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Assessing the Teaching Strategies and Techniques Used by TVL Teachers: Basis for Pedagogical Training Design

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ABSTRACT

This research study aimed to evaluate the teaching strategies and techniques employed by Technical-Vocational-Livelihood (TVL) teachers, with a focus on informing the design of pedagogical training programs. Employing a qualitative approach through thematic analysis, the study engaged ten TVL Senior High School teachers from five schools in Lanao del Sur. Utilizing semi-structured questionnaires and individual interviews, the research delved into the diverse array of teaching methodologies utilized by TVL educators. The findings elucidate the pivotal role of these teachers in employing various pedagogical approaches such as lectures, demonstrations, oral questioning, and discussions to foster effective student learning. Despite the prevalence of conventional teaching methods, the adaptability of TVL instructors was evident as they tailored their strategies to accommodate factors like resource availability, experience levels, and financial constraints, ensuring sustained student engagement and learning effectiveness. However, the study uncovered significant challenges stemming from resource constraints, particularly in practical skill development. The scarcity of materials, facilities, laboratories, and adequately trained personnel hinders the attainment of desired learning outcomes and poses obstacles in aligning with the TVL curriculum. Notwithstanding these impediments, TVL teachers showcased a steadfast commitment to student-centered learning principles and technological integration. Leveraging advancements in technology, they seek to enrich teaching practices and augment the overall learning experience. Nevertheless, inequities in access to training opportunities emerged as a barrier to professional development, impeding the full exploitation of digital tools' potential. In conclusion, this thematic analysis offers valuable insights into the nuanced landscape of TVL education, highlighting the indispensable role of teachers in navigating challenges and maximizing opportunities for student learning and skill development. The findings underscore the imperative for targeted pedagogical training interventions to address existing gaps and empower TVL educators to deliver high-quality education effectively.

Keywords: Pedagogical training programs, Teaching methodologies, Resource constraints, Student-centered learning

Introduction

One of the key components of the Philippine educational system aimed at preparing students for the demands of the workforce is the Technical-Vocational-Livelihood (TVL) track, introduced by the

Department of Education (DepEd) in 2013 as part of the K–12 curriculum. This track offers various areas of specialization, including industrial arts, computer system servicing, food processing, tailoring, animal production, apparel technology, home economics, technology and livelihood education, industrial arts, and beauty care.

Teachers in the TVL Senior High face challenges in selecting appropriate teaching methods and strategies due to the diverse subfields within Technical-Vocational-Livelihood Education. It's important to note that "teaching style" differs from "method" or "technique" as it pertains to how teachers engage with students in the classroom. The chosen approach influences how course material is delivered, student interaction, and homework management.

Both scholars and professionals agree that the chosen educational method significantly impacts students' overall knowledge and performance. However, there is limited literature dedicated to studying the methodology of teaching foreign and second languages. Similarly, research on how teachers' education and cultural backgrounds influence their classroom methods remains scarce (Wong, 2015). This gap underscores the need for further investigation into effective instructional strategies in TVL education and their implications for student learning outcomes.

Learning represents a form of growth within a world where natural processes are already unfolding. Teachers contribute their energy to the existing forces and dynamics at play (Ingold, 2020). In the context of TVL senior high education, teachers meticulously design lessons and laboratory activities to meet their students' requirements, employing various instructional techniques and exploring alternative solutions to overcome challenges.

Teachers in technical-vocational and livelihood education can be classified based on a variety of criteria, including their personal attributes, teaching styles, strategies, and years of classroom experience. Some classifications consider student characteristics, while others focus solely on teacher attributes. Certain categorizations depend on shared qualities among educators.

Research has highlighted numerous challenges faced by TVL teachers, including evolving subject content, instructional methodologies, technological advancements, legal frameworks, procedural changes, and evolving student learning needs (Basal, 2022). Additionally, teachers have expressed the need for improvements in the training provided by DepEd (Soriano & Vargas, 2021). Challenges also arise in implementing teaching strategies and integrating Information and Communications Technology (ICT) into lessons (Calanog, 2021), as well as sourcing textbooks and other educational materials (Husain, 2019). However, some studies suggest that TVL teachers may exceed the competency and instructional skill standards required by the Technical Education Skills Authority (TESDA) (Villanueva, 2018).

Given the breadth of research findings and supporting data, it is evident that further studies in TVL education are necessary. Examining the teaching strategies and techniques employed by TVL senior high teachers is essential to enhance both their instructional approaches and the quality of education received by TVL students. Conducting a contextualized study on TVL senior high teachers could prove highly beneficial for the school division and the Department of Education. Ultimately, the insights gained from this research endeavor have the potential to improve teaching practices and educational outcomes within the TVL track, thereby better-equipping students for their future careers.

In the modern educational landscape, the efficacy of teaching strategies utilized by Technical Vocational Livelihood (TVL) teachers holds significant importance for student engagement, comprehension, and overall academic success. As the TVL track plays a crucial role in providing students with specialized skills necessary for their future careers, understanding and enhancing pedagogical approaches within this

domain are paramount. This research endeavor aims to evaluate the teaching strategies and techniques employed by TVL teachers, laying the groundwork for designing tailored pedagogical training programs to meet their unique instructional needs. The rationale for this gap analysis stems from several key factors: the specialized nature of TVL education, which necessitates customized pedagogical approaches to address practical skills and vocational competencies; the importance of student-centered learning experiences in enhancing educational quality and workforce readiness; the necessity to adapt teaching strategies amidst technological advancements and evolving industry demands; and the pivotal role of TVL teachers in shaping future professionals, highlighting the need for targeted professional development initiatives. By addressing these gaps, this research endeavor seeks to contribute to evidence-based pedagogical training programs tailored to the specific needs of TVL teachers, thereby enhancing educational experiences and outcomes for students within this vital academic track.

Objectives of the Study

This research study aimed to assess the teaching strategies and techniques used by TVL Teachers: Basis for Pedagogical Training Design.

1. To understand the typical daily or weekly routines of TVL teachers, including their roles, responsibilities, and the teaching strategies and techniques commonly employed in their classes.
2. To explore the factors that influence TVL teachers' choices of teaching strategies and techniques, drawing on their experiences and reflections within the TVL context.
3. To identify specific examples of effective teaching strategies or techniques employed by TVL teachers, examining their effectiveness in engaging TVL students and the factors contributing to their success.
4. To investigate the challenges and limitations encountered by TVL teachers in implementing certain teaching strategies or techniques in the classroom, examining the factors contributing to these challenges.
5. To examine how TVL teachers ensure that their teaching strategies and techniques align with the practical skills and vocational competencies emphasized in the TVL curriculum.
6. To explore memorable teaching moments or success stories where TVL teachers' chosen teaching strategies significantly impacted student learning or engagement, examining the factors contributing to their success.
7. To investigate how TVL teachers incorporate student-centered learning principles into their teaching practice, including examples of student-centered activities or projects implemented within the TVL track.
8. To examine the influence of technological advancements on the teaching strategies and techniques used in TVL education, exploring how TVL teachers adapt to these technological changes in their teaching.
9. To explore how TVL teachers stay updated and adapt their teaching strategies to meet the evolving needs of TVL students in response to the evolving educational landscape and changing industry demands.
10. To envision the future direction of TVL education and how teaching strategies and techniques may evolve to meet the needs of future professionals within the TVL context, considering emerging trends and developments in education and industry.

Literature Review

The studies by Rinonos (2023), Vallesteros (2022), and Adanza & Sayson (2022) shed light on various aspects of Technical Vocational Livelihood (TVL) education and its implementation challenges. Rinonos highlights the competence of TVL teachers in teaching cookery, their utilization of traditional teaching methods, and the positive impact of food innovation strategies on learner skills enhancement. Vallesteros emphasizes the significant relationship between the learning environment and the employability scheme for TVL students, particularly in terms of attitude and cognitive skills. Adanza & Sayson underscore the challenges TVL program implementers face due to implementation unreadiness, although they also acknowledge the efforts made by teachers and implementers to overcome these challenges.

In light of these findings, it's evident that while TVL programs aim to equip learners with job-ready skills, challenges in implementation hinder their effectiveness. Addressing these challenges requires intensive evaluation by the Department of Education (DepEd) to understand the root causes and develop effective solutions. Moreover, the success of TVL programs hinges not only on their implementation but also on the quality thereof David (1998) emphasizes the importance of continuous feedback in teaching and learning, highlighting the role of teachers in monitoring student understanding and providing formative feedback to clarify doubts and misunderstandings.

Therefore, to enhance the effectiveness of TVL programs, DepEd must address implementation challenges, provide support for teachers and implementers, and ensure continuous feedback mechanisms are in place to improve teaching quality and student learning outcomes.

Technical Vocational Livelihood (TVL) track is a specialized education course developed by the Department of Education to strengthen and improve the skills of Senior high school students before their chosen career path. Completion and certification of TVL courses can help students achieve eligible credentials for local and overseas job qualifications. PHILPAD, 2020. Technical vocational education supports sustainable youth employment and national development (Mirjalili,2022; Terna, 2021). It improves leadership, management, and interpersonal skills (Akpan & Caleb, 2022).

Since then, studies on teaching strategies have begun to attract attention and developed rapidly with the emergence of different teaching strategies such as demonstrations, imitation teaching methods, five-segment teaching methods, mastery learning teaching strategies, situation-ceramic teaching strategies, nine-segment teaching strategies, scaffolding teaching strategies, random entry strategies, and collaborative teaching strategy, etc. (Wei & Wo, 2006).

These strategies have guided and helped students' learning to a certain extent, and have exerted a positive impact on school teaching activities. Teachers, students, and teaching content are the main constituent elements of teaching. There is a fierce discussion on which element should be centered in the formulation of teaching strategies, and corresponding different teaching strategies are proposed. Teacher-Centered Teaching Strategies The teacher-centered teaching strategy emphasizes the central position of teachers, the transfer of systematic knowledge, the role of classroom teaching, and the importance of teaching materials. As a result, traditional education centers on teachers, classrooms, and teaching materials (Zhang, 2007).

Methodology

In the research context of assessing teaching strategies and techniques used by TVL teachers, a qualitative design employing thematic analysis was employed, with semi-structured questionnaires integrated into individual interviews with participants. This approach facilitated a multifaceted exploration of teachers'

experiences and perspectives, yielding rich insights into the complexities of pedagogical practices within the TVL domain.

Flexibility Enhanced Through Interviews: Semi-structured questionnaires within individual interviews provided a dynamic framework that balanced structure with adaptability. This approach allowed for probing follow-up questions and encouraged participants to elaborate on their experiences and perspectives, thus accommodating the nuanced complexities of teaching strategies and techniques within the TVL context.

Depth of Information Amplified: Open-ended questions within interviews enabled researchers to delve deeply into the intricacies of teaching practices. Teachers had the opportunity to articulate the underlying rationale behind their instructional decisions, discuss challenges encountered, and elucidate contextual factors shaping their teaching methods. This depth of information facilitated a comprehensive understanding of the diverse array of strategies employed by TVL educators.

Standardization Ensured Within Interviews: Despite the conversational format, semi-structured questionnaires provided a level of standardization in data collection. Predetermined questions ensured key topics were consistently addressed across all interviews, enhancing the reliability and validity of the qualitative data.

Ease of Administration Maintained: Integrating semi-structured questionnaires into individual interviews maintained practicality and accessibility. Interviews could be conducted in person or remotely, contributing to the efficiency and effectiveness of the research process and facilitating comprehensive data collection from TVL teachers across diverse geographic locations.

Participant Comfort and Anonymity Emphasized: Semi-structured questionnaires within interviews offered a degree of anonymity that fostered participant comfort and encouraged candid responses. This emphasis on participant comfort enhanced the authenticity and richness of the data obtained.

Complementarity with Other Methods Utilized: Semi-structured questionnaires integrated into interviews could be complemented by additional methods such as observations or document analysis, enhancing the comprehensiveness and triangulation of the research findings.

Data Analysis Enriched: Thematic analysis of the qualitative data obtained from interviews involved rigorous coding to identify patterns, themes, and trends. This comprehensive approach ensured that findings were robust, nuanced, and reflective of the complexity inherent in educational settings.

By employing this comprehensive data-gathering procedure aligned with phenomenological principles, the study aimed to provide rich insights into the teaching strategies and techniques utilized by TVL teachers. The exploration of their lived experiences, contextual factors, and perspectives laid the groundwork for informing the design of targeted pedagogical training programs tailored to the unique instructional needs of TVL educators. Ultimately, this qualitative inquiry sought to contribute to the enhancement of educational experiences and outcomes for students within the TVL track, addressing critical gaps identified in the existing pedagogical landscape.

Results and Discussion

The thematic analysis of TVL education reveals the prevalent teaching methods, challenges, and future directions in the field. TVL teachers commonly utilize lectures, demonstrations, oral questioning, and discussions to facilitate student learning. Resource availability, teacher experience, and financial constraints significantly influence teaching strategies, with teachers adapting to challenges such as limited materials and facilities. Despite efforts, resource constraints hinder the achievement of desired learning

outcomes, particularly in practical skills development. The analysis highlights the importance of student-centered learning, technological integration, and professional development for teachers. Memorable teaching moments often involve practical activities, indicating the value of hands-on experiences. The future of TVL education focuses on infrastructure improvement, industry exposure, and aligning education with industry demands.

The findings underscore both the dedication of TVL teachers and the systemic challenges they face. Traditional teaching methods persist due to resource constraints, highlighting the need for innovative approaches to engage students effectively. However, the lack of materials and facilities impedes practical skill development, posing a significant barrier to fulfilling the objectives of TVL education.

The emphasis on student-centered learning principles and technological integration is promising, yet access to training opportunities remains unequal among teachers. Addressing this gap is crucial to fully leverage digital tools for enriching the learning experience and ensuring equitable professional development.

Looking ahead, investments in infrastructure and industry collaboration are essential for preparing TVL students for future careers. However, achieving these goals requires concerted efforts to address systemic challenges and ensure equitable access to quality education.

Conclusions

In conclusion, this thematic analysis provides valuable insights into the multifaceted landscape of TVL education. It underscores the central role of TVL teachers in employing various teaching strategies such as lectures, demonstrations, oral questioning, and discussions to facilitate student learning effectively. Despite the prevalence of traditional methods, teachers adapt their approaches based on factors like resource availability, experience, and financial constraints to ensure engagement and effectiveness in teaching.

Resource constraints emerge as significant challenges, impacting the implementation of engaging and effective teaching techniques, particularly in practical skill development. The lack of materials, facilities, laboratories, and trained teachers hampers the achievement of desired learning outcomes and exacerbates difficulties in aligning with the TVL curriculum.

Despite these challenges, teachers demonstrate a commitment to student-centered learning principles and technological integration, leveraging advancements in technology to enrich teaching practices and enhance the learning experience. However, disparities in access to training opportunities hinder professional development and pose barriers to fully harnessing the potential of digital tools.

Looking towards the future, improving infrastructure, providing industry exposure, and ensuring quality education emerge as key priorities for advancing TVL education. The evolution of teaching strategies and techniques is expected to leverage improved facilities, industry practices, and hands-on learning experiences in TVL laboratories, aligning education with industry demands and equipping students with practical skills for their future careers. Overall, there is a strong emphasis on bridging the gap between classroom learning and real-world application, emphasizing the relevance and effectiveness of TVL education in preparing students for the workforce.

Recommendations

Based on the thematic analysis of TVL education and the identified challenges and opportunities, several recommendations can be made to enhance the quality and effectiveness of TVL teaching and learning:

1. Investment in Infrastructure: Governments and educational institutions should prioritize investment in infrastructure, including the provision of adequate materials, facilities, laboratories, and equipment. This will enable teachers to implement engaging and effective teaching techniques and facilitate practical skill development among students.
2. Professional Development: Ensure equitable access to professional development opportunities for TVL teachers. This can be achieved through organizing regular training sessions, workshops, and seminars focused on innovative teaching methods, technological integration, and industry-relevant skills.
3. Promotion of Student-Centered Learning: Encourage the adoption of student-centered learning principles by providing teachers with resources and support to design and implement interactive and hands-on activities that promote active student engagement, critical thinking, and problem-solving skills.
4. Technological Integration: Provide teachers with access to technology and training on how to effectively integrate digital tools into their teaching practices. This includes utilizing online resources, educational apps, and social media platforms to enhance lesson delivery, communication, and collaboration.
5. Collaboration with Industry Partners: Foster partnerships between educational institutions and industry stakeholders to provide students with exposure to real-world work environments, industry-relevant skills, and opportunities for internships, apprenticeships, and job placements.
6. Curriculum Alignment and Revision: Regularly review and update the TVL curriculum to ensure alignment with industry demands and emerging trends. This should involve consultation with industry experts, stakeholders, and educators to identify relevant skills and competencies required for the current job market.
7. Addressing Geographical Disparities: Develop strategies to address geographical constraints and ensure equitable access to quality TVL education, particularly in remote and underserved areas. This may involve the use of distance learning technologies, mobile classrooms, or outreach programs.
8. Monitoring and Evaluation: Establish mechanisms for monitoring and evaluating the effectiveness of TVL programs, teaching methods, and student learning outcomes. This will enable continuous improvement and evidence-based decision-making in TVL education.

By implementing these recommendations, stakeholders can work towards overcoming the challenges faced by TVL education and creating an environment that fosters the holistic development of students, equipping them with the practical skills and knowledge needed for success in their future careers.

Pedagogical Training Design based on the thematic analysis of TVL education and the identified challenges and opportunities, structured in a table format:

Recommendation	Description
1. Investment in Infrastructure	- Prioritize investment in infrastructure such as materials, facilities, laboratories, and equipment.
	- Enable teachers to implement engaging teaching techniques and facilitate practical skill development among students.

Recommendation	Description
2. Professional Development	- Ensure equitable access to professional development opportunities for TVL teachers.
	- Organize regular training sessions, workshops, and seminars focused on innovative teaching methods and industry-relevant skills.
3. Promotion of Student-Centered Learning	- Provide resources and support for teachers to design and implement interactive and hands-on activities.
	- Encourage active student engagement, critical thinking, and problem-solving skills through student-centered learning approaches.
4. Technological Integration	- Provide access to technology and training on integrating digital tools into teaching practices.
	- Utilize online resources, educational apps, and social media platforms to enhance lesson delivery and collaboration.
5. Collaboration with Industry Partners	- Foster partnerships between educational institutions and industry stakeholders.
	- Provide students with exposure to real-world work environments, industry-relevant skills, and internship opportunities.
6. Curriculum Alignment and Revision	- Regularly review and update the TVL curriculum to align with industry demands.
	- Consult with industry experts and educators to identify relevant skills and competencies required for the current job market.
7. Addressing Geographical Disparities	- Develop strategies to ensure equitable access to quality TVL education in remote and underserved areas.
	- Utilize distance learning technologies, mobile classrooms, and outreach programs to overcome geographical constraints.
8. Monitoring and Evaluation	- Establish mechanisms for monitoring and evaluating TVL programs and student learning outcomes.
	- Use data to inform evidence-based decision-making and continuous improvement in TVL education.

This Pedagogical Training Design outlines actionable recommendations for enhancing the quality and effectiveness of TVL teaching and learning, addressing various aspects such as infrastructure, professional development, student-centered learning, technological integration, industry collaboration, curriculum alignment, addressing geographical disparities, and monitoring and evaluation.

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