

Implementation and Challenges of Diploma Programs: Insights from TESDA-Aparri Polytechnic Institute

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Abstract. Technical-Vocational Education and Training (TVET) contributes significantly to national development by equipping individuals with job-ready skills and offering alternatives to four-year degrees. This study assessed the implementation of the three diploma programs, namely Diploma in Hospitality Management, Diploma in Civil Engineering Technology, and Diploma in Electrical Engineering Technology, at TESDA-Aparri Polytechnic Institute (TESDA-API). Employing a descriptive-correlational design, the study involved 10 focal persons, 18 faculty members, 66 students, and 35 alums, selected through systematic sampling, whose data were collected using three validated researcher-made questionnaires. The diploma programs at TESDA-Aparri Polytechnic Institute (TESDA-API) demonstrated a generally high level of implementation, with notable strengths in areas such as assessment practices and internship facilitation, implying that the diploma programs are all aligned with TESDA training regulations. However, among the most notable issues among the students and faculty members is the difficulty in managing academic responsibilities alongside other obligations, such as part-time work or family duties and is aggravated by the limited access to modern and industry-standard equipment and outdated or inadequate learning materials, which compromises the effectiveness of hands-on and may hinder students from acquiring the competencies needed for workforce readiness. Academic support, such as tutoring or mentoring, is also another vital input in the system to address issues related to preparation and remediation among students. The study recommends enhancing quality assurance, revising the curriculum, developing faculty, expanding industry linkage, and implementing performance-based scholarship incentives to strengthen post-diploma outcomes.

Keywords: Challenges encountered; Diploma programs; Level of implementation; TESDA.

1.0 Introduction

Technical-Vocational Education plays a central role in the evolving landscape of education, serving as a critical avenue for skills development and workforce preparation. It leads to a variety of professional opportunities, helps close the skills gap in the labor market, and supports both career growth and lifelong learning. At both individual and societal levels, Technical-Vocational Education makes a significant contribution to economic growth and development. It provides opportunities not only for individuals unable to pursue traditional four-year degrees but also for those seeking to enhance or acquire new skills through Technical-Vocational Education and Training (TVET).

As part of the government's frontline efforts to promote economic growth and reduce poverty, TVET aligns with national policies aimed at delivering practical skills training while fostering sustainable development (TESDA, 2020). Studies emphasize the importance of aligning TVET diploma programs with industry standards, educational goals, and the needs of enrolled students. Key factors such as instructional delivery, curriculum design, facilities, and resources must be regularly evaluated. Aligning the curriculum with current labor market demands is essential to ensure that students acquire the skills employers require. Instructional effectiveness should be assessed in terms of student engagement, innovative teaching strategies, and technology integration, all of which are critical for enhancing learning outcomes (Varma & Malik, 2023; Kamaruzaman et al., 2024). Facilities and resources—including equipment, learning materials, and laboratories—must adhere to established standards to support hands-on training and ensure safety and accessibility for all students. By assessing these areas, institutions can identify gaps, improve educational quality, and maintain program accreditation and credibility. Regular evaluation also enables institutions to stay responsive to the evolving needs of the workforce and to provide opportunities that help students succeed in their chosen fields.

Nevertheless, there are persistent gaps in diploma programs that may undermine their long-term sustainability and relevance. These include misalignment with industry demands, outdated curricula, inadequate infrastructure, and insufficient faculty training. Such limitations can hinder program responsiveness to market changes, reduce graduates' workplace readiness, and impede adaptation to technological advancements (Reyes & Cruz, 2021). Jolo et al. (2023) also note that a lack of industry partnerships and resource constraints often limit opportunities for hands-on training and internships, thereby affecting student preparedness. While diploma programs are often praised for providing accessible, applied education, they also face threats from changing global standards and competition from academic programs. Regular assessment is therefore vital, not only to leverage opportunities such as the integration of digital tools but also to address weaknesses and ensure sustained relevance and impact.

This study draws upon Human Capital Theory and Tinto's Student Integration Model as its theoretical framework. These theories emphasize the role of education and training in developing individuals' skills and knowledge to enhance productivity and employability, as well as the importance of connecting students' program experiences to successful transitions into employment or further education. TESDA's mandate is best fulfilled through curriculum alignment with industry standards and licensure requirements, with a strong emphasis on internships and assessment mechanisms. However, challenges remain in fully aligning program implementation with labor market realities, particularly in areas such as instructional delivery, industry linkages, trainer competency, and access to quality learning resources.

Palestina, Pangan, and Ancho (2020) highlight the importance of qualified faculty, adequate facilities, and relevant curriculum content in the successful implementation of educational programs. Grounded in Bronfenbrenner's Ecological Systems Theory, their study underscores how systemic factors influence curriculum implementation in the Philippine context. Discrepancies in these subsystems can hinder the achievement of program goals. As such, these components should be aligned not only with institutional mandates but also with external demands. Integrating industry linkages into technical-vocational education enhances both employability and entrepreneurial potential. Haron et al. (2019), for example, emphasize the need to align vocational training with industry needs to ensure that graduates possess the relevant skills sought by employers.

Despite TESDA's ongoing efforts to standardize and improve its training programs, there remains a notable gap in the literature regarding the actual level of implementation and the institutional challenges experienced at the training center level. Most existing research examines TESDA programs from national or sectoral perspectives, with limited empirical focus on specific institutions such as the TESDA-Aparri Polytechnic Institute. This gap highlights the need for localized insights to inform targeted improvements and policy reforms. By examining the implementation level of diploma programs and the particular challenges faced by this institution, the present study aims to generate actionable recommendations that will contribute to more effective program delivery and improved learner outcomes.

2.0 Methodology

2.1 Research Design

This study employed a **descriptive-analytical design**. It described the profile of the respondents – specifically the students and alumni – and their assessment of the level of implementation of the diploma programs, as well as the challenges they encountered. Furthermore, it compared their assessments and the challenges regarding their demographic profiles.

2.2 Participants and Sampling Technique

This study was conducted at one of the institutions affiliated with the Technical Education and Skills Development Authority (TESDA) – the Aparri Polytechnic Institute (TESDA-API) – which offers three diploma programs: Diploma in Civil Engineering Technology (DCET), Diploma in Electrical Engineering Technology (DEET), and Diploma in Hospitality Management (DHM). Three groups of respondents were involved in the study to gather the necessary data. First, eighteen (18) faculty members teaching in the diploma programs were selected using systematic random sampling. Second, the same sampling technique was used to select sixty-six (66) student respondents from the diploma programs, ensuring reasonable representation from each program. Lastly, thirty-five (35) alumni were also included to assess the level of implementation of the diploma programs and to share their level of readiness for post-diploma opportunities.

2.3 Research Instrument

This study utilized researcher-made questionnaires to collect the necessary data. Students and alumni were required to complete a profile survey questionnaire. At the same time, all three respondent groups were asked to assess the diploma programs using the Diploma Program Implementation Evaluation Tool (DPIET) and the Challenges Encountered Inventory Questionnaire (CEIQ) – both developed by the researchers. These instruments were content-validated by the diploma program coordinators, the Vocational Instruction Supervisor, and the Vocational School Administrator. To ensure reliability, a Cronbach's alpha test was conducted on the actual data, yielding coefficients of 0.832 for the DPIET and 0.788 for the CEIQ. Both instruments utilized a 5-point Likert scale.

2.4 Data Gathering Procedure

Once the study was approved and the research panel's recommendations were complied with, permission to collect data from the target respondents was sought from the head of TESDA-API, specifically the Vocational School Administrator. Upon approval, the researcher coordinated and arranged schedules with the target respondents, starting with faculty members and then students, in consultation with their respective class advisers. The alumni were contacted through Google Forms and other electronic messaging platforms. The researcher personally collected data from the aforementioned respondents to ensure that all responses were provided accurately and completely. Data organization, cleaning, and tallying were conducted immediately after collection. The statistical analysis was outsourced to an assigned statistician, who used SPSS version 21 to process and analyze the data.

2.5 Data Analysis Procedure

Descriptive statistical tools, such as frequencies, percentages, ranks, means, and standard deviations, were used to describe the profile of the students and alumni. Weighted means from 5-point Likert scales were used to describe the level of implementation of the Diploma Programs, which were interpreted as:

<u>Scale</u>	<u>Statistical Limits</u>	<u>Response</u>	<u>Interpretation</u>
5	4.50 – 5.00	Optimally (Fully operational, with all components executed efficiently and effectively; all standards are met, and no significant issues are present)	Very high
4	3.50 – 4.49	Fully (Most program components are well-executed, with minor issues or gaps; standards are generally met, and implementation is commendable overall)	High
3	2.50 – 3.49	Substantially (Some components of the program are adequately executed, but several areas require improvement to fully meet standards)	Moderate
2	1.50 – 2.49	Barely (Many components of the program are poorly executed, with significant gaps or deficiencies that hinder achieving standards.)	Low
1	1.00 – 1.49	Not implemented (The program implementation is ineffective, with most components not meeting standards, and significant improvements are necessary.)	Very low

Weighted means from a 5-point Likert scale were also used to describe and interpret the challenges encountered by students and faculty members in implementing the various diploma programs. The descriptive interpretations corresponding to the weighted mean scores are as follows:

<i>Scale</i>	<i>Statistical Limits</i>	<i>Interpretation</i>
5	4.20 – 5.00	Always
4	3.40 – 4.19	Often
3	2.60 – 3.39	Sometimes
2	1.80 – 2.59	Seldom
1	1.00 – 1.79	Never

Comparison tests were conducted using an independent samples t-test for variables with two groups, and a one-way analysis of variance (ANOVA) for variables with three or more groups. All hypotheses were tested at the 0.05 level of significance.

2.6 Ethical Considerations

To ensure that this study strictly adhered to ethical standards in the research process, measures related to informed consent, respect for privacy and anonymity, data handling and utilization, and voluntary participation were undertaken. Prior to data collection, all respondents, as well as the relevant authorities of TESDA-Aparri Polytechnic Institute (TESDA-API), were fully informed about the nature, purpose, and objectives of the study.

The study posed no physical, psychological, or social harm to the respondents. All questionnaires were designed to be non-invasive and respectful. Participation was entirely voluntary, and respondents had the right to decline to answer any question or to withdraw from the study at any stage. The ultimate aim of the research – to improve the quality of training programs – was intended to benefit both current and future students and faculty members of TESDA-API. Respondents' identities were kept strictly confidential, and no personally identifiable information, such as names or personal records, was collected or disclosed. All data were analyzed and reported in aggregate form to preserve anonymity. Only the researchers had access to the raw data, which were securely stored and protected from unauthorized access. These data will be disposed of two years after the final approval of this study. All collected data were used solely for academic purposes, specifically to assess the current implementation of TESDA-API's diploma programs and to support the formulation of a recommended curriculum harmonization plan.

3.0 Results and Discussion

3.1 Profile of the Respondents

Socio-demographic Profile of the Students and Alumni

The socio-demographic profile of the students and alumni of TESDA-API's diploma programs, as shown in Table 1, reveals a young but economically challenged population. The average age of current students is 22.35 years, while that of alumni is 27.17 years. Most students (50.0 percent) fall within the 21- to 25-year-old age bracket, and a sizable portion of alumni (60.0 percent) also fall within the same range. The majority (over 94 percent) of both groups are single.

Males comprise the majority of the student population (78.8 percent). In contrast, females represent the majority of alumni (68.6 percent), which can be attributed to the fact that many alumni are graduates of the DHM program, a field that females traditionally dominate. The majority reside in rural barangays (over 88 percent), and economically, both students and alumni predominantly come from low-income families, with an average monthly income of ₱18,200 or less. Parental education levels are generally low, with most having attained only a high school education or below, indicating limited intergenerational access to higher education. These findings suggest the need for context-based interventions that address financial hardship, enhance student retention, and create pathways for upward mobility through aligned employment or continuing education opportunities, not only for current TESDA-API students but also for its alumni.

Table 1. *Distribution of the diploma program students and alumni in terms of their socio-demographic profile*

Variables	Students		Alumni	
	Freq. (n=66)	Percentage	Freq. (n=35)	Percentage
Age (in years)				
20 or below	24	36.40	0	-
21 to 25	33	50.00	21	60.00
26 to 30	7	10.60	8	22.90
31 or above	2	3.00	6	17.10
mean±sd	22.35 ± 4.18		27.17 ± 7.37	
Sex				
Male	52	78.80	11	31.40
Female	14	21.20	24	68.60
Civil status				
Single	64	97.00	33	94.30
Married	2	3.00	2	5.70
Monthly family income (in Php)				
9,100 or below	28	42.40	18	51.40
9,101 to 18,200	28	42.40	13	37.10
18,201 to 36,400	10	15.20	2	5.70
36,401 or above	0	0.00	2	5.70
mean±sd	Php11,858.15 ± 7754.5		Php11,256.14 ± 9241.6	
Address				
Barrio/Rural Barangay	61	92.40	31	88.60
Poblacion/Town Proper	5	7.60	4	11.40
Father's education				
Elementary level	11	16.70	8	22.90
Elementary graduate	13	19.70	4	11.40
High school level	13	19.70	6	17.10
High school graduate	17	25.80	8	22.90
Vocational/TESDA course graduate	0	-	2	5.70
College level	4	6.10	5	14.30
College graduate	8	12.10	2	5.70
Mother's education				
Elementary level	5	7.60	4	11.40
Elementary graduate	8	12.10	4	11.40
High school level	16	24.20	12	34.30
High school graduate	18	27.30	7	20.00
Vocational/TESDA course graduate	2	3.00	0	-
College level	11	16.70	5	14.30
College graduate	6	9.10	3	8.60

Academic Profile of the Students and Alumni

The academic profile of TESDA-API's students and alumni is presented in Table 2. The findings show a strong preference for the DEET program among current students (54.5 percent), while the majority of alumni (65.7 percent) are graduates of the DHM program. A significant number of current students are second-year enrollees, most of whom entered the program directly after completing senior high school. In contrast, alumni had more diverse entry credentials, including TESDA certification completers (34.3%) and college dropouts (17.1%).

Both groups had generally satisfactory high school academic performance, with average GWAs of 86.29 and 87.22, respectively. A greater proportion of alumni leaned toward receiving academic awards compared to their student counterparts. However, a larger number of them were also non-awardees, unlike the students, of whom only 28.8 percent did not receive any awards. This finding implies that while the students may not be highly inclined toward academics, they excel in other co-curricular activities such as leadership, journalism, and sports.

Furthermore, prior employment experience was limited, with 75.8 percent of students having none, and only 31.4 percent of alumni reporting long-term work experience. Notably, only 34.3 percent of alumni indicated having employment aligned with their diploma training, implying gaps in direct job matching after graduation. Limited learning resources were also observed among the respondents, with mobile phones being the most commonly available device; however, only about a quarter of them owned relevant tools that they could use during their studies.

Table 2. *Distribution of the diploma program students and alumni in terms of their academic profile*

Variables	Students		Alumni	
	Freq. (n=66)	Percentage	Freq. (n=35)	Percentage
Diploma program enrolled/graduated				
Hospitality Management	15	22.70	23	65.70
Civil Engineering Technology	15	22.70	12	34.30
Electrical Engineering Technology	36	54.50	0	-
Year level				
1 st year	24	36.40	-	-
2 nd year	42	63.60	-	-
Graduate	-	-	35	100.00
Entry credentials				
Senior high school graduate	50	75.80	15	42.90
TESDA Competency completer	4	6.10	12	34.30
ALS graduate	1	1.50	0	-
College dropout	11	16.70	6	17.10
College graduate	0	-	2	5.70
High school GWA				
79.99 or below (Poor)	0	-	1	2.90
80.00 to 84.99 (Fair)	24	36.40	8	22.90
85 to 89.99 (Satisfactory)	33	50.00	17	48.60
90 or above (Very satisfactory)	9	13.60	9	25.70
mean±sd	86.29 ± 3.25 (Satisfactory)		87.22 ± 3.76(Satisfactory)	
Employment experience before enrolment				
None	50	75.80	19	54.30
Short-term only (0 to 6 months)	8	12.10	5	14.30
Long term (more than 6 months)	8	12.10	11	31.40
Employment relevance				
No experience	50	75.80	19	54.30
No	13	19.70	4	11.40
Yes	3	4.50	12	34.30
Awards received during high school (multiple response set)				
Academic	19	28.80	19	54.30
Sports/Athletic award	17	25.80	10	28.60
Leadership award	4	6.10	5	14.30
Socio-cultural/ Arts award	4	6.10	4	11.40
Others	11	16.70	2	5.70
None	19	28.80	16	45.70
Learning resources owned during study in diploma (multiple response set)				
Computer	6	9.10	12	34.30
Mobile phone	57	86.40	30	85.70
Internet connectivity	11	16.70	12	34.30
Mobile data internet subscription	26	39.40	20	57.10
Books/manuals	5	7.60	17	48.60
Journals/magazines	1	1.50	7	20.00
Tools/equipment	19	28.80	9	25.70
None	2	3.00	0	-

Profile of the Teachers

As evident in Table 3, the faculty members handling the diploma programs at TESDA-API present a generally balanced profile in terms of age and sex. With a mean age of 41.33 years, there is also an equal representation of males and females. Most of them are in the early to mid-stage of their careers, with 50 percent holding the rank of Instructor. Only a small proportion reaches the Associate Professor rank, which, based on informal interviews with them, can be attributed to the deferred implementation of NBC 461 cycles in TESDA. They only relied on natural vacancies for promotion.

Educational attainment varies, with a combined 50 percent either holding or pursuing graduate and postgraduate degrees. The mean length of service is 13.11 years, with the majority having prior private sector experience, and 66.7 percent reporting that their work experience is relevant to the competencies they teach. These findings imply that the current faculty cohort is stable and grounded in industry practice – an essential attribute in a competency-based, technical-vocational education setting. However, the relatively small number of faculty with completed

master's and doctorate degrees, as well as the limited number of higher-ranking positions, may hinder curriculum progression, academic leadership, and vertical alignment with post-diploma pathways.

Table 3. Status of the diploma programs in TESDA-API along faculty development

Variables	Frequency (n=18)	Percentage
Age (in years)		
30 or below	3	16.70
31 to 40	8	44.40
41 to 50	2	11.10
51 or above	5	27.80
Mean = 41.33 years old ; SD = 12.28		
Sex		
Male	9	50.00
Female	9	50.00
Educational attainment		
Bachelor's degree graduate	5	27.80
With units in a Masteral program	4	22.20
Master's degree graduate	2	11.10
With units in a Doctorate program	5	27.80
Doctorate degree graduate	2	11.10
Faculty rank		
Instructor	9	50.00
Assistant Professor	7	38.90
Associate Professor	2	11.10
Length of service		
5 or below	5	27.80
6 to 10	8	44.40
11 or above	5	27.80
Mean = 13.11 years; SD = 12.79		
Work experience		
None	1	5.60
Private	12	66.70
Government	5	27.80
Work relevance		
No experience	1	5.60
Not relevant	5	27.80
Relevant	12	66.70

3.2 Level of Implementation of the Different Diploma Programs of TESDA-API

Program Outcomes

The level of implementation of the diploma programs in TESDA-API, along with their corresponding program outcomes, is presented in Table 4. Respondents generally rated this dimension as high (4.42), suggesting that the programs effectively deliver their educational vision and mission. The strongest aspect is the alignment of the diploma programs with national and industry standards (4.58), indicating that TESDA-API prioritizes producing industry-ready graduates with relevant competencies. However, the area of regular consultation with stakeholders (4.14), although still favorable, suggests room for improvement in fostering collaborative feedback mechanisms.

Table 4. Weighted means and level of implementation of the different diploma programs of TESDA-API along its program outcomes

Indicators	Mean	Interpretation
1. The diploma program develops students' competencies aligned with national and industry standards.	4.58	Very high
2. Graduates of the program are adequately prepared to meet the demands of their chosen career paths.	4.37	High
3. The program outcomes reflect the skills, knowledge, and attitudes necessary for lifelong learning.	4.51	Very high
4. Stakeholders (students, faculty, and employers) are regularly consulted to ensure program outcomes remain relevant.	4.14	High
5. The program outcomes are clearly communicated to students at the beginning of their courses.	4.48	High
Dimension Mean	4.42	High

Strengthening stakeholder engagement may enhance the responsiveness and adaptability of program outcomes to evolving industry demands. This finding is supported by the result under linkages, which shows that only localized partners are currently involved in the programs; thus, there is a need to establish partnerships with broader or higher-level stakeholders. As the ILO (2018) warned, without the simultaneous development of

technical and employability skills, graduates risk experiencing the consequences of policy and program misalignment, particularly in the form of skills mismatches that negatively impact both graduates and stakeholders.

Curriculum Content

Table 5 shows that the curriculum content of the TESDA-API diploma programs is generally rated as highly implemented, with a dimension mean of 4.37. This indicates strong curriculum planning and delivery, particularly in the alignment with technical and soft skills demanded by employers (4.54) and the opportunity for skill enhancement through electives or specializations (4.45), which support student career development and individual interests. In fact, throughout the diploma program, a student may earn more than 10 national certificates.

Table 5. *Weighted means and level of implementation of the different diploma programs of TESDA-API along its curriculum content*

	Indicators	Mean	Interpretation
1.	The curriculum includes sufficient theoretical and practical components necessary for industry readiness.	4.43	High
2.	The subjects offered are logically sequenced to build foundational knowledge and advanced skills.	4.35	High
3.	The curriculum is periodically reviewed and updated to adapt to emerging trends and technologies.	4.08	High
4.	Elective courses or specializations within the curriculum provide opportunities for skill enhancement.	4.45	High
5.	The curriculum content reflects the technical and soft skills demanded by employers.	4.54	Very high
Dimension Mean		4.37	High

However, although still rated as high, the periodic review and update of the curriculum (4.08) received the lowest score within this dimension. This suggests a need for a more structured and frequent review mechanism to incorporate new technologies, respond to labor market demands, and adapt to evolving industry practices. According to the International Labour Organization (ILO, 2018), traditional diploma programs must revise their curricula to include emerging technologies in order to meet modern expectations. This includes developing specific curricula that emphasize competencies such as data analytics, cybersecurity, and artificial intelligence – skills that are increasingly relevant in the digital economy.

Instructional Delivery and Support

The level of implementation of instructional delivery and support in the TESDA-API diploma programs, as presented in Table 6, is rated high, with a dimension mean of 4.42. This indicates a commendable standard of teaching practices and student support mechanisms. A key strength is the consistent integration of hands-on activities, such as laboratory tasks and simulations (4.58), which underscores the institution's alignment with competency-based education and industry-relevant training. Additionally, the use of diverse teaching strategies (4.53) and the provision of constructive feedback from instructors (4.50) further affirm the learner-centered and outcomes-based approach adopted by the faculty.

Table 6. *Weighted means and level of implementation of the different diploma programs of TESDA-API along its instructional delivery and support*

	Indicators	Mean	Interpretation
1.	Faculty members utilize diverse teaching strategies to cater to different learning styles.	4.53	Very high
2.	Hands-on activities, such as laboratory tasks and simulations, are regularly integrated into instruction.	4.58	Very high
3.	Digital tools and resources are effectively used to enhance learning experiences.	4.31	High
4.	Students receive clear and constructive feedback on their performance from instructors.	4.50	Very high
5.	Faculty members attend regular professional development activities to improve instructional delivery.	4.18	High
Dimension Mean		4.42	High

On the other hand, faculty attendance in professional development activities (4.18) presents a potential area for improvement. Regular upskilling of instructors—such as participation in professional and industry-based conferences and training programs—is crucial to maintaining pedagogical excellence, adapting to technological advancements, and enriching the overall learning environment. Accordingly, diploma programs should also emphasize the development of soft skills such as communication, problem-solving, and teamwork, which are increasingly valued by employers (Pereira & Costa, 2019).

Support for Students

Table 7 presents the level of implementation of student support services of the diploma programs in TESDA-API. The very high provision of financial support or scholarships (4.63) is its strongest characteristic along this

dimension, including that of the very high availability of guidance and counseling services (4.55), which suggests that the institution effectively addresses economic barriers and guidance needs of the students that could hinder their retention and eventually their success. Conversely, the lowest-rated component is the implementation of peer mentoring or tutorial programs (4.22), which, although still high, suggests the need for enhancing structured peer support systems that could further improve academic performance and foster a culture of collaboration among students. Overall, the support to students' dimension is assessed as high (4.40), reflecting strong institutional commitment not only to the academic and career endeavors of its students but also to their welfare during their stay at the institution.

Table 7. *Weighted means and level of implementation of the different diploma programs of TESDA-API along its support to students*

Indicators	Mean	Interpretation
1. Guidance and counseling services are available to assist students with academic and personal concerns.	4.55	Very high
2. Financial support or scholarships are accessible to students in need.	4.63	Very high
3. The institution ensures that students have access to modern facilities and learning resources.	4.30	High
4. Peer mentoring or tutorial programs are available to help struggling students.	4.22	High
5. Mechanisms are in place to address grievances or concerns raised by students.	4.28	High
Dimension Mean	4.40	High

Internship Program

The internship program of the diploma programs is assessed to have a very high level of implementation (4.59) as divulged in Table 8. TESDA-API strategically places students in internship sites relevant to their field of study (4.73), thereby enhancing career readiness and ensuring practical skill development in appropriate industry contexts. Additionally, the provision of orientation or training prior to deployment (4.64) further equips students with the necessary expectations and professional decorum for the workplace. However, the regularity of feedback from internship supervisors (4.46) poses a slight concern.

Table 8. *Weighted means and level of implementation of the different diploma programs of TESDA-API along its internship program*

Indicators	Mean	Interpretation
1. Students are placed in internship sites that are aligned with their field of study.	4.73	Very high
2. The institution provides adequate support and guidance during the internship period.	4.56	Very high
3. Internship supervisors provide regular feedback to students on their performance.	4.46	High
4. The internship program helps students apply their theoretical knowledge in real-world settings.	4.58	Very high
5. Students receive orientation or training before starting their internship placements.	4.64	Very high
Dimension Mean	4.59	Very high

This finding suggests that while supervision exists, more structured and consistent mentor-student feedback mechanisms could be strengthened to maximize learning. Overall, these findings imply that there is a strong alignment between institutional support and real-world training experiences provided by the internship programs to diploma program students. An expanded industry immersion, on-the-job training, or work-based learning can significantly enhance this issue, as practical exposure and real-world engagement are essential in building job readiness, especially for technical and vocational education graduates (OECD, 2019).

Assessment and Evaluation

The assessment and evaluation dimension of the TESDA-API diploma programs reckons a very high level of implementation (4.64) as shown in Table 9. The institution demonstrates a strong commitment to fair, transparent, and effective student evaluation practices by ensuring the effectiveness of assessment methods in measuring knowledge, skills, and competencies (4.70) and utilizing diverse assessment tools (4.66) to gauge student performance across various learning outcomes. While all indicators rated very high, the lowest mean still belongs to the item on informing students about criteria and rubrics (4.56), suggesting an increase in transparency of the grading system for students.

Table 9. *Weighted means and level of implementation of the different diploma programs of TESDA-API along its assessment and evaluation*

Indicators	Mean	Interpretation
1. Assessment methods effectively measure students' knowledge, skills, and competencies.	4.70	Very high
2. Students are regularly informed about the criteria and rubrics used for assessments.	4.56	Very high
3. A variety of assessment tools (e.g., written exams, practical tests, projects) are used in the program.	4.66	Very high
4. Faculty members provide timely feedback on students' assessment results.	4.62	Very high
5. Assessment and evaluation processes are transparent and free from bias.	4.64	Very high
Dimension Mean	4.64	Very high

These results suggest that the diploma programs' evaluation practices are robust, credible, and learner-centered. However, continuously improving transparency and communication around assessment expectations can further enhance students' learning experience.

Credit Arrangements

The credit arrangement, as shown in Table 10, is highly implemented in TESDA-API diploma programs (4.41), indicating that the institution provides substantial mechanisms to support academic mobility and continuity in higher education. The dissemination of credit transfer and equivalency policies during enrollment (4.48) is also highly implemented, reflecting effective communication and student awareness about these opportunities. Recognition of prior learning experiences (4.47) also emerges as a strong area, which can be attributed to one of TESDA's practices, where they recognize the previous achievements and informal learning of students. The seamlessness of credit transfers to other institutions (4.31), while still rated high, poses a challenge to ensuring smoother transitions for students pursuing higher education.

Table 10. *Weighted means and level of implementation of the different diploma programs of TESDA-API along its credit arrangements*

Indicators	Mean	Interpretation
1. Credit transfer policies allow students to continue their studies in other institutions seamlessly.	4.31	High
2. The program recognizes prior learning experiences through equivalency arrangements.	4.47	High
3. Students are informed about credit transfer and equivalency policies during enrollment.	4.48	High
4. Articulation agreements with higher education institutions support further education opportunities.	4.41	High
5. Credit arrangements are aligned with national qualifications and standards.	4.39	High
Dimension Mean	4.41	High

Currently, TESDA-API does not have an existing memorandum of agreement/understanding that addresses the credit arrangement of the institution. Naziz (2019) proposes a model for collaboration to facilitate the transition of diploma graduates to universities, emphasizing the need for policy advocacy, joint programs for credit transfer, and the development of information, education, and communication materials.

Summary of Level of Implementation

Table 11 presents the overall level of implementation of the various diploma programs offered by TESDA-API. Among the components, assessment and evaluation stand out as the strongest aspects (4.64), followed by the internship program, which also received a very high rating (4.59). This highlights the effectiveness of real-world experiential learning opportunities and the assessment standards and mechanisms that are aligned with the programs enrolled by the students.

Table 11. *Summary of dimension means and overall level of implementation*

Dimensions	Dimension Mean	Descriptive Value
1. Program outcomes	4.42	High
2. Curriculum content	4.37	High
3. Instructional delivery and support	4.42	High
4. Support for students	4.40	High
5. Internship program	4.59	Very high
6. Assessment and evaluation	4.64	Very high
7. Credit arrangements	4.41	High
Overall Mean	4.46	High

In contrast, curriculum content recorded the lowest mean dimension (4.37), with a high level of implementation. This can be attributed to the lack of technology-driven facilities and equipment, as well as the inconsistent and non-supportive upskilling of faculty members. Additionally, stakeholder-recommended curriculum content from linkages and partner industries was also a factor. Overall, the standards for the different diploma programs of TESDA-API are highly implemented.

3.3 Challenges Encountered in the Implementation of the Different Diploma Programs

Table 12 illustrates the extent of challenges encountered by respondents in implementing the TESDA-API diploma programs. They experience several recurring challenges in implementing their academic training, although these are generally encountered only occasionally (3.05). Among the most notable issues is the difficulty in managing academic responsibilities alongside other obligations, such as part-time work or family duties (3.30). Another

pressing concern is the limited access to modern and industry-standard equipment (3.28) and outdated or inadequate learning materials (3.11), which compromise the effectiveness of hands-on learning and may hinder students from acquiring the competencies needed for workforce readiness. Academic support, such as tutoring or mentoring (3.19), is also another vital input in the system to address issues in preparation and remediation among the students.

Table 12. *Weighted means and challenges encountered by the respondents in the implementation of the diploma programs of TESDA-API*

Indicators		Mean	Interpretation
1.	Difficulty to manage academic workload along with other responsibilities (e.g., part-time jobs or family obligations)	3.30	Sometimes
2.	Limited access to modern and industry-standard equipment for my hands-on training	3.28	Sometimes
3.	Lack of academic support, such as tutoring or mentoring, needed to succeed in the program	3.19	Sometimes
4.	Inconvenient scheduling of classes, leaving insufficient time for preparation and study	3.19	Sometimes
5.	Outdated or inadequate learning materials (e.g., textbooks, modules)	3.11	Sometimes
6.	Limited opportunities for industry immersion or on-the-job training (e.g., internships)	3.10	Sometimes
7.	Facilities, such as laboratories or workshops, are not conducive to effective technical training	3.08	Sometimes
8.	The diploma program does not adequately prepare me for my desired career path	3.04	Sometimes
9.	Little to no guidance on acquiring technical certifications or licenses relevant to my field	2.99	Sometimes
10.	Curriculum is not well-aligned with current industry needs and trends	2.99	Sometimes
11.	Lacks adequate initiatives to encourage active learning and student engagement (e.g., group projects, hands-on activities)	2.97	Sometimes
12.	Repeating or gaps in the curriculum that make some courses feel irrelevant	2.91	Sometimes
13.	Unmotivated to participate in practical activities or improve technical skills	2.87	Sometimes
14.	Poor instructional methods or lack of clarity in teaching	2.86	Sometimes
15.	Lack of communication on how each subject contributes to my overall skills and knowledge for my field	2.85	Sometimes
Overall Mean		3.05	Sometimes

These findings can be attributed to the fact that the students may have miscalculated the nature of TVET as self-paced and competency-based; however, this only applies to short-term courses, such as those competencies/qualifications leading to the National Certificates. The diploma programs, in addition to focusing on practical skill development, also emphasize academic proficiency and general education. This is similar to the Swiss model of vocational education system, which indicates that professional education programs often combine occupation-specific training with general knowledge, including advanced communication and analytical skills. This integration prepares students for a range of post-diploma opportunities, including further studies and professional certifications. On the other hand, one of the least frequently experienced challenges is the lack of clarity in instructional delivery (2.86), suggesting that while teaching quality may occasionally fall short due to the students' slightly inferior academic background, it is not a primary source of difficulty for most students.

3.4 Differences in the Assessment of the Respondents by Profile

On the Level of Implementation of the Diploma Programs

Table 13 presents the comparison test results in the level of implementation of the diploma programs of TESDA-API.

Table 13. *Comparison test results in the level of implementation of the diploma programs*

Grouping Variables	Statistics	p-value	Interpretation
Level of implementation of the diploma programs			
Respondent group	15.161	.000	Significant
Age	1.914	.132	Not significant
Sex	.439	.509	Not significant
Civil status	.135	.874	Not significant
Monthly family income	.208	.933	Not significant
Address	1.431	.235	Not significant
Father's education	1.556	.158	Not significant
Mother's education	1.506	.185	Not significant
Diploma enrolled/graduates	4.758	.011	Significant
Year level	.955	.388	Not significant
Entry credentials	1.712	.154	Not significant
High school GWA	.683	.564	Not significant
Employment experience before enrolment	1.946	.148	Not significant
Employment relevance	2.616	.078	Not significant
Awards received during high school	2.132	.147	Not significant
Learning resources owned	1.636	.204	Not significant

Respondent groups and diploma enrolled/graduated emerged as contrasting factors in the perception of the respondents as reckoned by the F-values of 15.161 ($p < .001$) and 4.758 ($p = .011$) respectively. Post-hoc analysis of data shows that the students and alumni have significantly better perception towards the implementation of the diploma programs than the faculty members. Students and alumni are those who directly benefit from the support, delivery and training embedded in the programs which leads them to view the experience more positively while the faculty members who are more involved in the operational and institutional aspects such as resource constraints, administrative challenges, or curriculum alignment may have a more critical perspective. Institutional stakeholders often differ in their evaluations of educational quality due to their varied roles and expectations (Flores, 2019).

The DEET and DHM students/alumni possesses better perspective towards their programs than the DCET students/alumni. This result may reflect differences in the perceived relevance, delivery quality, and resource adequacy across these programs. For instance, DEET and DHM are better equipped in terms of facilities, industry linkages or faculty specialization since its operations are already in place along short-term offering such as those leading to National Certificates, hence, expanding these into diploma programs did not posit much challenge. On the other hand, DCET face developmental gaps in infrastructure or program delivery especially that civil engineering has a broader scope and requires better academic inclination than practical skills only. Cabrerros and Barbacena (2024) suggest that in case of discrepancies in the quality of services of the different sectors in an organization, strengthening collaboration with stakeholders and implementing streamlined management framework aligned with national and international standards is a crucial intervention.

On the Challenges Encountered in the Implementation of the Diploma Programs

Table 14 presents the comparison test results on the challenges encountered by the respondents. Five variables showed significant differences in the extent of challenges experienced. When grouped according to respondent category, an F-value of 10.14 ($p < .001$) was observed. Post-hoc analysis suggests that alumni and faculty members experienced a greater extent of challenges compared to students. This may be attributed to the internal perspectives of faculty members and the fact that alumni, being part of the pioneer batch, may have perceived their experiences as experimental or trial-based. Age ($F = 4.49$; $p = .005$) reveals a trend where older respondents perceived a higher extent of challenges than their younger counterparts. This may stem from cognitive deloading due to prolonged periods away from formal education. Many older students reentering academia after years of academic dormancy may face reduced cognitive flexibility and working memory performance, which can make it more challenging to meet the academic and technical demands of the program.

Table 14. Comparison test results in the challenges encountered in the diploma programs

Grouping Variables	Statistics	p-value	Interpretation
Challenges encountered			
Respondent group	10.14	< .001	Significant
Age	4.49	.005	Significant
Sex	0.64	.426	Not significant
Civil status	0.94	.395	Not significant
Monthly family income	2.56	.043	Significant
Address	0.10	.756	Not significant
Father's education	0.72	.652	Not significant
Mother's education	2.86	.013	Significant
Diploma enrolled/graduates	4.47	.014	Significant
Year level	17.95	< .001	Significant
Entry credentials	0.88	.480	Not significant
High school GWA	2.55	.061	Not significant
Employment experience before enrolment	0.47	.628	Not significant
Employment relevance	2.70	.072	Not significant
Awards received during high school	0.00	.993	Not significant
Learning resources owned	0.84	.361	Not significant

Students and alumni from lower-income families often struggle with limited access to academic resources, unstable internet connectivity, unconducive learning environments at home, or the need to work part-time or full-time. These factors hinder their ability to fully participate in internships, purchase necessary materials, or afford transportation to training venues. However, the diploma program offers full scholarship assistance, including a

daily living allowance of ₱160. As a result, monthly income presents only a slight difference in the extent of challenges encountered, as indicated by the F-value of 2.56 ($p = .043$).

Mother's educational attainment, with an F-value of 2.86 ($p = .013$), revealed that higher extents of challenges were reported at both ends of the educational spectrum – that is, when the mother had either low (elementary) or high (college) education. This may be due to the mother's inability to assist with schoolwork in the former case or a lack of time due to employment in the latter. For diploma programs enrolled or graduated from ($F = 4.47$; $p = .014$), students and alumni of DHM and DCET experienced a higher extent of challenges compared to their DEET counterparts. This aligns with earlier findings, as DEET has already established operations, including facilities, equipment, and faculty qualifications.

4.0 Conclusion

The diploma programs at TESDA-Aparri Polytechnic Institute (TESDA-API) demonstrated a generally high level of implementation, with notable strengths in areas such as assessment practices and internship facilitation, implying that the DEET, DHM, and DCET programs are all aligned with TESDA training regulations. This does not, however, reflect an optimal implementation of the programs, as issues such as deteriorating laboratory facilities and incomplete e-learning platforms remain pressing concerns. To transition from mere compliance to a culture of quality enhancement, TESDA-API must prioritize the modernization of training facilities, the expansion of digital learning platforms, and the consistent upskilling of faculty. Faculty members should be encouraged and supported to pursue continuing professional development, particularly in advanced education, long-term industry immersion, and training on emerging technologies such as AutoCAD, digital electrical systems, and hospitality management software. Strengthening student mentorship programs and fostering collaborative learning environments will enhance graduates' preparedness for licensure exams, employment, or further education, ultimately improving post-diploma opportunity readiness and curriculum delivery.

Moreover, while the current scholarship support includes daily allowances, there is a need to enrich these programs by introducing performance-based incentives and financial aid for licensure examinations. This may help bridge motivation and equity gaps, especially for high-performing and financially challenged students. Targeted support schemes recognizing leadership and academic excellence can further promote retention and long-term student success. Given the diverse socioeconomic profiles of TESDA-API students and alumni, institutional interventions must be tailored to address both access and outcomes. Future research should explore longitudinal data on graduates' exit points, such as employment rates, licensure acquisition, entrepreneurial ventures, and transitions to higher education. Comparative studies with other TESDA institutions across regions could also surface replicable best practices that contribute to a more harmonized and responsive diploma-to-post-diploma framework.

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Sole authorship.

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The researcher declares that there are no potential conflicts of interest with respect to the research, authorship, or publication of this study.

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