

FACTORS RELATED TO THE ATTRITION RATE OF TRAINEES IN SAMAR NATIONAL SCHOOL OF ARTS AND TRADES (SNSAT), PHILIPPINES

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Abstract – Technical Vocational Education and Training (TVET) programs play a crucial role in developing industry-relevant competencies; however, their effectiveness is challenged by persistent trainee attrition. This study examined the factors influencing the dropout rates in the technical and skills development courses offered by SNSAT from 2022 to 2024. This study used a descriptive-correlational research design; data were collected from 50 former trainees selected through purposive sampling and analyzed using descriptive statistics and Spearman's rank correlation coefficient. Descriptive findings showed that among external factors, poverty, transportation difficulties, and family responsibilities were frequently cited by trainees as reasons for withdrawal. Institutional factors, including limited teacher encouragement, insufficient academic guidance, and weak monitoring mechanisms, were commonly reported. Correlational analysis revealed that, while poverty was the most frequently cited external factor, it did not show a statistically significant relationship with dropout rates. In contrast, teacher support demonstrated a significant negative relationship with trainee attrition, indicating that stronger instructional and psychosocial support is associated with higher trainee retention. These findings highlight that trainee withdrawal is a multifaceted issue shaped by both contextual constraints and institutional practices, with teacher support playing a critical role. Based on the results, SNSAT recommends strengthening teacher-training initiatives focused on learner-centered engagement and structured mentoring as a potential strategy to enhance trainee persistence. Additionally, expanding and streamlining financial assistance mechanisms may help reduce access-related barriers and support sustained participation in TVET programs.

Keywords: *attrition rate; TESDA; external factors; institutional support; vocational education*

I. Background of the Study

With the growing demand for a competitive and skilled labor force, Technical and Vocational Education and Training (TVET) institutions have become indispensable to national development strategies, particularly in developing countries such as the Philippines. TVET programs are designed to equip learners with industry-relevant, practical skills that address labor market mismatches and promote inclusive economic growth. In the Philippine context, these programs are administered by the Technical Education and Skills Development Authority (TESDA) through its accredited institutions, including the Samar National School of Arts and Trades (SNSAT). Despite TVET's strategic role in enhancing employability and socio-economic mobility, high trainee attrition remains a persistent challenge that threatens program effectiveness and sustainability.

Globally, TVET is widely recognized as a catalyst for economic development and social inclusion, contributing directly to achieving the United Nations Sustainable Development Goals (SDGs), particularly SDG 4 (Quality Education)

and SDG 8 (Decent Work and Economic Growth). UNESCO-UNEVOC (2023) reports that dropout rates in TVET programs across developing countries range from 15% to 25%, significantly undermining workforce preparedness and national productivity. Similarly, the International Labor Organization (ILO, 2022) emphasizes that sustained attrition in vocational training programs disrupts individual career pathways and diminishes the return on public and private investments in skills development. More recent analyses further suggest that post-pandemic economic pressures have intensified dropout risks, especially among learners from low-income households (OECD, 2023; World Bank, 2024).

Attrition in technical-vocational education refers to the premature withdrawal of trainees before completing their training program. This phenomenon negatively affects learners, institutions, and the broader labor market. UNESCO-UNEVOC (2024) states that high dropout rates impede progress toward inclusive and equitable education systems. High attrition also weakens the national capacity for skills formation. At the institutional level, attrition results in wasted resources, underutilized

training slots, and declining public confidence in TVET systems. At SNSAT, institutional records reveal a sharp increase in attrition. It rose from 4.35% in 2022 to 16.85% in 2023, then declined slightly to 13.11% in 2024. These figures raise serious concerns regarding learner retention and institutional effectiveness.

Existing international literature identifies poverty, family responsibilities, transportation constraints, and limited institutional support as key determinants of TVET dropout (Balasingham, 2021; Wang & Yang, 2024; Kintu & Ssesanga, 2023). However, much of this evidence originates from foreign contexts, limiting its applicability to the Philippine setting, where structural inequalities, geographic isolation, and uneven policy implementation shape educational participation. In the Philippines, empirical research specifically examining attrition within TESDA-accredited programs remains limited. National data from the Philippine Statistics Authority (PSA, 2024) indicate that completion rates in several TESDA programs fall below 80%, with higher dropout rates observed in rural and economically disadvantaged regions; however, these

figures are rarely disaggregated to examine causal factors.

Given this gap, the present study examined external and institutional factors influencing trainee attrition in SNSAT's technical and skills training programs. External factors considered include poverty, employment obligations, and family-related stressors, while institutional variables encompass instructional quality, teacher support, guidance services, distance to training centers, and program placement. By empirically analyzing the relationships between these factors and dropout rates, this study aims to generate locally grounded evidence that can inform targeted interventions.

Despite the acknowledged importance of TVET in national development, there remains a scarcity of Philippine-based, institution-level studies that systematically examine why trainees discontinue TESDA programs. This research addresses that gap by providing context-specific insights into attrition at SNSAT. It contributes to policy formulation, institutional improvement, and the broader goals of educational equity, workforce

development, and sustainable economic growth.

II. Statement of the Problem

This study aimed to identify the underlying factors contributing to attrition among TESDA trainees. Specifically, it sought to answer:

1. What are the factors related to the attrition of trainees in the technical and skills development programs of SNSAT?
2. What is the attrition rate of trainees in SNSAT over the past three academic years?
3. Is there a significant relationship between these factors and the attrition rate?

III. Methodology

3.1 Research Design

This descriptive-correlational study examined how selected external and institutional factors relate to trainee attrition in the technical and skills development programs of the Samar National School of Arts and Trades (SNSAT). The descriptive component outlined the demographic characteristics, socio-economic

conditions, and institutional experiences of former TESDA trainees, providing a clear picture of the circumstances surrounding their withdrawal. Meanwhile, the correlational component assessed whether these external factors (e.g., poverty, parental inability to pay, family-related issues) and institutional factors (e.g., teacher encouragement, guidance services, adequacy of facilities) demonstrated statistically significant associations with the likelihood of dropping out.

This design was appropriate because the study aimed to identify patterns and relationships among naturally occurring variables without manipulating the research environment. As noted by Loob et al. (2022), descriptive-correlational designs are well-suited for examining real-world educational conditions, establishing empirical trends, and generating evidence that can guide policy and intervention efforts.

3.2 Sampling Technique and Sample Size

The study used a non-probability, purposive (criterion) sampling method to select participants who had directly

experienced dropping out of TESDA-accredited programs at the Samar National School of Arts and Trades (SNSAT). Purposive sampling is suitable for studies that aim to collect in-depth, context-specific information rather than broad statistical generalization (Etikan, 2024; Palinkas et al., 2023). It is used in an increasing number of quantitative and mixed-methods studies when information-rich cases are needed (Guetterman, 2023).

The study sample was composed of 50 ex-trainees who fulfilled the following inclusion criteria: (a) 18 years of age, (b) completed an SNSAT technical-vocational program, and (c) dropped out of school by 2024. Even though it was conducted on a non-probability basis, the sample reflected the key demographic and experiential characteristics of SNSAT attrition rates documented in the study records and thus sufficiently represented the dropout population at the time of the study (Campbell et al., 2023).

The information-power model further strengthened the adequacy of the sample because it is justified as smaller when the aim of the study is narrow, the participants are particular, and the analytical strategy is well-established

(Vasileiou et al., 2023). Although the results cannot be statistically generalized beyond SNSAT, the credibility and contextual transferability of the findings gave greater weight to the transparent selection procedures and their correspondence with institutional records (OPRE, 2022).

3.3 Research Instrument

The structured survey questionnaire was used in data collection, and subsequently, based on A Study of Student Dropout at Some Selected TVET Colleges in Addis Ababa. The original instrument's framework was retained to maintain its established validity and reliability, and contextual modifications were implemented to align the items with TESDA training programs in the Philippine context. The instrument consisted of two major parts: external and institutional factors that affect trainee dropout.

In a bid to establish content and face validity, the instrument was validated by a three-member expert panel comprising two TVET instructors and one educational measurement expert, in line with the proposed validation practices (Taherdoost, 2022).

Reformulations focused on clarity, relevance, and cultural appropriateness. The advanced version was later approved by the research adviser.

Reliability was tested using a pilot study with ten ($n = 10$) non-target respondents who had the same characteristics as the study participants. The alpha coefficients for Cronbach's alpha were good, with the External Factors subscale (0.87) and the Institutional Factors subscale (0.82) exceeding the accepted value of 0.70 (Hair et al., 2023). Minor changes were made before final administration.

3.4 Data Analysis

A methodical coding and analysis of data through descriptive and inferential statistics were applied to the data in the structured questionnaires. The respondents' perceptions of external and institutional factors contributing to dropout were summarized using descriptive statistics, including means and standard deviations. The ranking of means was used to pick the most salient factors, and the standard deviations expressed the variability of the responses.

Spearman's rank-order correlation coefficient was used to test relationships between the identified factors and trainee attrition. The application of this nonparametric test was logical because the data were ordinal, and some of the variables' assumptions were violated (Stevens, 2020). The descriptive and correlational analysis, used together, gave me a detailed picture of the prevalence and impact of factors related to dropouts.

3.5 Ethical Considerations

This study adhered to the ethical principles governing research involving human subjects. The Graduate School Ethics Review Committee granted ethical clearance, and the SNSAT administration received formal permission. The informal consent form was provided to participants in writing, outlining the purpose, procedures, risks, and benefits of the study. The process was voluntary, and respondents were free to quit without being punished. Coded identifiers, the physical and electronic data were stored securely, and the reports did not contain any personally identifiable information. Any data could only be used for academic purposes, and any

data was disposed of in line with the institution's data retention policies.

The research followed the ethical principles of respect for persons, beneficence, and justice outlined in the Belmont Report and the Data Privacy Act of 2012 (Republic Act No. 10173) to ensure the lawful and secure handling of personal data.

IV. Results and Discussion

2.1 Results

This section presents and interprets the major findings of the study based on responses from 50 former TESDA trainees of the Samar National School of Arts and Trades (SNSAT). Descriptive statistics were used to identify the relative influence of external and institutional factors on trainee dropout, while Spearman's rank-order correlation examined their statistical association with attrition rates.

Table 1 shows that poverty is perceived as the most influential external factor affecting students, reflected by its very high mean of 4.26 (SD = 0.80). This strongly indicates that financial

hardship remains the most pressing barrier to students' educational engagement—an observation that aligns with national findings identifying poverty and hunger as persistent drivers of school dropout in the Philippines (Philippine Institute for Development Studies [PIDS], 2023).

The next group of factors—student involvement in income-generating tasks (M = 3.02, SD = 0.98), parental inability to afford education (M = 2.94, SD = 1.13), family breakdown (M = 2.88, SD = 1.17), excessive family work (M = 2.82, SD = 1.10), parents' level of education (M = 2.80, SD = 1.07), and lack of employment opportunities (M = 2.76, SD = 1.12)—form a cluster of moderately rated influences. These findings are consistent with regional evidence that poverty often pushes children into labor, thereby reducing time for schooling, and that family instability and limited parental education further weaken academic support systems (Eastern Visayas State University, 2022).

This pattern also aligns with local qualitative research, which found that Filipino youths who dropped out commonly cited financial problems, household duties, and family conflict as

major contributors to disengagement from school (Alvarez & Abad, 2021). Meanwhile, peer influence received a lower, moderate rating ($M = 2.60$, $SD = 1.01$), suggesting that while social relationships play a role in student behavior, their impact may not be as substantial as that of economic and familial pressures. This corresponds with international research indicating that socioeconomic disadvantage and parental characteristics outweigh peer effects in predicting academic outcomes (Szekely et al., 2023). The lowest-rated factors—early pregnancy ($M = 2.08$, $SD = 1.35$) and marriage ($M = 1.98$, $SD = 1.22$)—were categorized as having low influence. Although these factors were not widely perceived as predominant in this sample, national

and international studies consistently highlight early pregnancy as a major trigger for school discontinuation among adolescent girls (PIDS, 2025). Thus, the low means likely reflect their lower prevalence in the broader respondent population rather than a minimal impact on those who experience them.

Overall, the external factors yielded a mean of 2.81 ($SD = 1.10$), indicating a moderate level of influence, with a clear trend showing that structural economic disadvantages constitute the most significant challenges, while socially driven life events affect fewer students but remain high-impact for specific subsets.

Table 1. Mean Ratings of External Factors Influencing Attrition

| External Factor | Mean | SD | Verbal Interpretation |
|------------------------------------------------|-------------|-------------|-----------------------|
| Poverty | 4.26 | 0.80 | Very High |
| Student involvement in income-generating tasks | 3.02 | 0.98 | Moderate |
| Parental inability to afford education | 2.94 | 1.13 | Moderate |
| Family breakdown | 2.88 | 1.17 | Moderate |
| Excessive involvement in family work | 2.82 | 1.10 | Moderate |
| Parents' education level | 2.80 | 1.07 | Moderate |
| Lack of employment opportunities | 2.76 | 1.12 | Moderate |
| Peer group influence | 2.60 | 1.01 | Moderate |
| Early pregnancy | 2.08 | 1.35 | Low |
| Marriage | 1.98 | 1.22 | Low |
| Overall Mean | 2.81 | 1.10 | Moderate |

Table 2 The institutional data show that traveling long distances from home to college is perceived as the most significant institutional barrier (mean = 3.38, SD = 1.40), underscoring that physical access remains a critical challenge for many students. Long commutes — especially in remote or underserved localities — have been documented by education-advocacy organizations in the Philippines as a major deterrent to attendance, with transportation difficulties, cost, and time loss contributing to dropout or irregular attendance (ChildHope Philippines, 2025; Tiyara, Inc., 2025). The next most salient institutional concern is selection and placement problems (mean = 2.66, SD = 1.33), suggesting that mismatches between students' background or preparedness and their assigned courses or programmes may discourage persistence or success. This echoes findings in local case studies that describe institutional misalignment (for example, poor course–student fit) as a recurring reason for school discontinuation even when tuition is subsidized (RichestPH, 2024).

In contrast, most other institutional factors — such as inadequate materials and facilities (M = 2.34, SD = 1.27),

curriculum irrelevance (M = 2.40, SD = 1.28), absenteeism (M = 2.40, SD = 1.25), low teacher-related variables (qualification: M = 2.30, SD = 1.27; teacher encouragement: M = 2.20, SD = 1.14; shortage of qualified teachers: M = 2.16, SD = 1.11), and lack of guidance and counseling (M = 2.26, SD = 1.26) — were rated only low by respondents. The overall institutional mean of 2.46 (SD = 1.26) thus lands in the “low” interpretation band. On the face of it, this suggests that respondents perceive institutional shortcomings (apart from access/distance and placement) as less immediately problematic in influencing their educational participation.

Despite the relatively low aggregate ratings, a wealth of evidence indicates that these “low-perceived” constraints still represent serious systemic problems across many Philippine schools. For instance, chronic classroom shortage, overcrowding, lack of textbooks or laboratory resources, and dilapidated facilities remain pervasive — especially in public schools and rural or marginalized areas (Philippine Institute for Development Studies [PIDS], 2025; TeacherPH, 2024). The shortage of qualified and well-supported teachers — frequently cited in policy and media reports —

continues to impair instructional quality and students' learning experiences nationwide (TeacherPH, 2024; Manila Bulletin, 2025). Moreover, lack of guidance, counseling, and individualized support has been linked elsewhere to student disengagement, poor performance, and eventual dropout (BicolMail, 2025).

Taken together, a pattern emerges: among institutional factors, access and placement issues (distance, selection/placement) are perceived by students as most immediately impactful on their participation, while resource-, infrastructure-, and personnel-related problems — although recognized, perhaps as more “background” or systemic — are downgraded in perceived urgency. This may reflect a normalization over time: students become accustomed to substandard facilities, large classes, and under-resourced schools, so these no longer register as urgent external barriers, even though they may steadily erode educational quality and retention.

In light of regional and global evidence, this suggests that efforts to improve student retention and participation

should first address geographic accessibility and fairness in enrollment and placement, particularly for students from remote or underserved areas. At the same time, long-term reforms must not neglect school infrastructure, learning resources, teacher training, and support services, as these underpin learning quality, equity, and students' capacity to persevere and succeed (PIDS, 2025; RichestPH, 2024; TeacherPH, 2024).

Finally, the low overall institutional mean implies that experiences are heterogeneous — some students may indeed come from well-resourced institutions and face few institutional barriers, while others remain deeply disadvantaged. Thus, policy responses should be context-sensitive and targeted, combining universal measures (e.g., infrastructure investment, teacher support) with focused interventions (e.g., transportation or satellite-campus solutions, fair placement mechanisms) to reach the most vulnerable learners.

Table 2. *Mean Ratings of Institutional Factors Influencing Attrition*

| Institutional Factor | Mean | SD | Verbal Interpretation |
|----------------------------------------------|-------------|-------------|-----------------------|
| Traveling long distances from home to school | 3.38 | 1.40 | Moderate |
| Selection and placement problems | 2.66 | 1.33 | Moderate |
| Inadequate materials and facilities | 2.34 | 1.27 | Low |
| Curriculum irrelevance | 2.40 | 1.28 | Low |
| Absenteeism | 2.40 | 1.25 | Low |
| Low teacher qualification | 2.30 | 1.27 | Low |
| Lack of guidance and counseling | 2.26 | 1.26 | Low |
| Lack of teacher encouragement | 2.20 | 1.14 | Low |
| Shortage of qualified teachers | 2.16 | 1.11 | Low |
| Overall Mean | 2.46 | 1.26 | Low |

Table 3 shows the attrition data from 2022 to 2024, indicating a fluctuating but generally increasing trend in student dropout over the three-year period. In 2022, of the 1,763 students enrolled, 1,688 graduated while 75 dropped out, resulting in a relatively low attrition rate of 4.35%. However, in 2023, the number of students enrolled increased to 1,943, yet 302 students dropped out, resulting in a substantial rise in the attrition rate to 16.85%. This sharp increase suggests that factors beyond mere enrollment size may have contributed to student dropout, such as heightened academic pressures, financial challenges, or institutional constraints. In 2024, attrition decreased slightly to 13.11%, with 228

students dropping out of 1,853 enrolled students. While this represents an improvement compared to 2023, the rate remained considerably higher than in 2022, indicating persistent challenges affecting student retention.

The pattern observed suggests that attrition is not solely dependent on enrollment numbers but is likely influenced by external, institutional, and individual factors that affect students' ability to continue their studies. The highest attrition rate in 2023 may reflect transitional challenges, such as program adjustments, economic difficulties, or changes in support services. Compared

with 2024, the decrease suggests that interventions or adaptations may have mitigated some dropout causes, though not fully restored retention to the 2022 level. These findings are consistent with regional studies in the Philippines, which indicate that dropout rates tend to rise when economic, family, and institutional pressures intensify and can fluctuate from year to year depending on policy, student support mechanisms, and social factors (Philippine Institute for

Development Studies [PIDS], 2023; Eastern Visayas State University, 2022).

Overall, the attrition data underscore the importance of targeted retention strategies that address both structural and individual barriers to student completion. Continuous monitoring and interventions are essential to prevent spikes in dropout and ensure students progress toward graduation in a timely manner.

Table 3. Attrition Rate from 2022 to 2024

| Year | Enrolled | Graduated | Dropped Out | Attrition Rate |
|------|----------|-----------|-------------|----------------|
| 2022 | 1,763 | 1,688 | 75 | 4.35% |
| 2023 | 1,943 | 1,641 | 302 | 16.85% |
| 2024 | 1,853 | 1,625 | 228 | 13.11% |

The Spearman’s correlation analysis of selected external factors and the attrition rate indicates that none of the examined variables show a statistically significant relationship with student dropout. Parental inability to pay showed the highest positive correlation with attrition ($\rho = 0.270$, $p = 0.0576$), suggesting a weak tendency for students from families struggling to cover educational costs to experience higher dropout rates. However, this association did not reach statistical significance at the conventional alpha

level of 0.05. Similarly, student involvement in income-generating tasks ($\rho = 0.190$, $p = 0.1966$) and poverty ($\rho = 0.160$, $p = 0.2770$) were positively correlated with attrition, but neither was significant. Family breakdown ($\rho = 0.116$, $p = 0.4303$) and peer group influence ($\rho = 0.026$, $p = 0.8552$) exhibited negligible correlations with attrition, indicating minimal direct influence on dropout in this sample. This finding suggests that external hardship alone does not directly predict dropout when

examined in isolation. Instead, these pressures may be mediated by other factors—such as institutional support, scholarships, or personal resilience—that buffer their impact. This aligns with Philippine evidence indicating that financial constraints are most consequential when combined with weak institutional or psychosocial support systems (PIDS, 2023).

Overall, the pattern suggests that while external economic and social pressures may, in principle, contribute to attrition, their measured association with actual dropout rates in this dataset is weak. These findings may reflect the presence of moderating or intervening factors, such as institutional support, scholarships, social networks, or personal resilience,

which buffer students from the direct effects of external challenges.

The results also suggest that interventions aimed at improving retention should not focus solely on mitigating external economic or social pressures in isolation, but should adopt a holistic approach that integrates financial assistance, family engagement, peer mentoring, and institutional support programs. Although these external factors were not statistically significant predictors in this analysis, their conceptual relevance remains important, especially for subgroups of students who may be more vulnerable to economic or familial challenges.

Table 4. *Spearman’s Correlation: External Factors and Attrition Rate*

| Factor | ρ (rho) | p-value | Interpretation |
|----------------------------|--------------|---------|-----------------|
| Parental inability to pay | 0.270 | 0.0576 | Not Significant |
| Student income involvement | 0.190 | 0.1966 | Not Significant |
| Poverty | 0.160 | 0.2770 | Not Significant |
| Family breakdown | 0.116 | 0.4303 | Not Significant |
| Peer group influence | 0.026 | 0.8552 | Not Significant |

The correlation analysis between institutional factors and the attrition rate shows that a lack of teacher encouragement was significantly

associated with student dropout ($p = 0.397$, $p = 0.0044$), indicating a moderate positive correlation. This finding underscores the critical role

that teacher support, motivation, and engagement play in retaining students. The result aligns with both local and international research, which consistently demonstrate that positive teacher–student relationships, encouragement, and mentorship reduce the likelihood of academic withdrawal (Bautista, 2021; Hughes & Chen, 2020). In the Philippine context, schools with proactive teacher support and engagement programs report higher retention rates, especially among students facing economic or social challenges (Eastern Visayas State University, 2022). Internationally, studies show that teacher encouragement and perceived care are strong predictors of student persistence and motivation (Wentzel, 2024).

Other institutional factors, namely guidance and counseling services ($p = 0.268$, $p = 0.0595$) and inadequate materials and facilities ($p = 0.269$, $p = 0.0586$), were positively correlated with attrition but did not reach statistical significance. While not significant in this analysis, previous studies suggest that access to guidance counseling and adequate learning resources can play an important role in supporting students at risk of dropping out. For instance, research in Philippine schools indicates that comprehensive guidance services help identify at-risk students and provide targeted interventions, which improve retention (Philippine Institute for Development Studies [PIDS], 2023). Globally, inadequate learning materials and facilities have been linked to poor academic outcomes and disengagement, particularly in under-resourced schools (UNESCO, 2020).

Table 5. *Spearman’s Correlation: Institutional Factors and Attrition Rate*

| Factor | ρ (rho) | p-value | Interpretation |
|----------------------------------|--------------|---------|-----------------|
| Lack of teacher encouragement | 0.397 | 0.0044 | Significant |
| Guidance and counseling services | 0.268 | 0.0595 | Not Significant |
| Inadequate materials/facilities | 0.269 | 0.0586 | Not Significant |

2.2 Discussion

The study's results indicate that economic difficulties remain the leading cause of student dropout in technical-vocational education. Poverty consistently emerges as the most influential external factor, as reflected in the high mean and verbal interpretation in the data. Financial constraints compel students to engage in income-generating activities, which reduce the time and energy available for academic pursuits. This finding aligns with the global research of Psacharopoulos and Patrinos (2020), who demonstrated that poverty is the primary driver of early school leaving in low- and middle-income countries, as students often prioritize work over education. Similarly, UNESCO-UNEVOC (2025) highlighted that rising socio-economic pressures in the Philippines between 2022 and 2023, including high inflation and unstable employment, led many students to withdraw from vocational programs to support their households. Lee and Cho (2020) also reported that economic disturbances in the broader environment push students to leave school prematurely to seek immediate employment, reinforcing the notion that financial

hardship is a persistent barrier to educational persistence.

The study further shows that family-related factors—including parental inability to afford education, family breakdown, and excessive household duties—moderately influence attrition. Specifically, students from unstable or disadvantaged households often face competing responsibilities that interfere with school participation. While supportive home environments enhance student retention, as found by Chen et al. (2021), the moderate effect of these family-related factors here suggests that direct financial pressures may be more immediately disruptive. Overall, the study highlights a nuanced interplay between household responsibilities and educational persistence.

Institutional factors received generally lower ratings, indicating that students perceive personal and financial challenges as more pressing than school-based constraints. Yet teacher encouragement emerged as a significant predictor of attrition, underscoring the importance of interpersonal support in educational settings. Students who lack emotional and motivational support from

teachers are more likely to leave their studies, consistent with findings by Sánchez Bardales et al. (2025), who emphasized that teacher encouragement fosters feelings of belonging and intrinsic motivation, which are essential for success in skill-based training. Similarly, Cornelius-White (2020) noted that positive teacher-student relationships promote engagement and academic achievement, underscoring the universal importance of relational support.

Although guidance and counseling services and adequacy of facilities were not statistically significant, their near-significant correlations suggest institutional interventions can complement financial support to reduce attrition. Philippine research supports this: studies show students benefit when schools provide counseling, logistical support, and access to resources, especially with financial assistance (PIDS, 2023; TeacherPH, 2024). Internationally, García and Weiss (2022) demonstrated that interventions combining economic aid with institutional improvements better promote retention than single strategies. Tinto (2022) emphasized that student motivation interacts with

institutional support, meaning dropout prevention requires addressing both individual and organizational factors.

Trends in attrition rates over the three-year period reflect these dynamics. The spike in 2023, with a 16.85% dropout rate, likely corresponds to intensified socio-economic pressures and transitional challenges, while the slight reduction in 2024 (13.11%) may indicate adaptations by students and institutions. Nevertheless, persistent moderate-to-high attrition rates highlight that financial difficulties, family responsibilities, and insufficient teacher support continue to affect student persistence, emphasizing the need for multifaceted interventions.

V. Conclusions

Based on the results, the following conclusions were drawn:

1. Trainees often identified poverty, limited resources, and family obligations as major challenges to their education. However, these factors did not significantly explain attrition patterns in the data. Only teacher encouragement was an institutional factor with a

statistically significant influence on trainee dropout. This shows that attrition at SNSAT is less about external deprivation and more about instructional support, motivation, and teacher–learner relationships. For educational managers, this highlights the key role of teacher leadership, mentoring, and engagement in retaining TVET students.

2. The increase in attrition rates over three years reflects weaknesses in institutional support and management. Socioeconomic pressures continue, but the consistency in trainees’ perceptions shows that dropout rates are systemic, not incidental. Educational managers need proactive retention management. This includes early warning systems, continuous learner monitoring, and support services that are built into program delivery.
3. Teacher encouragement—not socioeconomic status—significantly predicts attrition, challenging conventional retention approaches. Financial assistance matters, but

management should focus on human-centered strategies. These include teacher training, mentoring, learner motivation programs, and supportive classrooms. In TVET, where trainees rely on instructors for guidance and confidence, school leaders must promote learner-centered practices that help students persist and complete their programs.

VI. Recommendations

Based on the foregoing conclusions, the following were recommended.

1. It is recommended that SNSAT enhance teacher training programs by integrating inclusive teaching strategies, effective communication, and learner-centered engagement techniques, such as structured mentoring, regular academic check-ins, and mental health services, to help sustain trainee confidence, identify early signs of withdrawal, and provide timely interventions that reinforce persistence in technical-vocational programs.

2. SNSAT should strengthen its financial support system by expanding scholarship opportunities, introducing transportation allowances, and improving stipend management, ideally in partnership with LGUs, NGOs, and industry collaborators, to ensure broader and more sustainable assistance.
3. SNSAT should improve its program placement and counseling services by involving school counselors more actively in helping trainees and their families select programs that match their interests, skills, and career goals, thereby minimizing mismatches and dissatisfaction. Further, future research should include larger, more diverse populations observed over longer periods and incorporate psychological variables such as motivation, learning styles, self-efficacy, and mental health to develop more comprehensive, evidence-based retention strategies.

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