

## **Faculty Qualification, Teaching Methodology and Assessment of the Diploma Courses: Realigning the Programs Towards the Inclusion of Children and Youth with Special Needs**

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### **Abstract**

This study aimed to determine the extent of implementation of the diploma technology program among Technical Vocational Education Institutions. This study utilized a descriptive-quantitative research design. Purposive sampling was used in selecting the respondents of the study, and these were administrators and faculty of selected technical vocational institutions in the Zamboanga Peninsula area. The findings revealed that both the Private and Public Technical vocational Education Institutions offering the Diploma of Technology Program comply with the requirements of TESDA in terms of faculty qualifications, teaching and assessment methodology, and instructional facilities. Technical vocational education institutions in Zamboanga Peninsula have similar extents of implementation of the diploma technology program in terms of the teaching methodology, regardless of the type of institution, whether public or private, and in terms of the instructional facilities, regardless of the type of institution and regardless of the level of certification.

**Keywords:** *Faculty Qualification, Teaching Methodology, Assessment, Diploma Courses, Inclusion of Children and Youth, Special Needs, TESDA*

### **Introduction**

To scale up technical education and address the need to further improve the workers' ability to compete internationally, the Philippines had developed a Level 5 (Diploma) Qualification's framework. A consistent national and international benchmarked structure for all qualifications issued in the Philippines was established in 2012 with the institutionalization of the Philippine Qualifications' Framework (PQF) by Executive Order No. 83. The PQF represents a nationwide quality-assured framework designed to develop, recognize, and award qualifications. These qualifications are based on the standards of knowledge, skills, and values acquired through diverse educational and training methods by students and employees in the Philippines. It promotes lifelong learning and education for all especially for learners with special needs.

The right to inclusive education ensures that all children and youth, including those with special needs, have equal access to a high-quality education. This global recognition of inclusive practices highlights the importance of creating learning environments that cater to diverse learning styles, abilities, and backgrounds. However, despite progress in various educational settings, diploma courses aimed at training educators often struggle to effectively incorporate strategies for accommodating children and youth with special needs.

The qualifications of faculty members, teaching methods, and assessment procedures play crucial roles in shaping the educational experiences of learners, particularly when it comes to individuals with special needs. It is important to recognize that the needs and learning styles of children and youth with disabilities, developmental delays, or exceptional abilities are different from those of their neurotypical peers.

To ensure the success of inclusive education within diploma programs, it is vital to thoroughly examine how faculty members are prepared, how they deliver instruction, and how learners' achievements are assessed. Through an examination of the relationships between faculty qualifications, teaching methods, and assessment practices in diploma courses, this study seeks to offer valuable insights to education policymakers, administrators, and educators.

Furthermore, as stated by Asebiomo's study (2009) and cited by Jaukal J. M (2022) in her research titled "Challenges on the Implementation of the Three-year Diploma Curriculum in TESDA Region IX," the effectiveness of the new curriculum hinges on its proper execution. The term "curriculum implementation" pertains to the active participation of teachers in daily classroom activities, including monitoring students' progress and assessing their achievements. It is the responsibility of teachers to carry out the new curriculum and ascertain its impact on students' learning outcomes.

The research findings will contribute to the development of targeted interventions and reforms, ultimately transforming programs to create a more inclusive educational landscape that caters to the needs of every child and youth, regardless of their abilities or disabilities. The primary objective of this research is to present practical and effective recommendations for reshaping diploma programs to promote the inclusion of children and youth with special needs. By addressing faculty qualifications, teaching methodologies, and assessment practices, higher education institutions can establish an environment that embraces diversity and ensures equitable learning opportunities for all students. Implementing these recommendations may entail revising curricula, conducting faculty development programs, and integrating inclusive practices into the broader institutional framework.

### **Related Literature and Studies**

#### **Curriculum Assessment**

Mukhter et. al., (2022) states that one of the steps in developing a curriculum is curriculum assessment. Evaluation of the curriculum is essential during both the creation and implementation phases of the program, not only after it has been put into place. The process of developing curricula includes formative assessment. During the construction of the curriculum, it is used in smaller contexts and tested to determine its efficacy. At the same time, summative evaluation seeks to assess the entire effectiveness of the created and carried out program (Ornstein & Hunkins, 2009).

There are several ways to interpret evaluation. Assessment in the context of the curriculum include acquiring data on students, assessing instructor efficacy, and documenting student-teacher interactions. Finding the activities in a program's strengths and shortcomings is another aspect of evaluation. A model is a conceptual illustration illustrating the relationship between an activity and other related elements. Evaluation is a way of obtaining information and using it in decision-making. It is the process of gathering information to enable a decision to be made as well as the process of determining a decision on a specific matter. A curriculum or program can be evaluated using a number of different models as a guide. The abbreviation CIPP, which stands for context evaluation, input evaluation, process evaluation, and product evaluation, served as the inspiration for the fundamental idea of this paradigm.

According to Stufflebeam (2003), A thorough framework for executing formative or summative assessment is provided by the CIPP model. Because the CIPP model is intended for curriculum improvement and decision-making, numerous researchers and evaluators have used it to assess the success of programs and curricula in institutions of higher learning both domestically and internationally (Stufflebeam & Shinkfield, 1985). The CIPP model is an evaluation strategy that seeks to assess a program for improvement, particularly those in the human services and education sectors. (Aziz et al., 2018). Stufflebeam (2008) accepts that the CIPP assessment methodology is a tool (tools) that may be used to improve a program for the intended benefit of people. According to Stufflebeam (2003), The major objective of CIPP is not to prove but to improve, according to the quotation above, "the CIPP approach is the view-based, and the main purpose of the assessment is not to prove but to improve." This model's methodology is built on two key evaluation presumptions. The first presumption is that evaluation is crucial to initiating and organizing change. The second premise, however, is that assessment is a supplemental element to typical institutional processes. (James, 1993).

#### **Curriculum and Instructional Transformation**

Collaboration between schools and workplaces has the potential to bring about significant improvements to traditions TVET (Technical and Vocational Education and Training) curriculum and training practices. It is crucial for industries to be involved in this process, as they play a key role in preparing students for the transition from schools to the workplace after graduation (Obioma, 2015; Scott, 2014). To achieve this, various forms of transformation can be incorporated into TVET curricula, such as competency-based education, workplace learning, and orientation education that focuses on occupation-to-job-task analysis (Scott, 2014).

In order for these changes to be effective, teachers need to be equipped with the necessary knowledge and skills to implement the new curriculum appropriately (Wiles & Bondi, 2014).

To ensure the proper implementation of new curricula, it is essential that teachers have confidence in both the execution and the purpose of the materials they use. This means that they must trust that the materials will help them effectively deliver the curriculum, and that they understand the objects and goals of the curriculum (American Institute for Research, 2016; Early, Rogge, & Deci, 2014). To help instructors with curriculum changes, it may be helpful to determine the factors that encourage or hinder their successful implementation. According to Lochner, Conrad, and Graham (2015), teachers are crucial to whether a curriculum is provided consistently, effectively, and efficaciously to enable the support of student advancement and growth.

Furthermore, the literature presents evidence that highlights importance of using a curriculum consistently in order to maximize its benefits for students. (McNeill, Katsh-Singer, Gonzalez-Howard, & Lopez, 2016). It is necessary to conduct research on the factors that prevent a curriculum from being fully implemented. Determining teachers' experiences with a new innovation or change would be necessary to comprehend the hurdles involved (AIR, 2016). The significance of accurate and faithful curriculum implementation has become increasingly crucial for student success, regardless of their individual academic requirements, due to the introduction of Every Student Succeeds Act (ESSA) in 2017 in the United States. This has led to heightened state and administrative expectations for proper curriculum implementation. (United States Department of Education [USDOE], 2017) Since improving student success is one of the objectives of ESSA (USDOE, 2017), figuring out what inhibits instructors from faithfully implementing the curriculum will require evaluation (USDOE, 2017). The current proposed study is related to identifying teacher concerns since understanding the potential obstacles that hinder teachers from implementing new curricular changes is crucial.

Administrators can improve the success rate of curriculum implementation by addressing these issues both before and during the process, providing the necessary resources and support to help teachers navigate the changes. (AIR, 2016) This addresses the obstacles instructors frequently mention, but also draws attention to potential explanations for why complete curriculum implementation does not take place. For several decades, advocates of Standards-based reform (SBR) have asserted that by implementing rigorous academic standards, a well-aligned curriculum, and accountability measures, teachers' practices will improve, leading to increased student success (Clune, 2001; Ogawa et al., 2003). This theory of change has been a central aspect of state and federal policies, notably seen in the No Child Left Behind Act of 2001. However, as SBR approaches its third decade, there is growing dissatisfaction with the effectiveness of standards implementation, the impact of the standards movement on student achievement, and persistent performance disparities (Edgerton & Desimone, 2018; Loveless, 2020; Polikoff, 2020).

As a result of this discontent and the increased flexibility offered by the Every Student Succeeds Act, educational leaders, foundations, and scholars have recently shifted their focus back to the curriculum as a crucial tool for effectively implementing standards (Edgerton, 2019; Polikoff, 2018). When it gets closer to the classroom, curriculum is often viewed in three different ways (see Kurz et al., 2010).

The intended curriculum encompasses the system-wide official curriculum, including academic standards. The phrase "enacted curriculum" relates to how educators provide such material to students. The understanding that pupils really acquire during a class is referred to as the achieved curriculum. The written curriculum is also included in some concepts (e.g., textbooks and supplementary

materials (Tarr et al., 2006). Standards-aligned curriculum, while promising, faces several challenges that hinder its effective impact on instruction. These challenges, as highlighted by Polikoff (2018), revolve around three key areas: identifying high-quality materials, encouraging districts and schools to adopt them, and motivating teachers to utilize them successfully. Overcoming these obstacles requires providing sufficient time for educators to comprehend and implement the new curriculum in alignment with other district or school objectives, as highlighted in professional learning hurdles outlined by Allen & Penuel (2015), Obara & Sloan (2010), and Penuel et al. (2011). These difficulties illustrate that curriculum implementation involves both technical and adaptive complexities (Heifetz et al., 2009). Technical difficulties can be addressed with existing solutions, practices, tools, and professional guidance. Finding high-quality curriculum materials is difficult due to the technical difficulty in determining curriculum alignment, which leaders can overcome by utilizing tried-and-true, expert-driven processes and methods.

In addition, governments have been considering curriculum reviews as a strategy to give students the information, skills, and competences they will need in the future due to the demand from international enterprises. In reality, a number of OECD nations, including Estonia, Finland, Japan, Norway, and Wales (United Kingdom), have recently engaged in curriculum reform. The Education 2030 project, run by the OECD, examines the knowledge and abilities required for students to succeed in the twenty-first century. More than forty nations are involved (OECD, 2018). In addition to these international tendencies, implementing curriculum reforms is a significant problem that many nations face. In order for the new curriculum to be effective, it must be adapted into classroom procedures, according to Fullan (2015), who argues that curriculum implementation corresponds to the ways to achieve desired objectives. Implementation has been extensively studied in various fields, including organizational change, public administration, public policy, and education. When it comes to curriculum reform, the traditional perspective has been "top-down," aligning with practices seen in these domains. In this approach, the success of implementation was judged based on how well the implementers, such as teachers, adhered to and faithfully followed the revised curriculum (Castro Superfine, Marshall, and Kelso, 2015; Wedell and Grassick, 2017). However, this approach no longer aligns with the current trend of autonomy-centered curriculum enactment, where teachers play a critical role as both policy enactors and mediators. As a result, the concept of fidelity itself becomes outdated in this context (Snyder, Bolin, and Zumwalt, 1992; Braun, Maguire, and Ball, 2010).

In practice, an approach to implementation that emphasizes the autonomy and discretion of implementers has been more prevalent recently, moving toward a more "bottom-up" strategy. According to this perspective, teachers' agency is acknowledged as being vital to curriculum implementation since they are active participants who should be considered at every stage of the reform process rather than passive executors who only play a part at the end. As a result, "implementation integrity" has replaced "implementation fidelity," which is defined as "the extent to which instructors' adaptations of materials are consistent with the curricular aims and guiding concepts underpinning the structures of curriculum" (Penuel, Phillips and Harris, 2014). According to this perspective, which is shared by this study, the implementation of a curriculum covers a wider range of themes than the traditional "teacher fidelity," such as stakeholder participation and other contextual elements that may have an impact on the final results of implementation. The execution of curricular reform while considering its larger context from a broad implementation perspective. The implementation framework created by Viennet and Pont (2017) and improved by the OECD (2020) is used to compile a list of the most important issues that policymakers should take into account when implementing curriculum renewal. In order to make this work more action-oriented, it builds on the literature on curriculum reform and draws on effective strategies and case studies from other nations. This paper contends that while specific details may vary, certain universal principles could remain valid across different contexts. This is because each country possesses its unique history, values, culture, and institutional framework, all of which influence the educational system and dictate the most effective approach to curriculum reform in its specific setting.

Reforms to the curriculum that directly alter the learning objectives, i.e., what skills, information, attitudes, and values students should gain. According to this definition, curriculum possesses a

significant cultural and political aspect as it shapes a society's worldview by determining the essential knowledge and skills to impart to its citizens. In essence, the curriculum reflects a broader social and political consensus (Amadio et al., 2016) and should evolve in line with societal changes. Therefore, "curriculum reforms" are efforts to assess or update the content of information, including its selection and organization, and address issues related to student learning (Gilbert, 2010). To adapt to the rapidly changing world, countries have recently undertaken curriculum reforms at varying speeds and through different approaches, aiming to better equip students with the necessary skills and attitudes for the 21st century. The interest in curriculum reforms has been driven not only by the need to ensure students' readiness for the modern era but also by the potential impact of adopting a particular curriculum on students' learning outcomes (Chingos, Russ, and Whitehurst, 2012; Boser, Chingos, and Straus, 2015; Steiner, 2017).

### **Research Questions**

What is the extent of implementation of the diploma technology program among Technical Vocational Education Institutions in terms of:

- a. faculty qualification and
- b. teaching methodology and assessment?

### **Methodology**

This research study focused on evaluating the alignment and implementation of the diploma of technology curriculum with the program learning outcomes based on the Sydney Accord, as well as its compliance with TESDA requirements. The study specifically concentrated on administrators and faculty members involved in diploma programs at both Public and Private Technical Vocational Institutions in the Zamboanga Peninsula area for the School Year 2018-2021.

The primary goal of the study was to outline the research process, including details about the research sites, the selection of respondents, and the data collection procedures. By doing so, the study aimed to ensure the reliability and credibility of the findings and ultimately contribute to informed decision-making. For this research, a quantitative research approach was employed. The sampling technique used was purposive or judgmental sampling, where the most relevant and representative group or sample was selected to provide valuable data and insights for the study. The chosen sample group represented the entire population of interest and consisted of participants from five Technical Vocational Education Institutions in the Zamboanga Peninsula area.

To gather data on curriculum alignment and implementation, a researcher-made survey questionnaire checklist was utilized. Additionally, the researcher formulated hypotheses to explore significant differences in the extent of alignment and implementation of the curriculum among various categories defined by the researcher. Throughout the study, ethical principles of research were strictly adhered to. Measures were taken to ensure the confidentiality and anonymity of respondents. Written permission was obtained from the school administrators to gather data, and participants had the option to withdraw their participation at any point in the study if they chose not to continue.

### **Results and Discussions**

#### **On the Extent of implementation of the diploma programs in terms of faculty qualification**

Table 1. presents the extent of implementation of the diploma programs in terms of faculty qualification. The table shows that the statements which obtained the highest weighted mean was "Faculty teaching major courses are holders of national certificates or NCs certified by TESDA" with a "3.80" and described as Fully Implemented". This means the Technical Vocational Education Institution adheres to the regulations and policy of the TESDA on the faculty requirements in the offering of the diploma of technology among TVEIs. This implied that, the Technical Vocational Education Institutions in the region implements the National Certification among faculty to handle the major courses for the technology program. This further implies that the TVEIs fully implement the policy on the faculty requirements of obtaining the National Certification of the Technical Education and Skill Development Authority.

On the other hand, the statement which obtained the lowest weighted mean was “Faculty teaching diploma programs holds a Master’s degree in education or engineering” with “2.66” and verbal description of “good/strong”. This means that the Technical Vocational Education Institution offering the diploma in technology does not fully implement the Master’s Degree as faculty requirement for the faculty to be part of the Technology program. This implies that, not all teachers are Masters’ Degree holder in the implementation of the diploma of technology.

**Table 1. Extent of Implementation of the Diploma Programs in Terms of Faculty Qualification**

Statements	Weighted mean	Description
1. Faculty teaching diploma programs holds a Master’s degree in education or engineering.	2.66	Good/Strong
2. Faculty teaching general education courses are holders of PRC Professional licenses.	3.21	Good/Strong
3. Faculty teaching major courses are holders of national certificates or NCs certified by TESDA.	3.80	Fully Implemented
4. Faculty are holders or trained in trainer methodology (TM1)	3.55	Fully Implemented
5. Faculty qualifications are aligned to the courses they are handling.	3.48	Fully Implemented
6. Faculty have undergone industry immersion in the field of specialization.	3.12	Good/Strong
7. Faculty acquired relevant trainings and seminars	3.43	Fully Implemented
8. Faculty are engaged in professional organizations	2.91	Good/Strong
9. Faculty are engaged in research works	2.75	Good/Strong
10. Faculty has authored learning materials and books	2.97	Good/Strong
<b>Average Weighted Mean</b>	<b>3.19</b>	<b>Good /Strong</b>

**Legend:**  
 3.28 – 4.00 – Fully implemented  
 2.52 – 3.27 – Good/Strong  
 1.76 – 2.51 – Moderate  
 1.0 – 1.75 – Very Poor Implementation

Moreover, the statement “Faculty are engaged in research works” obtained the second lowest mean of 2.75 with verbal description of “Good” though collectively TVEI’s have good research works engagement, this means that not all among TVEI’s faculty are not fully engaged in conducting research works which implies that there are limited papers are presented in research fora and limited research publication among technical vocational education institutions in Zamboanga peninsula area.

The average weighted mean was “3.19” which was described as “Good/Strong”. This means that the extent of implementation of the diploma of technology program in terms of the faculty requirement was good or strong. It could be implied that the implementation in terms of the faculty requirements is not as extensive as expected based on the policy in the Technical Vocational Education. According to research conducted by the Japan International Cooperation Agency (JICA) on technical and vocational education, as cited by Alam et al. (2009) in their work "Opportunities for Growth," teachers have a vital role in fostering opportunities for growth. This includes conducting research and publishing research findings. Furthermore, TVET institutions have the responsibility of educating and producing highly skilled technicians, managers, and engineers. Technical teachers are expected to engage in teaching, research, and community service. Additionally, they are tasked with providing training, counseling, and acting as role models for students, encouraging professional competence, and upholding academic standards and excellence (Amankwah & Swanzy, 2011; Stephens, 2015).

Table 2. presents statements on the extent of implementation of diploma programs in terms of teaching methodology and assessment. It shows that statement 6 “Industry immersion/OJT, hands-on experience, simulation and demonstration methods to practice skills are utilized” obtained the highest mean of 3.76 with its verbal description of “strongly agree” and interpreted as “highly implemented.” It means that institutions were sending their students for industry immersion/OJT as part of the curriculum exposing students on work-based learning.

**Table 2. Extent of implementation of the diploma programs in terms of teaching methodology and assessment**

Statements	Weighted mean	Description
1. Utilizes Competency-Based training (CBT) approach and learning materials.	3.66	Fully Implemented
2. Provide a variety of opportunities/activities for students to practice new knowledge and skills for mastery learning	3.65	Fully Implemented
3. Integrate knowledge, skills and values across learning areas in order to prepare learners for the world of work.	3.69	Fully Implemented
4. Integrates 21 <sup>st</sup> century skills across learning competencies.	3.60	Fully Implemented
5. Provide activities that encourage learners to think critically, to solve problems creatively and to participate actively.	3.54	Fully Implemented
6. Industry immersion/OJT, hands-on experience, simulation and demonstration methods to practice skills are utilized.	3.76	Fully Implemented
7. Uses performance assessment practices that are valid, reliable, fair and consistent.	3.69	Fully Implemented
8. Use both formative, summative assessment and institutional competency assessment to provide feedback about each learners on their current achievement against some expected learning outcomes.	3.71	Fully Implemented
9. Use baseline assessment at the beginning of a new set of learning activities to find out what the learners already know and can demonstrate.	3.62	Fully Implemented
10. Use assessment tools such as observation sheets, rubrics, progress and achievement charts and Trainee’s record book/TRB’s are utilized	3.54	Fully Implemented
<b>Average Weighted Mean</b>	<b>3.65</b>	Fully Implemented

**Legend:**  
 3.28 – 4.00 – Fully implemented  
 2.52 – 3.27 – Good/Strong  
 1.76 – 2.51 – Moderate  
 1.0 – 1.75 – Very Poor Implementation

This suggests that providing students with transversal skills would enhance their adaptability in the professional world. It is important for learners to show comprehension of the industry, enabling them to relate classroom knowledge to real-life situations and tackle real-world issues (Department of Basic Education, 2019). This aligns with the observation made by Smith and Tyler (2011) that teachers often establish a work-based environment when delivering practical lessons. However, statement 10 on the “Use assessment tools such as observation sheets, rubrics, progress and achievement charts and Trainee’s record book/TRB’s are utilized” obtained a lowest mean of 3.54 with its verbal description of “fully implemented.” It means that, faculty utilizes authentic assessment tools in evaluating their

student performance and students are able to monitor their own progress as well by the used of trainees record book.

Overall, on the implementation of teaching methodology revealed an average weighted mean of “3.65” whereas described as “Fully Implemented”. This means that the diploma of technology program among TVEI’s fully implements competency-based training as their teaching methodology. This implies that, the Technical Vocation Education Institution offering the Diploma of Technology Program complies with the training regulations of TESDA .

### **Conclusion and Recommendations**

Technical vocational education institution in Zamboanga Peninsula have similar extent of implementation of the diploma technology program in term of the teaching methodology regardless of the type of institution may it be a public of a private and is being implemented in terms of the instructional facilities regardless of the type of institution and regardless of the level of certification. And differ in the implementation of the diploma technology program in terms of instructional facilities according to the number of programs. Further, they do not differ in the implementation when grouped according to number of years the program was offered. Institutions which offer the Diploma of technology Program with 5 years already have better implementation of the diploma technology program than the TVEIs with only 2 years of implementation of the programs. Hence, this study recommends that administrators of private institutions may consider offering additional Diploma of Technology programs to cater more students to help increase employability of graduates, gainful occupations and self-employment. The institution may also consider creating a committee on accreditation and disseminate awareness and’ understanding of accreditation in the institution as a tool for improving the quality of TVET institutions and build their capacity to start an actual accreditation process using APACC criteria in order to determine the adequacy of human, physical, information resources and in order to provide a firm foundation for its institutions or programs.

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