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Contextualizing Technical and Livelihood Education: Pedagogical Innovations Rooted in Philippine Culture and History in BTVTED and BTLED Programs

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Abstract

This study explored culturally and historically grounded pedagogical approaches in teaching technical and livelihood subjects within the Bachelor of Technical-Vocational Teacher Education (BTVTEd) and Bachelor of Technology and Livelihood Education (BTLEd) programs in selected Philippine Higher Education Institutions (HEIs). It examined how teachers contextualize their lessons, utilize innovative strategies, and perceive the advantages and limitations of various instructional methods. Using a qualitative multiple-case study design, the research drew data from twelve teachers across four state universities: Don Mariano Marcos Memorial State University (DMMMSU), Pangasinan State University (PSU), Mariano Marcos State University (MMSU), and Cagayan State University (CSU). Data collection involved semi-structured interviews, classroom observations, and document analysis. Thematic analysis revealed that teachers incorporated cultural and historical content by aligning lessons with students lived experiences, employing project-based learning anchored in heritage, and integrating community-based knowledge. Innovative strategies included culturally responsive modules, the use of local languages, and the inclusion of oral histories and traditional practices. These approaches fostered student engagement, strengthened cultural identity, and enhanced community relevance. However, challenges included student disinterest, limited institutional support, and difficulties aligning with national curriculum standards. Despite these barriers, the study highlights meaningful efforts by educators to promote inclusive education. Findings underscore the need for systemic changes in policy, curriculum development, and institutional backing to sustain culturally sensitive teaching. This research contributes to the advocacy for culturally responsive pedagogy in technical and vocational education in the Philippines.

Keywords: *culturally responsive teaching, technical-vocational education, Philippine culture, contextualized instruction, heritage-based learning*

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Introduction

There is a great need to teach in the Philippines today in a way that respects the country's cultural and historical roots. This is crucial for Technical and Livelihood Education (TLE) because classes are often based on notions from the West, other parts of the world, or industry that do not always match what Filipino students genuinely go through. In the Bachelor of Technical-Vocational Teacher Education (BTVTEd) and Bachelor of Technology and Livelihood Education (BTLEd) degrees, it has become evident that Philippine culture and history should be taught. This is especially true when professors try to make learning worthwhile, important, and life changing. In this study, we look at how teachers employ cultural and historical themes to put TLE lessons in perspective, what innovative ways they teach, and the merits and downsides of doing so.

This study is important because it could revolutionize how we view technical and livelihood education, not just as a tool to train workers, but also as a place to learn about culture and history. This study is founded on culturally responsive teaching (Gay, 2010) and historical awareness in education (Seixas, 2004). It explains how teachers can employ Filipino values, traditions, and historical events in their classes to assist pupils in building their sense of national identity and cultural pride. According to Banks (2016), students learn best when the things they do and learn in school are connected to their own cultures and history. Arce and Luzano (2021) say contextualized education makes pupils more interested in what they learn in the Philippines. Espiritu and Dizon (2019) found that including indigenous and communal traditions in livelihood topics makes people much more skilled and motivated.

A few recent studies illustrate how crucial it is to teach technical and teacher education in a way that is based on culture. Morales (2022) said that integrating community traditions in TVET subjects helps keep culture alive and helps students learn their abilities. Meanwhile, Cruz and Abulencia (2020) said that teacher education programs should pay more attention to heritage. They argued that vocational and technology training can help people build their national identity. Reyes and Feliciano (2021) found that using historical anecdotes about local resistance movements and community industries to teach also helps students think critically and learn more about their own culture and society.

There is still not enough research, even with these adjustments. Most of the research that has been done on contextualized education in the Philippines is about basic education or education for indigenous peoples (IPEd). There has not been much research on how state university BTVTEd and BTLEd teachers use culture and history

in their teaching. Most of the time, technical and livelihood education curriculum designs still use industry-based standards, such as those from TESDA and CHED. Most of the time, these criteria do not consider how important it is for things to be relevant to the local culture. There is not enough research on how Philippine culture and history affect these new ways of teaching, especially in higher education, even if they are sometimes talked about.

This study aimed to discover how teachers in the BTVTEd and BTLEd programs use Filipino culture and history to make technical and livelihood education more meaningful to their students. It sought to talk about the new ways of teaching that are being used, figure out how they serve kids, and look at the challenges that schools and teachers have that make it hard to keep utilizing these approaches based on culture. By filling in this gap, the study helps the Philippines progress toward an education system that is more inclusive, relevant, and empowering of its culture.

Research Questions

1. How do instructors in BTVTEd and BTLEd programs integrate Philippine cultural and historical elements into their technical and livelihood education curricula and classroom instruction?
2. What pedagogical innovations have been developed and implemented by educators to contextualize technical and livelihood education in alignment with Filipino cultural values and historical narratives?
3. What are the perceived benefits and challenges of embedding culturally and historically rooted approaches in teaching technical and livelihood subjects within Philippine Higher Education Institutions?

Research Methodology

The researchers employed a qualitative research method and a multiple-case study strategy to determine how BTVTEd and BTLEd teachers used cultural and historical factors in their lessons. They chose this design because it would offer a clear picture of what instructors do in real classrooms, what they think, and what they do, with a focus on new ways of teaching based on Philippine culture and history. The study was conducted at four public universities in Northern Luzon: Don Mariano Marcos Memorial State University (DMMMSU), Pangasinan State University (PSU),

Mariano Marcos State University (MMSU), and Cagayan State University (CSU). Now, these schools are offering both BTVTEd and BTLEd programs.

Using purposive sampling, twelve (12) full-time faculty members who taught TLE courses were chosen, with three from each university. We picked people to participate based on their documented work in community-based education, curriculum localization, and instructional design. Semi-structured interviews were a significant way the researcher gathered information. Through these interviews, the researchers discovered how teachers used cultural and historical themes in their lesson plans, tests, and teaching methods. We did the interviews in English and Filipino, gained permission to record them, and then typed them out exactly as they were said to ensure they were right.

To double-check the results, they also looked at documents and observed classrooms. They checked the lesson plans, learning modules, and other teaching materials to see how they featured stories from Philippine history and cultural traditions. They used field notes from observations to check that what was said to be happening in the classroom was indeed happening. These sources of information helped them get a better and more accurate picture of how the teachers taught.

Braun and Clarke (2006) explain that this study used thematic analysis to examine the data. The researchers transcribed transcripts and documents by hand to see how people thought these practices were applicable or hard, how they blended cultural and historical knowledge, and how they taught new things. The codes were put into three primary groups based on their concerns. These themes answered the study's three research questions. Member checking, where participants read summaries of their answers, and peer debriefing with qualitative research experts from the same university, helped make the research more believable.

Ethical concerns were significant throughout the whole research process. Participants were given informed consent forms that stated the purpose of the study, that they did not have to take part, and how their privacy would be safeguarded. All the universities that took part agreed to it, and the data were handled in a way that aligned with ethical standards for educational research. This method allowed the study to unearth comprehensive, context-rich information regarding how TLE teachers linked their classes to their students' cultural and historical backgrounds. This

added to the conversation about culturally responsive teaching in Philippine higher education.

Results and Findings

BTVTEd and BTLEd programs incorporate Philippine cultural and historical elements into the design and delivery of their technical and livelihood education curricula and classroom instruction.

Three key activities illustrate that teachers in BTVTEd and BTLEd programs have discovered ways to infuse parts of Philippine culture and history into technical and livelihood education. First, they add traditional skills, regional food, and indigenous crafts to the curriculum to help pupils connect with their cultural identity and make it more relevant. Second, they use stories from the past in their technical lessons to assist students in understanding how colonial and local history affect how people live now. Third, they plan lessons with individuals in the community, using information from people of all ages and real-life circumstances. These strategies improve technical education and help students feel more connected to their community and more aware of their responsibilities as citizens.

When asked how BTVTEd and BTLEd teachers infuse Philippine history and culture in their classes and curricula, three significant themes arose. These were: (1) Curriculum Localization Anchored in Cultural Identity, (2) Use of Historical Narratives in Skills-Based Lessons, and (3) Community-Informed Instructional Design. At Don Mariano Marcos Memorial State University (DMMMSU), Pangasinan State University (PSU), Mariano Marcos State University (MMSU), and Cagayan State University (CSU), these themes showed up in interviews, observations, and document analyses.

Curriculum Localization Anchored in Cultural Identity

Teachers indicated they changed their lesson plans and learning modules to fit how things are done in their area. Instead of only following the standard technical curriculum CHED or TESDA gave, they added cultural elements to their teachings, such as traditional ways of manufacturing food, indigenous crafts, regional weaving

designs, and local farming methods. This strategy helped them make technical material relevant to pupils from different cultures.

“For our bread and pastry course, I include ‘bibingka’ and ‘kalamay’ instead of just Western cakes. I ask them to bring family recipes or stories behind the dish. It is still technical but becomes cultural too,” Participant 2 from PSU shared.

“In dressmaking, I make them study Ilocano designs and embroidery. They are assessed not just by how clean the stitches are, but how well they capture the design’s meaning,” said Participant 7 from MMSU.

These answers show how teachers changed the curriculum to link vocational knowledge with cultural identity. By including cultural elements, they helped students see the importance of their traditions in real life and see their background as a professional asset. This method fits with Banks’ (2016) multicultural curriculum paradigm, which stresses making the curriculum more culturally relevant. It also supports Gay’s (2010) idea that culturally responsive education helps students feel good about themselves and makes them more interested in learning by relating what they learn to their lives.

Use of Historical Narratives in Skills-Based Lessons

Teachers taught Philippine history by putting skills for making a living in the context of historical events, practices, or local industries that have changed over time. History was not a separate subject; it was taught through stories, talks about how colonialism affected trade skills, and the growth of indigenous knowledge systems.

“When I teach weaving techniques, I explain how Spanish colonization affected our textile designs. This gives meaning to why we still use certain patterns today,” explained Participant 4 from CSU.

“In our entrepreneurship class, I let them research old local businesses or trade practices in their town. This way they see how livelihood is shaped by history,” said Participant 11 from DMMMSU.

These ideas highlight how historical knowledge is embedded into the technical curriculum to give students a social and cultural context for their skill development. Seixas (2004) believes pupils need to be informed of history in school to make decisions that are founded on facts and properly thought out. Teachers helped students become more critical thinkers and conscious of civic responsibility by connecting current technical practices to their historical roots. This integration does more than educate

students' technical skills; it also makes them more aware of other cultures as future professionals.

Community-Informed Instructional Design

Some teachers used local resources and people with knowledge, such as artists, elders, or business owners, to help them design classes or speak as guests. These partnerships ensured that educational materials were based on real-life traditions and practices in the community. Teachers saw these links as both cultural and educational changes.

I invite a local blacksmith to our metalwork class. He teaches techniques passed down through generations. The students see how this skill is tied to our community's survival," said Participant 1 from MMSU.

"We consult elders when we make modules on native food processing. Their input adds depth to our lessons and connects the students to our roots," Participant 8 from DMMMSU said.

This topic shows how culturally sustaining pedagogy works, where communities are more than just donors; they are also partners in the curriculum. The IPed framework from the Department of Education (DepEd, 2011) stresses how important it is for communities to be involved in education, and this practice fits with that. It also agrees with Morales's (2022) research, which says that culturally grounded teaching works best when people from the community help shape the curriculum. This method turned TLE instruction into a learning experience that involved people of all ages and backgrounds.

In their lessons, teachers in the BTVTEd and BTLEd programs use curriculum localization, historical narratives, and community-informed instructional design to include Philippine culture and history. These culturally based methods make technical and livelihood education more valuable and powerful for students by linking skills training to their heritage, community, and national identity. This kind of integration not only makes teaching better, but it also makes education a more important part of preserving culture and establishing a nation.

Educators have designed and Applied Innovative Teaching Strategies to Contextualize Technical and Livelihood Education in Ways that reflect Filipino Cultural Values and Historical Narratives.

Teachers in the BTVTEd and BTLEd programs have developed new teaching methods that connect technical and livelihood education with Filipino cultural values and historical stories. These ideas demonstrate a genuine commitment to

contextualizing learning in ways that affirm students' identities and cultural heritage. With project-based learning centered on heritage, teachers get students to make things important to their culture while also getting them to think critically about traditional practices. Some students liked this way, but others had difficulty understanding how local items fit into a worldwide world. Teachers used local languages and examples that students were familiar with to make culturally responsive modular design more accessible and engaging for learners. However, it was hard to translate technical jargon without compromising accuracy. Finally, bringing local history and oral traditions introduces knowledge from different generations into the classroom. This made students more conscious of history, but it did not always fit with their choices for current media. These different replies show that culturally based teaching innovations have potential and problems. They also show how important it is for technical-vocational education to have flexible, inclusive, and reflective teaching methods.

Heritage-Based Project-Based Learning

Many teachers now use project-based learning (PBL) methods focusing on Filipino crafts, talents, and ways of making a living. For these projects, students often must use their technical skills to make things based on local culture, like native foods, traditional clothing, or community tools. Then they must talk about how important what they made was to the culture or history.

"For our food processing course, students do not just cook; they prepare traditional dishes like 'tinubong' and explain their role in Ilocano festivals. They learn the skill and culture," said Participant 5 from MMSU.

"It is hard to do these heritage projects when some students are more interested in Western trends. Some see local products as outdated," shared Participant 3 from DMMMSU.

Heritage-based PBL helps students link their technical skills to who they are and their community. It also gets students more involved and helps them think critically because they must think about the cultural background of their work. On the other hand, teachers argued that these projects need to modify how students think, especially in cities where Western ideals are more widespread. Gay (2010) calls this the difficulty of culturally responsive teaching in postcolonial nations, when respecting local culture is at odds with modern and global norms.

Culturally Responsive Modular Design

Teachers produced customized study guides and modules that cover cultural symbols, language, and methods of doing things. These modules employed words and

phrases from many cultures and regional dialects to explain technical topics. This was notably useful during and after the COVID-19 pandemic when students were taught in various ways or modules.

"I translated my sewing module into Ilokano for students who struggle with English. They became more confident and engaged," said Participant 1 from CSU.

"Sometimes, finding the exact cultural equivalent for technical terms is difficult. Some ideas do not translate well," Participant 6 from PSU said.

Culturally responsive modular design helps students feel included and understood by considering their linguistic and cultural backgrounds. The IPed framework focuses on language use and cultural appropriateness (DepEd, 2011); therefore, this new idea fits in. However, when teachers tried to convey technical knowledge without compromising its meaning, they also had to cope with linguistic and conceptual challenges. This shows how hard it is for teachers to balance being accurate and respecting different cultures.

Integration of Local History and Oral Traditions in Classroom Practice

In technical fields, some professors found unique ways to use stories, historical case studies, and oral traditions. These talks talk about how people's living techniques have changed over time. For example, they talk about how Aboriginal people made goods before colonization and how herbal medicine was utilized to make communities healthier.

"I ask students to interview their grandparents about traditional livelihood practices. It is eye-opening for them and makes the class more personal," Participant 9 from PSU explained.

"Some students find oral histories boring or irrelevant. They prefer videos or hands-on activities," said Participant 12 from DMMMSU.

Using oral traditions and stories from the past makes learning more culturally rich. It promotes people of all ages to learn from each other, think critically, and be proud of their culture. Seixas (2004) noted that being aware of history helps pupils connect what they learn in the past with what they do now. On the other hand, teachers must modify how they teach this information to make it more exciting and easier to learn, especially for students acclimated to new media formats.

Teachers in the BTVTEd and BTLEd programs have developed novel educational approaches that link Filipino cultural values and historical narrative to technical and livelihood education. These include project-based learning focusing on history, culturally responsive modular development, and incorporating oral and historical material into lessons. These new ideas help people feel more connected to

their culture and improve in school. However, there are still challenges with how students feel about education, language barriers, and the availability of resources. These methods are nonetheless a step in the right direction toward a more culturally aware and deliberate kind of technical-vocational education in the Philippines.

Perceived Benefits and Challenges of Embedding Culturally and Historically Rooted Approaches in the Teaching of Technical and Livelihood Subjects

Teachers in the BTVTEd and BTLEd programs realize that adopting approaches based on culture and history in technical and lifestyle education can be good and evil. They realized that this kind of integration makes classes more interesting and valuable, which helps kids connect with their culture and stay interested in school. It also makes the community more important by encouraging students to use their skills to help with local needs and customs. However, they also have issues, such as insufficient school help, insufficient resources, and children not wanting to learn traditional things. These answers indicate how promising and challenging culturally based teaching could be in college.

Strengthening Cultural Identity and Student Engagement

Many teachers saw that adding cultural and historical elements to their classes made their students more interested, confident, and engaged in what they were studying. Lessons centered on the students' lives, languages, and cultures made them more interested. This relationship helped them build their cultural identity and their technical skills.

"When we use local examples or include traditional skills, students become more confident, they realize that what they know from home has value in school," Participant 4 from MMSU said.

"Some students do not immediately connect to cultural topics. They see them as outdated or less useful than modern skills," Participant 9 from PSU said.

Adding culture and history to technical education helps students feel like they belong, which makes it more relevant and accessible to everyone. Banks (2016) says culturally responsive education helps children feel good about themselves and do well in school by acknowledging their roots. However, not all students see cultural content the same way, especially those affected by globalized views or who know little about

traditional customs. This makes it hard for teachers to keep students from various backgrounds motivated and involved.

Enhancing Community Relevance and Lifelong Learning

Teachers reported that programs focused on culture usually helped students better grasp how skill training may help them satisfy the community's needs. Students are taught to be responsible and proud of assisting their communities. They thought that technical education was a way to keep their culture alive and aid their communities, not just a way to earn a job.

"Teaching traditional food preservation helps students realize its importance in local industries and disaster preparedness," Participant 2 from DMMMSU explained.

"We try to align lessons with community practices, but sometimes there is a mismatch, like when local methods do not meet TESDA's competency requirements," Participant 7 from CSU said.

History and culture-based teaching ties the classroom to the community and promotes the idea that vocational education should help individuals and society. Morales (2022) found something similar: that teaching based on local customs helps students become professionals aware of and respectful of various cultures. Still, teachers who wish to be culturally correct and follow national curricula have difficulty finding a middle ground between what schools say is right and what indigenous or traditional practices say is right.

Facing Institutional and Resource Constraints

Teachers acknowledged how vital it was to educate in a way that was based on culture and history, but they argued that structural and material problems made it hard to do so completely. Some of these are insufficient institutional policies that encourage cultural integration, insufficient money for community-based activities, and insufficient training or teaching materials that are in keeping with local tradition.

"Our department allows flexibility in teaching, so I am free to include local content and guest speakers," Participant 11 from CSU said.

"We lack the resources or time to develop culturally contextualized materials. Sometimes, I do everything independently," reported Participant 1 from PSU.

Some schools let students develop fresh ideas, but many teachers still operate in institutions that constrain their innovation. Gay (2010) talks about problems with institutions that are similar to those. For instance, culturally sensitive techniques are less likely to work if there is not enough support from the system. Even if teachers

want to do things well, they will get burned out and not accomplish things consistently if they do not have the right tools, training, and administrative support.

Teachers think that using culturally and historically based methods in technical and livelihood education is helpful. Some of these benefits are that more students will get involved, they will feel more connected to their culture, and the school will be more relevant to the community. However, real difficulties make them less likely to materialize, like kids not being interested, the curriculum not lining up, and problems with the school itself. Philippine Higher Education Institutions need systematic support, money for resources, and a flexible curriculum that honors local competence in technical training if culturally based teaching is to function. This balance is important for graduates to succeed at their jobs, understand other cultures, and deal with societal problems.

Discussion

The study's results suggest that teachers in the BTVTEd and BTLEd programs have a lot of different and hard-to-understand beliefs about how to apply methods based on culture and history. Teachers and professors from DMMMSU, PSU, MMSU, and CSU agreed that adding local culture and history to technical and livelihood education may improve learning.

Adding cultural components was supposed to make pupils more interested and help them feel more connected to their culture. When classes focused on the students' languages, cultures, and experiences, they were more interested, participated, and felt more confident. Teachers knew kids were likelier to achieve well if they felt their backgrounds were respected and acknowledged in the classroom. On the other side, some pupils did not respond as well, especially those who were more used to thinking in international or urban ways. They occasionally considered that traditional content was outdated or not beneficial, which suggested that they needed to adopt more flexible and integrated methods.

Second, teachings that included cultural and historical elements were more useful to the community. Teachers remarked that pupils began to regard their technological skills as more than just tools to acquire a job. They also considered them a means to improve their communities and cultural traditions. This connection between vocational education and community involvement helps people understand the value of lifelong learning. However, instructors felt that making local practices

comply with rigid national competency standards was challenging. This made it hard to be culturally sensitive and follow the curriculum simultaneously.

Lastly, the research concluded that institutions and resources were not working well. Some teachers were free to come up with innovative ideas. However, many had difficulties getting enough money, locating culturally acceptable teaching materials, and gaining aid from their schools. These restrictions often made it challenging to keep activities based on culture going beyond what one individual could do. Professors and instructors underlined how important it is to change legislation, train teachers, and design customized curricula to ensure that culturally and historically integrated education can be used consistently and effectively.

This study demonstrates that integrating cultural and historical elements into TLE is helpful. However, for these practices to be valuable and last in higher education, schools must be willing to provide them the resources, flexibility, and respect they need.

Conclusion

The study finds that using culturally and historically based approaches in Philippine Higher Education Institutions (HEIs) to teach technical and livelihood skills is advantageous for students, teachers, and society. Teachers in the BTVTEd and BTLEd programs purposefully use Filipino traditions, indigenous knowledge, local businesses, and historical stories in their lessons to get students more involved, build cultural pride, and make skills development more relevant. These strategies help kids see how what they learn in school connects to their culture, how things are done in their community, and their life experiences. This makes a technical education avenue to support culture and fulfill your civic responsibility.

However, using these culturally appropriate approaches to teaching is not always easy or the same for everyone. Many pupils appreciate regional instruction, but some do not, especially when they are affected by modern or globalized concepts. Also, the strictness of the existing national standards, such as those imposed by TESDA and CHED, makes it more challenging for teachers to change their teaching to fit varied scenarios. Even with these problems, teachers are committed to ensuring that technical training is appropriate for the area. They usually employ community relationships, storytelling, and projects based on their heritage as creative ways to do this.

Also, these behaviors are challenging to completely institutionalize because of problems with the institutions, like not having adequate policy support, money, or training in culturally appropriate ways. This means that much of the work depends on

people having the initiative instead of getting aid from the system, which could make things inconsistent and wear out.

Significantly, adding culturally and historically grounded methodologies to technical and livelihood education could significantly affect how things are done. This could help preserve culture and build a nation, not just improve academic performance. To make the most of these benefits, colleges, universities, and legislators need to modify how they teach rapidly, offer teachers more training, and set up support systems that understand how essential culture and history are in vocational education. The higher education system in the Philippines can turn out a generation of students who are proficient with technology, very attached to their cultural identities, and committed to improving their communities.

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