 21st-century abilities, teachers must be knowledgeable about different pedagogical approaches and the proper uses of ICT (Valtonen et al., 2017).

The result implies that pre-service teachers in Technology and Livelihood Education demonstrate and deliver lessons through differentiated instructions and

uses various platforms, especially during the COVID-19 pandemic. By integrating different platforms into instructions, students will perform well and achieve the standards set by the teachers, especially the content and performance standards, to have variations in evaluating and assessing students' performance.

These results seem to agree with the idea that Sadler (2013) stated that teachers' sense of self-efficacy is high when they perceive their pedagogical and knowledge content highly. The study showed that the utilization of teaching strategies that generate students' active involvement appeared to be influenced by the new teachers' self-confidence. Furthermore, teachers' skills and knowledge on content were connected to their self-confidence, which considers experience a fundamental factor in their perceptions of their skills and knowledge.

Further, this result seems to support the statement of Irmawati et al. (2017), who stated that teachers' training is important in the development of teachers' skills and professional-relevant skills. Revisiting, of course, the content about technology in teaching and learning, specifically on Microsoft Excel, seemed necessary to include as far as the result of this study is concerned. Also, teachers teaching in curriculum development subjects must strengthen the lesson planning ability of pre-service teachers, specifically in formulating the objectives by integrating appropriate learning platforms and teaching methodology.

Aside from this, an innovative and relevant teaching-learning evaluation process should be contextually designed as student-centered instruction (Popescu & Stefan, 2014). In addition, it is a must for the teachers to be cognizant of several traditional and contemporary models, and based on critical analyses of the real context, they should act specifically. It was verified from previous research that teachers can develop their expertise in teaching through the transformation and integration of practical, theoretical, and self-regulated knowledge. Moreover, pedagogical teaching competency skills of pre-service teachers should be viewed as a process that is individualized, current or ongoing, and dependent on context to achieve sound expertise in the field (Wallin et al., 2019).

Moreover, the result of a study conducted by Teo (2009) at a teacher training institute in Singapore revealed that teachers' self-efficacy beliefs directly affect their intention to use technology, including their perception of its usefulness and ease of use as well as their behavioral intentions. This result was also supported by the study of Curts, Tanguma, and Peña (2008) conducted in a Hispanic school in Texas that aimed to predict teachers' self-efficacy in using technology. It was noted that teachers'

integration of technology in the classroom is directly affected by their self-efficacy beliefs.

Table 2. Self-Efficacy of Pre-service Technology and Livelihood Education Teachers in Distance Education in terms of Blended Technological, Pedagogical, and Content

Efficacy for blended technological, pedagogical, and content	**Highly Confident (4)** %	**Confident (3)** %	**Somewhat Confident (2)** %	**Not Confident (1)** %	**Mean**	**SD**
Use at least two common learning platforms (Google Meet, Facebook social learning, etc.)	51.40	43.50	5.10	0	3.46	0.59
Deliver the lessons in TLE through differentiated instructions using the technology.	37.00	55.10	8.00	0	3.28	0.60
Utilize any learning platform/s suited for achieving the content and performance standards	34.10	56.50	8.70	0.70	3.23	0.63
Use spreadsheets for the analysis and organization of data	29.70	57.20	11.60	1.40	3.15	0.67
Formulate objectives of the lessons with the integration of appropriate learning platform/s and teaching methodology.	29.70	54.30	15.90	0	3.13	0.66
Area Mean					**3.25**	**0.52**

Note: 1.00-1.49 – Low level of self-efficacy; 1.50-2.49 – Moderate level of self-efficacy; 2.50-3.49 – High Level of self-efficacy; 3.50-4:00 – Extremely high level of self-efficacy

Self-efficacy of Pre-service Technology and Livelihood Education Teachers in Distance Education in Terms of Student-Teacher Interaction

Data in Table 3 shows the results on the efficacy of student-teacher interaction of pre-service Technology and Livelihood Education teachers in distance education. The results revealed a high level of self-efficacy for student-teacher interaction of pre-service Technology and Livelihood Education teachers in blended distance education. The efficacy of student-teacher interaction was revealed with an area mean of 3.27 and a standard deviation of 0.51, respectively. The pre-service teachers showed better self-efficacy regarding student-teacher interaction, as manifested by a high level of self-efficacy in all indicators.

In addition, despite high self-efficacy, the researcher determined the lowest mean to be the lowest self-efficacy level of pre-service TLE teachers. The results revealed that pre-service TLE teachers somehow find difficulty intervening with

learners' progress and judging whether and how well learners are obtaining content-specific knowledge.

The percentage shows that more than 50% of pre-service teachers were confident in their ability to address issues with their students' performance, including handling feedback, motivating students who were underperforming, creating a welcoming learning environment, being sensitive to learners' needs, and being sufficiently critical when evaluating students' learning capacity. Suppose the Teacher Education Institutions (TEIs) produce graduates with a level of self-efficacy. In that case, you can be sure that your education will be of the highest quality in person or distance learning modality.

The result implies that pre-service teachers in Technology and Livelihood Education exhibit a positive attitude by establishing the proper timing to judge the students' performance. In addition, pre-service teachers established the right timing on how and when to intervene in the learner's learning progress. This means that pre-service teachers are well adjusted and willing to adopt changes brought by the pandemic.

The study of Gardenhour (2016) emphasized the significant gains of identified components of Response to Intervention (RTI) with increased student growth on progress monitoring tests. On the other hand, the result of the present study indicates that some of the pre-service teachers were somewhat or not confident enough in when and how to intervene in the learners' learning progress, as what Fuchs, L. S., & Vaughn (2012) had mentioned that the more frequent the progress monitoring, the more quickly students can receive appropriate instruction. Thus, pre-service teachers' confidence in how and why monitoring progress should be done should be learned and mastered.

The result of the study is supported by Raufelder, Bukowski, and Mohr (2013), who stated that the intricacies of important aspects of the relationship between a teacher and a student where complexities of educational contexts can only be achieved if teacher-student relationship is realized as an interpersonal process in which teachers and students assumed roles beyond their institutional roles.

Prolific interactions in an educational setting can also be possible if teachers and students do not limit themselves to roles inside the institutions that are not in line with the universal goal of having a productive interaction among them. On the other hand, when the teacher-student relationship was limited to institutional roles, students and teachers may have unsatisfactory relationships and educational settings.

Likewise, Nickel (1981, 1993) stated that interactions with students are essential to teachers' day-to-day operations as the teacher-student relationship is a

communicative activity. Moreover, dealing with students is the most important and challenging aspect of teachers' experience (Nemser & Remillard, 1996; Ria et al., 2003; Lubbers et al., 2006; Hayer et al., 2005).

Empirical studies also depicted the relevance of self and identity concern for the development of teachers, which commences from the initial training to career issues in the future, as well as their social competence, for this can help them deal with pressing issues and challenging relationships and interactions with students successfully (Jennings & Greenberg, 2009). Teachers with social competence have greater potential to foster relationships with students, manage students' behavior in the classroom, serve as models of behaviors to children, regulate their emotions, and protect students and themselves from being drained or burned out (Jennings & Greenberg, 2009). Hence, pre-service teachers' critical judgments will only be identified and addressed if they build rapport with their students by interacting, communicating, and listening to them with their ears.

It contradicts the critical thinking skills of pre-service teachers in science instruction, as investigated by Hachlaf (2018), who got high mean results. This may be because, in the context of blended distance education, making critical judgments about whether the students' gained knowledge is quite challenging, knowing that the assessment of students' learning back then was already controversial.

Table 3. Self-Efficacy of Pre-service Technology and Livelihood Education Teachers in Distance Education in terms of Student-Teacher Interaction

Efficacy for student-teacher interaction	**Highly Confident (4)**	**Confident (3)**	**Somewhat Confident (2)**	**Not Confident (1)**	**Mean**	**SD**
	%	**%**	**%**	**%**		
Recognize when and how to respond/give feedback to shape and promote interactions and understandings.	44.90	50.70	3.60	0.70	3.39	0.59
Encourage those who lag in the lessons, performances, and tasks.	43.50	52.20	3.60	0.70	3.38	0.59
Establish a virtual/non-virtual welcoming presence.	35.50	55.80	8.00	0.70	3.26	0.63
Sense when to intervene in the learners' learning progress.	31.90	54.30	13.00	0.70	3.17	0.67
Make critical judgments about whether and how well students are gaining content-specific knowledge.	29.00	59.40	10.90	0.70	3.16	0.63
Area Mean					**3.27**	**0.51**

Note: 1.00-1.49 – Low level of self-efficacy; 1.50-2.49 – Moderate level of self-efficacy; 2.50-3.49 – High Level of self-efficacy; 3.50-4:00 – Extremely high level of self-efficacy

Self-efficacy of Pre-service Technology and Livelihood Education Teachers in Distance Education in Terms of Managing Learners

Data in Table 4 shows the efficacy for managing learners of pre-service Technology and Livelihood Education teachers in blended distance education. The results revealed an extremely high level of self-efficacy in convincing learners that they can do well in schoolwork, with a mean of 3.57 and a standard deviation of 0.56. In addition, a high level of self-efficacy for managing learners of pre-service TLE teachers in distance education motivates learners with low interest. It also brings out their abilities to the fullest by giving reinforcement activities and getting through to the most challenging learners. Accordingly, the efficacy for managing learners recorded a high level of self-efficacy with an area mean of 3.42 and a standard deviation of 0.51, respectively.

Likewise, despite high self-efficacy, the researcher determined the lowest mean to be the lowest self-efficacy level of pre-service TLE teachers. The results revealed that pre-service TLE teachers somehow find difficulty in giving reinforcement activities for learners who display no interest in learning, and in getting through to the difficult learners.

An average of 60% of the participants were highly confident in their abilities to persuade, motivate, and bring learners to their full potential. It is important to remember that 11% of pre-service teachers still require further practice and training on reinforcing teaching. Some were somewhat confident (4.3 %) and not confident (2.2 %), who needed assistance getting through the most challenging learners. In the study of Abas (2016), it was shown that pre-service teachers encountered "moderate difficulty" (6 out of 7) in observing students' behaviors and performance inside the class in the TLE subject. If they are not given help on addressing these concerns in the academe, pre-service teachers' dissatisfaction with the teaching profession could increase, and their motivation for student internships could decline.

The finding suggests that by integrating and emphasizing the topic in the subject's teaching principles, pre-service teachers should be informed that learners who demonstrated no interest in learning have contributing factors such as personal factors, environmental variables, and emotional factors (Vasudevan, 2017). In

addition, close monitoring and input on challenges found in their field study should be given, emphasizing how to deal with the class's most challenging students.

The result of the present study agrees with the statement of Tschannen-Moran and Hoy (2001) that the self-efficacy for student engagement considers teachers' self-confidence in engrossing students to learn. Pre-service teachers' self-efficacy may be enhanced by effectively employing different instructional strategies as offered in the manual developed by the researcher; thus, difficult learners and students who display no interest in learning will be minimized or eliminated.

Moreover, results seem to agree with the statement of Granziera and Perera (2019), reported in the study of Granziera and Perera (2019), that in effect, teachers having higher Teaching Self-Efficacy (TSE) are more likely to feel involved with students and are satisfied with their jobs. Likewise, teachers are likely more relentless in facing hardships in teaching and more innovative in teaching strategies that facilitate students' understanding of broad subject matters (Zee & Koomen, 2016). Therefore, pre-service teachers will be more confident if exposed to difficult learners and learners with no interest to learn. Data in Table 3 shows the results on the efficacy of student-teacher interaction of pre-service Technology and Livelihood Education teachers in distance education. The results revealed a high level of self-efficacy for student-teacher interaction of pre-service Technology and Livelihood Education teachers in blended distance education. The efficacy of student-teacher interaction was revealed with an area mean of 3.27 and a standard deviation of 0.51, respectively. The pre-service teachers showed better self-efficacy regarding student-teacher interaction, as manifested by a high level of self-efficacy in all indicators.

Table 4. Self-Efficacy of Pre-service Technology and Livelihood Education Teachers in Distance Education in terms of Managing Learners

Efficacy for managing learners	**Highly Confident (4)**	**Confident (3)**	**Somewhat Confident (2)**	**Not Confident (1)**	**Mean**	**SD**
	%	**%**	**%**	**%**		
Convince learners that they can do well in schoolwork.	61.60	34.80	3.60	0	3.57	0.56
Motivate learners who show a low level of interest in schoolwork.	57.20	37.00	5.10	0.70	3.50	0.63
Bring learners' abilities to the fullest.	55.10	38.40	6.50	0	3.48	0.61
Give reinforcement activities for learners who display no interest in learning.	39.10	48.60	11.60	0.70	3.29	0.65
Get through to the most challenging learners.	38.40	55.10	4.30	2.20	3.26	0.68

Area Mean	**3.42**	**0.51**
Overall Mean	**3.30**	**0.45**

Discussion

The study revealed that pre-service TLE teachers exhibited a high level of self-efficacy in terms of content knowledge, with an area mean of 3.25. They demonstrated confidence in delivering skills-based lessons and explaining TLE specializations. However, they showed relative difficulty articulating the Most Essential Learning Competencies (MELCs) and formulating objectives aligned with performance standards tasks that require a more profound understanding and application of curriculum guides, such as those mandated by DepEd Order No. 12, s. 2020 and DepEd Order No. 42, s. 2016. These challenges indicate the need to strengthen pre-service training lesson planning and curriculum interpretation skills.

Regarding blended technological, pedagogical, and content knowledge, pre-service teachers also scored high in self-efficacy (M = 3.25), with strong confidence in using learning platforms and delivering differentiated instruction. However, formulating learning objectives with integrated platforms and using spreadsheets for data analysis posed the most significant difficulty, despite the expectation that digital natives would be proficient in such tools. This highlights a gap between technological familiarity and pedagogical application, necessitating improved training in tech-based instructional planning.

On student-teacher interaction, the results showed a high self-efficacy level (M = 3.27), reflecting pre-service teachers' readiness to provide feedback, motivate students, and create a supportive learning environment. Nevertheless, they expressed less confidence in making critical judgments about learning progress and knowing when to intervene, skills essential in adaptive teaching, particularly in online settings.

Lastly, the self-efficacy rating for learner management was generally high (M = 3.42), with the most substantial confidence in motivating and engaging learners. However, reinforcing learning for disinterested students and managing difficult learners remained challenging. These findings align with studies emphasizing that self-efficacy improves with experience, pedagogical support, and exposure to real classroom scenarios (Tschannen-Moran & Hoy, 2001; Granziera & Perera, 2019).

Conclusively, while the results indicate readiness among pre-service TLE teachers, they also underscore the need for targeted interventions and support

mechanisms in teacher education programs, particularly in content integration, technological application, and behavioral management in distance education.

Conclusion

The findings of this study underscore the complex realities educators and students face in teaching and learning about gender and culture within the Philippine educational framework. While national policies such as the CHED GAD guidelines promote gender sensitivity in education, actual implementation remains fragmented and largely dependent on institutional initiative and individual educator commitment. The lack of standardized teaching materials, limited professional development opportunities, and insufficient administrative support hinder the systematic integration of gender and development (GAD) concepts across academic levels.

Cultural resistance further complicates the teaching of gender and culture, as many educators and students grapple with societal norms deeply rooted in religious conservatism and traditional Filipino values. These cultural tensions often manifest in classroom discomfort or opposition when sensitive gender issues, particularly those related to feminism, gender identity, and LGBTQ+ inclusion, are introduced. Such resistance highlights the urgent need for context-sensitive, values-transformative pedagogical approaches that do not simply insert gender into the curriculum but actively interrogate existing biases and challenge entrenched stereotypes.

Despite these barriers, the study also revealed significant opportunities for empowerment and critical engagement when gender and culture are meaningfully integrated into the curriculum. Educators observed that students respond positively to inclusive, culturally relevant discussions that affirm their identities while fostering awareness of social inequalities. These moments of engagement demonstrate the transformative potential of education when it becomes a space for reflection, resistance, and the reimagining of social roles.

In conclusion, while there are clear structural and cultural challenges to teaching gender and culture in Philippine education, there is also a strong foundation for progress. Realizing this potential requires more than policy; it demands a genuine commitment to teacher training, inclusive curriculum development, and institutional support. Only then can Philippine education fulfill its role not only in promoting gender equality but in shaping a more inclusive, critically aware, and socially just society.

References

[1] Alkan, V., & Erdem, E. (2012). Pre-service teachers' technological pedagogical content knowledge affects their self-efficacy beliefs. Educational Research and Reviews, 7(25), 5435–5442. https://doi.org/10.5897/ERR12.172

[2] Arceo, C. M. (2022). Internationalization initiatives in Philippine higher education institutions: The Region III experience. Philippine Journal of International Studies, 4(1), 35–49.

[3] Bandura, A. (2015). Self-efficacy: The exercise of control. Freeman.

[4] Burns, M. (2011). Distance education for teacher training: Modes, models and methods. Education Development Center. https://idd.edc.org/resources/publications/distance-education-teacher-training-modes-models-and-methods

[5] Carter, V., Cooper, R., & Anderson, R. (2014). Pre-service teachers' perceptions of virtual classrooms for practicing classroom management skills. Journal of Technology Integration in the Classroom, 6(1), 23–29.

[6] CHED Memorandum Order No. 78. (2017). Policies and standards for Bachelor of Technology and Livelihood Education (BTLEd). Commission on Higher Education.

[7] Corry, M., & Stella, J. (2018). Developing a training program for online instructors. International Journal on E-Learning, 17(2), 125–142.

[8] DepEd Order No. 012. (2020). Adoption of the basic education learning continuity plan (BE-LCP) for school year 2020–2021. Department of Education.

[9] Elli, N., & Ricafort, N. (2020). An assessment of TLE teachers' pedagogical competencies in teaching exploratory courses. Asia Pacific Journal of Advanced Education, 6(2), 22–30.

[10] Granziera, H., & Perera, H. N. (2019). Relations among teachers' self-efficacy beliefs, engagement, and work satisfaction. Contemporary Educational Psychology, 58, 100–115. https://doi.org/10.1016/j.cedpsych.2019.02.003

[11] International Labour Organization. (2021). Ensuring TVET continuity during the COVID-19 pandemic: Response of the ASEAN member states. https://www.ilo.org

[12] Kan, M. C., & Murat, M. (2020). Examining the relationship between teacher candidates' self-efficacy and lifelong learning tendencies. Participatory Educational Research, 7(3), 143–156. https://doi.org/10.17275/per.20.36.7.3

[13] Lopes, A., & Tormenta, R. (2010). Teachers' initial training and professional identity. European Journal of Teacher Education, 33(2), 129–147. https://doi.org/10.1080/02619761003683724

[14] Metghalchi, M., Thompson, L., & Alkhabbaz, S. (2013). Self-efficacy in teacher education. Journal of Applied Business Research, 29(1), 55–61. https://doi.org/10.19030/jabr.v29i1.7506

[15] Montebon, D. R. (2015). Developing competencies of student teachers through training and practice teaching. Asia Pacific Journal of Multidisciplinary Research, 3(4), 1–7.

[16] Mtika, P. (2008). Teaching practice as a component of teacher education in Malawi: An activity theory perspective. Journal of Education for Teaching, 34(3), 285–296. https://doi.org/10.1080/02607470802212107

[17] Naelga, M. A., & Sonsona, R. A. (2017). TLE teachers' readiness and pedagogical competence in the K to 12 curriculum implementations. International Journal of Advanced Research in Management and Social Sciences, 6(6), 129–141.

[18] Northrup, P. T. (1997). The development and use of learner-centered courseware in online distance education. Journal of Interactive Instruction Development, 9(3), 27–30.

[19] Sahin, I. (2010). The relationship between pre-service teachers' sense of efficacy and professional competencies. Education and Science, 35(158), 159–170.

[20] Simone, C. (2006). Preparing distance education instructors: A competency-based approach. Open Learning, 21(2), 135–146. https://doi.org/10.1080/02680510600715518

[21] UNESCO. (2020). COVID-19 and higher education: Today and tomorrow—Impact analysis, policy responses and recommendations. United Nations Educational, Scientific, and Cultural Organization.

[22] United Nations. (2020). Policy brief: Education during COVID-19 and beyond. https://www.un.org

[23] Watson, S. L. (2006). Improving self-efficacy and retention through online learning. TechTrends, 50(4), 26–32. https://doi.org/10.1007/s11528-006-0043-1

[24] World Economic Forum. (2019). Strategies for the new economy: Skills as the currency of the labor market. https://www.weforum.org/reports

[25] Yeşilyurt, E. (2014). The prediction level of prospective teachers' attitudes towards teaching and professional competency beliefs is related to their self-efficacy beliefs. Educational Research and Reviews, 9(24), 1376–1382. https://doi.org/10.5897/ERR2014.1939