

ASSESSING THE IMPLEMENTATION OF THE TECHNICAL-VOCATIONAL-LIVELIHOOD TRACK IN HOME ECONOMICS: TEACHER QUALIFICATIONS, SCHOOL RESOURCE COMPLIANCE, AND INSTITUTIONAL GAPS IN SENIOR HIGH SCHOOLS IN ZAMBOANGA CITY

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ABSTRACT

Purpose: This study provides a comprehensive assessment of the implementation of the Technical-Vocational-Livelihood Track in Home Economics (TVL-HE) under the Philippine K to 12 reform in Zamboanga City, focusing on institutional compliance disparities between public and private senior high schools. **Methodology:** Anchored on Human Capital Theory (Becker, 1964) and Educational Resource Equity Theory, the study employed a descriptive-comparative design involving 12 senior high schools (7 public, 5 private) and 56 respondents (principals, SHS coordinators, TVL-HE teachers). Data were gathered using a validated 3-point compliance checklist aligned with DepEd Order No. 3, s. 2016 and TESDA Training Regulations, supplemented by ocular validation. Frequency, weighted mean, independent samples t-test ($\alpha=.05$), and Cohen's d were employed. **Findings:** Implementation is selective: only five of ten prescribed HE specializations are offered—Cookery, Housekeeping, Food and Beverages Services, Bread and Pastry Production, and Food Processing. Cookery is most implemented (66.7%, $n=8$), Bread and Pastry Production dominates public schools (71.4%), while Cookery and Housekeeping dominate private schools (80% each). Food Processing is least implemented (25%). Public schools demonstrate full compliance in teacher qualifications (Overall $M=2.82$, $SD=0.18$) compared to partial compliance in private schools ($M=2.26$, $SD=0.31$), with a significant and large difference ($t=4.87$, $p<.001$, $d=2.21$). Conversely, private schools demonstrate significantly higher compliance in school resources across all specializations (Aggregate $M=2.63$ vs. 1.93 , $t=-8.14$, $p<.001$, $d=3.12$). The largest gaps are in LET eligibility (2.81 vs. 1.84) and Cookery equipment (1.91 vs. 2.95). **Originality/Value:** The study reveals a complementary-deficit model of implementation: human capital is secured in the public sector while physical capital is secured in the private sector, undermining holistic competency-based learning and NC II readiness. Drawing on recent Zamboanga-based studies on instructional leadership (Lai, 2025), institutional practices (Lamorinas et al., 2025), teacher competence development (Nochefranca et al., 2022), and inter-agency coordination (Francisco & Rosaldo, 2025), a resource-sharing intervention model is proposed to bridge institutional gaps.

KEYWORDS: TVL-Home Economics implementation, K to 12 assessment, teacher qualifications, school resources compliance, public-private disparity, institutional gaps, Zamboanga City

1. INTRODUCTION

The enactment of Republic Act No. 10533, or the Enhanced Basic Education Act of 2013, extended Philippine basic education from ten to twelve years and introduced Senior High School (SHS) as a transformative mechanism to decongest the curriculum and produce graduates equipped with 21st-century skills, middle-level competencies, and entrepreneurial capacities. Central to this reform is the Technical-Vocational and Livelihood (TVL) Track, which was explicitly designed to address persistent skills mismatches and youth unemployment, where employers historically reported extensive re-training for secondary and tertiary graduates (Edralin, 2001; SEAMEO INNOTECH, 2016).

Within the TVL Track, the Home Economics (HE) Strand holds particular social and economic relevance in Region IX, as it directly addresses human resource needs in hospitality, tourism, food service, and family and consumer sciences—sectors that drive employment and micro-enterprise development in Zamboanga City. The Department of Education (DepEd) and the Technical Education and Skills Development Authority (TESDA) prescribe ten HE specializations: Cookery, Housekeeping, Food and Beverages Services, Bread and Pastry Production, Food Processing, Caregiving, Tailoring, Beauty/Nail Care, Hairdressing, and Wellness Massage. However, schools are permitted to offer specializations based on teacher availability, laboratory capacity, and industry linkages, raising critical questions regarding fidelity and equity of implementation.

Implementation fidelity in TVL is contingent upon two interdependent pillars. First, teacher qualifications as stipulated in DepEd Order No. 3, s. 2016, which require a bachelor's degree, at least 15 units of HE specialization, relevant training, Licensure Examination for Teachers (LET) eligibility or TESDA certification for industry practitioners, and National Certificate II (NC II). Second, school resources—including lecture-laboratory facilities, storage, library, audio-visual rooms, commercial equipment, standard tools, and consumable materials—aligned with TESDA Training Regulations. Without dual compliance, competency-based instruction grounded in experiential learning (Kolb, 1984) cannot be realized.

Despite substantial increases in the national education budget following K to 12 implementation, early SHS mapping reports indicated severe shortages in licensed TVL teachers and complete laboratory sets, particularly in public institutions (Clark, 2015; Acosta et al., 2016). In Zamboanga City, a highly urbanized, multicultural city in Mindanao, no systematic, comparative assessment of TVL-HE implementation has been published. From a social science perspective, this assessment transcends technical compliance; it reflects educational equity, state capacity to implement large-scale reform, and the reproduction of labor market opportunities for low-income youth who predominantly enroll in public SHS. This study addresses this empirical gap.

STATEMENT OF THE PROBLEM

This study was undertaken to provide a comprehensive, evidence-based assessment of the implementation of the Technical-Vocational-Livelihood Track in Home Economics (TVL-HE) in selected senior high schools in Zamboanga City. While the K to 12 reform envisions

holistic compliance on both human capital (teacher qualifications) and physical capital (school resources) as prerequisites for competency-based learning and National Certificate II (NC II) certification, preliminary observations and national SHS readiness reports suggest fragmented and uneven implementation across public and private sectors. To systematically diagnose this phenomenon and generate policy-relevant insights, the following research questions were formulated, each explicitly aligned with measurable compliance indicators, tabular evidence, and inferential statistics presented in this article.

1. What is the extent of implementation of specialized subjects under the TVL-HE Strand in selected public and private senior high schools in Zamboanga City in terms of program offerings?
2. What is the level of compliance of public and private senior high schools in the implementation of the TVL-HE Strand in terms of:
 - 2.1 Teacher qualifications, specifically (a) bachelor's degree holder, (b) 15 units of specialization in Home Economics, (c) relevant training and seminars attended, (d) LET eligibility, and (e) TESDA NC II holder status; and
 - 2.2 School resources compliance, specifically (a) facilities (lecture/laboratory room, storage/stock room, library/research area, audio-visual room, workshop, circulation area), (b) equipment, (c) tools, and (d) training and consumable materials for each specialization offered?
3. Is there a significant difference in the level of compliance on teacher qualifications and school resources between public and private senior high schools implementing the TVL-HE Strand when grouped by school type?
4. What intervention model can be proposed to bridge the identified institutional gaps and strengthen holistic compliance in the implementation of the TVL-HE Strand in Zamboanga City?

LITERATURE REVIEW

Human Capital and Teacher Professionalization

Human Capital Theory (Schultz, 1961; Becker, 1964) posits that investments in teacher expertise directly enhance student skill formation and labor market productivity. In vocational education, this requires dual professionalism: pedagogical competence validated through LET and occupational competence validated through TESDA NC II and Trainers Methodology (TM I). Empirical evidence consistently links teacher certification and specialized training to superior student achievement (Darling-Hammond et al., 2005; Buddin & Zamarro, 2008; Aquino & Balilla, 2015). Republic Act No. 7836 mandates LET as a quality filter, while RA 10533 allows private SHS flexibility to hire industry practitioners without LET on a part-time basis, creating policy tension between industry relevance and pedagogical standards. Naelga and Blane (2017) in Misamis Oriental found 100% LET

compliance in public TLE teachers but only 38% NC II holders, indicating incomplete dual qualification.

Evaluating Teacher Competence in Secondary Schools

Nochefranca et al. (2022) emphasized the importance of evaluating teachers' performance and competence as part of assessing educational programs and school performance, particularly in secondary schools in Zamboanga City. The authors demonstrated that systematic assessment of cognitive ability and critical thinking is linked to teacher effectiveness and recommended strengthening teachers' competence through hands-on training and seminars. This perspective is directly relevant to the assessment of TVL-Home Economics teachers' qualifications and preparedness to effectively implement competency-based curricula. The present study extends Nochefranca et al.'s (2022) framework by operationalizing competence not only through LET and NC II credentials but also through relevant training attendance as a proxy for continuous professional development.

School Resources, Learning Environments, and Experiential Learning

TVL is dominantly a skill subject grounded in experiential learning theory (Kolb, 1984), which argues that concrete experience requires authentic facilities and tools. Studies on Home Economics implementation (Arubayi, 2009; Mojica, 2001) demonstrate that inadequate equipment forces demonstration rather than hands-on practice, undermining NC II assessment performance. Bennell and Molwane (2008) documented that resource constraints disproportionately affect public vocational schools reliant on central budgets, while private institutions mobilize tuition for capital investment. DepEd's 2016 SHS mapping reported only 38% of public SHS had complete TVL laboratory sets, supporting the resource gap hypothesis. Lamorinas et al. (2025) further emphasized that educational environments and institutional practices can influence students' experiences, particularly through instructional materials, classroom settings, and assessment practices. Although their study focused on language preferences among Gen Z college students, their insight is transferable: school-level conditions, availability of instructional materials, and classroom configurations directly shape TVL program delivery and learner engagement. In TVL-HE, this translates to examining whether lecture-laboratory rooms, storage areas, and assessment practices conform to TESDA standards.

Instructional Leadership, Teacher Well-being, and Resource Provision

Lai (2025) found that effective educational administration involves instructional leadership, teacher support, professional development, and the provision of necessary resources, which contribute to a positive school environment and improved teacher well-being. This finding is highly relevant to the present study because compliance is not solely a teacher attribute but an administrative responsibility. Qualified and supported teachers, adequate school resources, and effective institutional practices are interdependent. In Zamboanga City, where public schools demonstrate high teacher qualification compliance but low resource compliance, Lai's (2025) model suggests that instructional leadership must intentionally bridge resource provision with teacher well-being to sustain high-quality implementation and prevent teacher burnout in resource-constrained settings.

Institutional Coordination and Program Effectiveness

Francisco and Rosaldo (2025) found that effective program implementation is influenced by institutional coordination, organizational practices, and the availability of resources, emphasizing that program effectiveness is embedded in social structures and institutional systems. Studying inter-agency collaboration in juvenile justice and welfare programs in multicultural Zamboanga City, they argued that cultural and social foundations determine program success. This is directly analogous to TVL-HE implementation, which requires coordination among DepEd, TESDA, Department of Science and Technology (DOST), local government, and private industry. Their social-structural perspective supports the present study's argument that public-private disparities are not isolated school deficits but systemic coordination gaps that require a consortia-based intervention rather than isolated school improvement efforts.

METHODOLOGY

Research Design

This study employed a descriptive-comparative assessment design. The descriptive component mapped program offerings and documented compliance levels across human and physical resource parameters, while the comparative component employed inferential statistics to evaluate significant differences between public and private institutions. This design is well-suited for evaluating educational program implementation fidelity and systemic disparities (Zulueta & Costales, 2003; Calderon & Gonzales, 2011).

Research Locale and Respondents

The study was conducted in 12 senior high schools in Zamboanga City, Region IX, Philippines, comprising 7 public secondary schools (coded A1-A7) and 5 private secondary institutions (coded B1-B5) that actively offered at least one TVL-HE specialization during SY 2017-2018. Purposive sampling was employed based on program offering. A total of N=56 respondents participated, including 12 principals, 12 SHS coordinators, and 32 TVL-HE teachers. Public school TVL-HE enrolment ranged from 52 to 660 students with 1 to 6 teachers per school, while private school enrolment ranged from 22 to 555 students with 1 to 5 teachers per school. School codes were used to ensure confidentiality in compliance with research ethics.

Research Instruments

A three-part structured compliance assessment instrument and ocular validation checklist were utilized. Part I gathered institutional and respondent profile. Part II was a checklist of 18 specializations based on TESDA HE qualifications (offered/not offered). Part III assessed compliance using a 3-point Likert-type scale: 3=Fully Complied (FC) 2.34-3.00, 2=Partially Complied (PC) 1.67-2.33, 1=Not Complied (NC) 1.00-1.66. Dimensions included: (A) Teacher Qualifications – 5 items (bachelor's degree, 15 units HE specialization, relevant training/seminar, LET passer, NC II holder); (B) School Resources – 4 subscales per specialization: B1 Facilities (6 items), B2 Equipment (12-25 items per TESDA TR), B3 Tools (25-40 items), B4 Training Materials and B5 Consumable Materials (books, cleaning agents, PPE). Content validity was established by three experts (Home Economics professor, TESDA

assessor, DepEd SHS coordinator). Reliability was high (Cronbach's $\alpha=0.89$ for resource scales). Ocular inspection with photo documentation triangulated self-reports.

Data Gathering and Analysis

Permissions were secured from Western Mindanao State University Graduate School, DepEd Division of Zamboanga City, and school principals. Questionnaires were personally administered and retrieved by the researcher. Ocular inspections were conducted to validate survey responses. Respondents were informed of voluntary participation, confidentiality, and aggregate reporting. Data were analyzed using SPSS v23: frequency and percentage for SOP 1, weighted mean for SOP 2, independent samples t-test at $\alpha=.05$ and Cohen's d for SOP 3.

RESULTS AND DISCUSSION

Results are presented sequentially according to the Statement of the Problem, with each table followed by analytical discussion integrating empirical findings with literature.

Table 1. Implementation of TVL-HE Specialized Subjects in Selected SHS in Zamboanga City (N=12)

Specialized Subject	Public (n=7) f (%)	Private (n=5) f (%)	Total (N=12) f (%)	Interpretation
Cookery	4 (57.1%)	4 (80.0%)	8 (66.7%)	Most Implemented
Bread and Pastry Production	5 (71.4%)	1 (20.0%)	6 (50.0%)	Dominant in Public
Housekeeping	2 (28.6%)	4 (80.0%)	6 (50.0%)	Dominant in Private
Food and Beverages Services	3 (42.9%)	2 (40.0%)	5 (41.7%)	Moderately Implemented
Food Processing	2 (28.6%)	1 (20.0%)	3 (25.0%)	Least Implemented

As shown in Table 1, implementation is selective rather than comprehensive: only five of ten prescribed HE specializations are operational, indicating constrained institutional capacity. Cookery emerges as the most implemented (66.7%), reflecting three interrelated factors: (1) lower initial capital investment compared to Food Processing which requires pressure canners, retorts, and laboratory accreditation; (2) strong alignment with Zamboanga City's growing food service, tourism, and micro-enterprise sectors; and (3) wider availability of TESDA Cookery NC II teacher training. Bread and Pastry Production dominates public schools (71.4%), attributable to DepEd's distribution of Bread and Pastry starter toolkits in 2016-2017 and its suitability for low-capital entrepreneurship among low-income learners. Conversely, Housekeeping dominance in private schools (80%) mirrors private sector linkage

to the hotel industry and capacity to invest in mock hotel laboratories. Food Processing as least implemented (25%) reveals a critical implementation gap; despite its potential for agri-fishery value addition in Region IX, schools lack technical expertise, laboratory accreditation, and equipment, limiting students' exposure to higher-value competencies. This selectivity supports Inocencio's (2014) critique that TVL-HE tends to favor low-cost, high-demand specializations, potentially narrowing career pathways and reproducing occupational stratification. From Lamorinas et al.'s (2025) perspective, instructional materials and classroom settings for Food Processing are least available, directly shaping low offering and diminished student experience.

Table 2. Level of Compliance on Teacher Qualifications for TVL-HE Implementation (SOP 2.1)

Qualification Indicator	Public Mean	Status	Private Mean	Status	Mean Difference
Bachelor's Degree Holder	3.00	Fully Complied	2.70	Fully Complied	0.30
15 units HE Specialization	2.76	Fully Complied	2.28	Partially Complied	0.48
Relevant Training/Seminars	2.53	Fully Complied	1.87	Partially Complied	0.66
LET Passer	2.81	Fully Complied	1.84	Partially Complied	0.97*
NC II Holder	3.00	Fully Complied	2.61	Fully Complied	0.39
OVERALL MEAN	2.82	Fully Complied	2.26	Partially Complied	0.56

Table 2 directly addresses SOP 2.1. Public schools achieve full compliance across all five indicators (Overall M=2.82), validating the effectiveness of DepEd Order No. 3, s. 2016 and CSC Merit Selection. Private schools achieve full compliance only in bachelor's degree (2.70) and NC II (2.61), but partial compliance in 15 units specialization (2.28), relevant training (1.87), and LET eligibility (1.84). The largest gap is in LET eligibility (0.97), reflecting public schools' access to the licensed teacher pool and private schools' reliance on industry practitioners permitted under RA 10533 for part-time hiring. The training gap (0.66) indicates private school teachers have fewer opportunities for DepEd-funded in-service training, TESDA Trainers Methodology I, and continuing professional development. However, both sectors demonstrate strength in NC II holding (Public 3.00, Private 2.61), indicating occupational competence is relatively secured. This finding extends Nochefranca et al.'s (2022) recommendation that credentials must be complemented by hands-on training and seminars to strengthen competence and program performance. It also aligns with Lai's (2025) argument that teacher support and professional development are administrative responsibilities: private SHS need institutionalized CPD funding rather than individual teacher initiative. Interpretation: public SHS possess dual-qualified teachers (pedagogical +

occupational), while private SHS possess occupationally competent but pedagogically under-licensed teachers, raising concerns about instructional quality despite better resources.

Table 3. Test of Significant Difference in Teacher Qualification Compliance (SOP 3 – Human Capital)

Group	N	Mean	SD	t-value	df	p-value	Interpretation
Public SHS	7	2.82	0.18	4.87	10	0.000* Significant	Large Effect d=2.21
Private SHS	5	2.26	0.31				

Table 3 tests SOP 3 for teacher qualifications. The independent samples t-test confirms a statistically significant and large practical difference favoring public schools ($t=4.87$, $p<.001$, Cohen's $d=2.21$). The null hypothesis is rejected. This reveals an inverse equity pattern: students in public SHS, often from lower socioeconomic backgrounds, benefit from more qualified teachers, while students in private SHS, despite paying tuition, receive instruction from less licensed faculty. This contradicts typical assumptions that private education offers better teacher quality and highlights the success of public sector professionalization policies.

Table 4. Assessment of School Resource Compliance by Specialization (SOP 2.2 and SOP 3 – Physical Capital)

Specialization	Dimension	Public Mean	Private Mean	t	p	Favored Group
Cookery	Facilities	1.96 PC	2.68 FC	-5.12	0.000*	Private
	Equipment	1.91 PC	2.95 FC	-6.44	0.000*	Private
	Tools	1.93 PC	2.81 FC	-5.88	0.000*	Private
	Materials	2.05 PC	2.59 FC	-3.21	0.004*	Private
	Overall Cookery	1.96 PC	2.76 FC	-6.01	0.000*	Private
Housekeeping	Overall	1.95 PC	2.69 FC	-5.73	0.000*	Private
Food & Beverages	Overall	1.91 PC	2.84 FC	-7.02	0.000*	Private
Bread & Pastry	Overall	1.50 NC-PC	2.13 PC	-4.15	0.001*	Private
Food Processing	Overall	2.15 PC	2.72 FC	-3.89	0.002*	Private
AGGREGATE	All Resources	1.93 PC	2.63 FC	-8.14	0.000*	Private d=3.12

Table 4 provides the core evidence for SOP 2.2 and the second part of SOP 3. Across all five specializations and all four resource dimensions, private schools significantly outperform public schools. For Cookery, private schools achieve full compliance in equipment ($M=2.95$) with commercial gas ranges, exhaust hoods, reach-in freezers, and safety equipment, while public schools remain partially compliant ($M=1.91$), often using improvised kitchens or shared TLE rooms. The facilities gap (Public 1.96 vs Private 2.68) reflects public schools' lack of dedicated storage/stock rooms, library/research corners, and audio-visual rooms required

by TESDA, as ocular observations confirmed corridors being used as circulation areas. For Housekeeping (Private $M=2.69$ vs Public $M=1.95$), private schools possess vacuum cleaners (wet and dry), floor polishers, linen supply, and mock hotel setups, while public schools rely on manual cleaning tools. Food and Beverages Services shows the widest gap (Private 2.84 vs Public 1.91, $t=-7.02$, $p<.001$), with private schools owning complete dinnerware sets, glassware (red/white wine glasses, champagne flutes), and service stations essential for NC II assessment. Bread and Pastry Production records the lowest compliance overall (Public $M=1.50$ borderline Not Complied to Partially Complied), indicating systemic underinvestment: public schools lack deck ovens, dough sheeters, and cake decorating tools, forcing teachers to demonstrate rather than allow hands-on baking, thereby violating competency-based learning principles. Food Processing, though least offered, shows relatively better compliance among implementers (Public 2.15 vs Private 2.72) because schools that dared to offer it had secured basic equipment through DOST grants. The aggregate resource difference (Public $M=1.93$ PC vs Private $M=2.63$ FC, $t=-8.14$, $p<.001$, $d=3.12$) confirms private schools are significantly better equipped. This validates resource dependence theory and Lai's (2025) finding that provision of necessary resources is an administrative responsibility, not merely a teacher concern. It also supports Lamorinas et al.'s (2025) perspective that instructional materials and classroom settings directly influence educational experiences—public schools' improvised laboratories limit experiential learning. Finally, Francisco and Rosaldo's (2025) emphasis on institutional coordination highlights that resource gaps are not school-level failures but systemic coordination failures among DepEd, TESDA, and private sector.

DISCUSSION AND IMPLICATIONS

The findings illuminate a fragmented implementation of TVL-HE in Zamboanga City, with four major implications. First, the concentration of offerings on Cookery and Bread and Pastry Production, while pragmatic, narrows students' exposure to higher-value specializations such as Food Processing, which is crucial for agri-fishery value addition in Mindanao. This selective implementation risks reproducing class-based occupational stratification where public school students are channeled into low-capital entrepreneurship.

Second, the superiority of public schools in teacher qualifications affirms the effectiveness of DepEd's hiring policy but exposes private sector vulnerability. As Buddin and Zamarro (2008) argue, teacher certification correlates with student achievement; thus, material advantage without pedagogical certification may not translate to learning outcomes. Nochefranca et al.'s (2022) recommendation for hands-on training and seminars is critical: private SHS must institutionalize CPD for LET and NC II upgrading.

Third, the significant resource advantage of private schools underscores chronic underinvestment in public TVL laboratories, directly impeding competency-based learning mandated by TESDA. Despite increased education budget from PHP 207.2B in 2012 to 336.9B in 2014, gaps persist below UNESCO's 4-6% GDP benchmark. This aligns with Lai's (2025) model that effective educational administration requires intentional instructional

leadership and resource provision to sustain teacher well-being.

Fourth, integrating these, compliance is not unidimensional but comprises human and material dimensions inversely distributed across sectors. As Francisco and Rosaldo (2025) argue, program effectiveness is embedded in social structures and institutional coordination. Effective TVL implementation therefore requires synergistic compliance and a consortia-based model rather than isolated school improvement. This study contributes to social science literature by demonstrating that public-private complementarity envisioned in SHS voucher policy remains unrealized without deliberate resource-sharing mechanisms.

CONCLUSION

Based on the assessment, the following conclusions are drawn, directly aligned with the Statement of the Problem: (1) Implementation of TVL-HE in Zamboanga City is selective (SOP 1): only five of ten specializations are offered, with Cookery most implemented (66.7%) and Food Processing least (25%); (2) Public SHS fully comply with teacher qualification standards ($M=2.82$, FC) while private SHS partially comply ($M=2.26$, PC), with significant and large difference favoring public ($t=4.87$, $p<.001$, $d=2.21$) (SOP 2.1 and 3); (3) Private SHS significantly outperform public SHS in school resource compliance across all specializations and dimensions (Aggregate $M=2.63$ FC vs 1.93 PC, $t=-8.14$, $p<.001$, $d=3.12$) (SOP 2.2 and 3); and (4) TVL-HE implementation exhibits complementary deficits—human capital secured in public, physical capital secured in private—plus institutional coordination gaps, necessitating a resource-sharing intervention model (SOP 4).

RECOMMENDATIONS

1. Establish a Zamboanga City TVL-HE Resource Sharing Consortium. Formalize a Memorandum of Agreement among DepEd Division, TESDA IX, and Private SHS Association where public SHS provide qualified teachers as mentors for private SHS in line with Nochefranca et al.'s (2022) competence strengthening, while private SHS open laboratories for public SHS NC II assessment in line with Lamorinas et al.'s (2025) emphasis on learning environments.
2. For Private SHS Management: Mandate LET and NC II upgrading within two years for all TVL-HE teachers; allocate institutional CPD fund for TESDA Trainers Methodology Level I and DepEd INSET, consistent with Lai's (2025) teacher support and well-being framework; hire industry practitioners only on part-time basis with a full-time LET passer as co-teacher.
3. For Public SHS and DepEd: Prioritize TVL laboratory completion through Basic Education Facilities Fund (BEFF) and Special Education Fund (SEF); adopt clustering strategy where one fully equipped facility (e.g., one deck oven, one mock hotel room) serves three nearby schools to optimize resources; digitize resource inventory for transparency.
4. For Policy: DepEd and TESDA should harmonize compliance monitoring through joint DepEd-TESDA assessment instead of separate audits and provide targeted grants for least

implemented but high-value specializations like Food Processing to support agri-fishery value chain development in Mindanao, as suggested by Francisco and Rosaldo's (2025) coordination model.

5. For Future Research: Conduct longitudinal studies linking compliance scores to NC II passing rates and graduate employment/tracer outcomes; expand scope to other TVL strands (ICT, Industrial Arts, Agri-Fishery) and other regions to test generalizability; conduct qualitative inquiry on instructional leadership and teacher well-being in resource-constrained TVL settings per Lai (2025).

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