

Teacher Qualifications, Learner Mastery, and Resource Adequacy in the Technical-Vocational Livelihood Home Economics Strand

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ABSTRACT

Philippine senior high schools have offered the Technical-Vocational Livelihood (TVL) track since 2016, yet school-level evidence on how adequately the Home Economics strand is staffed and resourced remains limited. This study determined the status of implementation of the TVL-Home Economics strand in six public secondary schools in Area I, Division of Leyte, during School Year 2022-2023. A descriptive quantitative design was employed. Total enumeration produced 6 school administrators and 10 Home Economics teachers, while stratified random sampling produced 127 Grade 12 learners. Data were gathered through an adopted survey questionnaire covering respondent profile and the adequacy, availability, and usability of curricular and physical resources, and

through three 50-item achievement tests in Cookery, Food and Beverage Services, and Bread and Pastry Production drawn from TESDA Online Program modules. Documentary analysis of Basic Education Information System records supplied graduation data. Frequency, percentage, mean, standard deviation, and mean percentage score (MPS) were computed. Half of the teachers held only a baccalaureate degree and 70% had fewer than five years of TVL teaching experience; 80% had received no Department of Education specialized training and 70% held no Trainer's Methodology certification, while most administrators specialized in non-technical fields. Learner achievement was Average across the three sub-tests (overall MPS = 41.20%), far below the 75% departmental target, even as the mean graduation rate reached 91.58%. Instructional materials and assessment tools were rated Very High on all three dimensions, whereas physical facilities, tools, and equipment were rated High, with TVL offices rated Low. The findings indicate that material provision has outpaced human-resource development, and argue for targeted certification support, protected laboratory budgets, and dedicated TVL workspaces.

Keywords: *achievement level, curriculum implementation, instructional materials, physical facilities, senior high school, teacher training, technical-vocational livelihood*

INTRODUCTION

Republic Act No. 10533, the Enhanced Basic Education Act of 2013, added two years of senior high school to Philippine basic education in order to produce graduates prepared either for higher education or for immediate employment (Gamboa et al., 2020; Orbeta et al., 2018). Among the tracks introduced, the Technical-Vocational Livelihood (TVL) track carries the heaviest expectation of employability, because its learners are certified against national competency standards rather than assessed on academic content alone (Estonanto, 2017; Puricallan, 2020). The Home Economics strand within this track covers Cookery, Food

and Beverage Services, and Bread and Pastry Production, qualifications that feed directly into the tourism and food-service industries.

A decade of implementation has not settled the question of whether schools can deliver what the track promises. Process evaluations of senior high school implementation report persistent shortfalls in laboratory equipment, teaching materials, and qualified technical teachers, together with the practice of assigning junior high school teachers to TVL loads because Civil Service qualification standards make specialist recruitment slow (Brillantes et al., 2019). Comparable findings recur across strands: tools and equipment for Electrical Installation and Maintenance and for Shielded Metal Arc Welding fell short of qualification specifications (Rusiana & Flores, 2019), instructional materials in Technology and Livelihood Education were insufficient for enrolment size and were not routinely tested for serviceability (Albarico, 2014), and inadequate materials depressed both skill acquisition and teacher motivation in electrical and electronics technology courses (Ogbu, 2015).

The teacher variable is equally well documented. Combalicer (2016) found that teachers entering the K to 12 curriculum lacked seminars and training matched to their specialisation, which constrained their capacity to design activities for the new curriculum. Macaraeg and Cocal (2020) traced ineffective TVET outcomes to weak industry linkage and to the mismatch between skills acquired in vocational schooling and subsequent demand, while Autentico and Alerta (2020) reported job mismatch among 64% of TVL graduates in one city, with national certification and instructional quality among the underpinning factors. Alonzo (2017), working in technical-vocational agricultural secondary schools in Leyte, concluded that both faculty and school administration needed postgraduate advancement and scholarship access in their fields of specialisation.

Resource adequacy has likewise been linked to learner outcomes. Akomolafe and Adesuav (2016) established a close relationship between the quality of available materials and academic achievement in Nigerian secondary schools; Olanyika (2016) reported comparable effects for instructional materials in social studies; and Okongo et al. (2015) found that 78% of respondents regarded teaching and learning as critically compromised where resources were absent. Mañanita (2021) extended this line specifically to Philippine technical-vocational education, relating the adequacy and utilisation of tools and equipment to learner performance. Employment conditions matter as well: teachers who felt secure in their appointments invested more effort and creativity in their lessons (ILO, 2021; Symeonidis, 2015), and postgraduate coursework has been associated with higher professional efficiency (Bacus & Alda, 2022; Delmonte, 2022).

What this body of work has not produced is a school-level account that places teacher and administrator qualifications, learner mastery, completion, and resource adequacy side by side within a single Home Economics implementation setting. Studies tend to isolate one element, so it remains unclear whether the widely reported material shortfalls or the equally widely reported human-resource shortfalls carry more weight where the strand is actually delivered. Establishing which of the two constrains implementation more sharply has direct budgetary consequences for divisions that must choose between procurement and capacity building.

This study therefore determined the status of implementation of the TVL-Home Economics strand in selected secondary schools in the Division of Leyte during School Year 2022-2023. Specifically, it sought to (1) determine the profile of Home Economics teachers and school administrators, the achievement level of Grade 12 learners, and the graduation rate of the strand; and (2) determine the level of adequacy, availability, and usability of instructional materials, assessment tools, physical facilities, tools, and equipment as perceived by teachers and school administrators.

METHODS

Research Design

The study used a descriptive quantitative design. Descriptive survey procedures established the profile of teachers and school administrators, the achievement level and graduation rate of Grade 12 Home

Economics learners, and the perceived adequacy, availability, and usability of curricular and physical resources. The design was appropriate because the objectives called for the characterisation of an existing implementation status at a single point in time rather than for the manipulation of variables or the estimation of causal effects.

Research Locale

The study was conducted in six public secondary schools in Area I of the Division of Leyte, Philippines, that offer the TVL-Home Economics strand with qualifications in Cookery, Food and Beverage Services, and Bread and Pastry Production. The schools are located in the municipalities of Babatngon, Tanauan, and Tolosa. They were included without regard to school type, enrolment size, or classification, so that the resulting picture would reflect the range of conditions actually present in the area rather than a selected subset of well-resourced sites.

Participants and Sampling Technique

Total enumeration was used for the adult respondents. All six school administrators and all ten senior high school Home Economics teachers assigned to the six schools took part, giving a combined group of sixteen respondents for the resource-perception instrument. For the learner group, stratified random sampling was applied, with the school serving as the stratum, yielding 127 Grade 12 learners enrolled in Cookery, Food and Beverage Services, and Bread and Pastry Production. Participation was voluntary at every level.

Research Instrument

Two instruments were used. The first was a guided-response survey questionnaire adopted from Alonzo (2017). Part One captured the profile of teachers and school administrators, covering highest educational attainment, area of specialisation, length of teaching experience in the TVL track, employment status, eligibility, technical-vocational trainings and seminars attended, and teaching performance as rated through the Individual Performance Commitment and Review Form. Part Two recorded the number of learners who completed the academic requirements within the school year. Parts Three and Four measured the perceived level of adequacy, availability, and usability of instructional materials and assessment tools, and of physical facilities, tools, and equipment, respectively.

Responses to Parts Three and Four were registered on a five-point scale interpreted as Very High (5), High (4), Moderate (3), Low (2), and Very Low (1). The second instrument consisted of three 50-item achievement tests, designated Set A for Cookery, Set B for Food and Beverage Services, and Set C for Bread and Pastry Production, adopted from TESDA Online Program modules so that item content would correspond to the competency standards against which learners are certified.

Validity and Reliability

Both instruments were adopted in their published form. The survey questionnaire had been developed and used by Alonzo (2017), and the achievement tests were drawn from TESDA Online Program modules, which are aligned with national competency standards for the three qualifications. On this basis the researcher did not conduct separate content validation or pilot testing, and no reliability coefficient was computed for the present sample. This is acknowledged as a methodological limitation, and the perception ratings in particular should be read as descriptive of respondent judgement rather than as psychometrically calibrated measures.

Data Gathering Procedure

Permission to conduct the study was secured from the Schools Division Superintendent, after which request letters were sent to the principals of the six participating schools. The survey questionnaire was administered directly to teachers and school administrators, with the purpose of the study explained beforehand. The researcher personally administered the achievement tests to the sampled learners on

schedules agreed with each school; learners were given three hours to complete the three sub-tests, and test papers were retrieved only after scoring in order to protect the integrity of the instrument. Graduation data were obtained through documentary analysis of Basic Education Information System reports consolidated by the Education Management Information System focal person of each school.

Ethical Considerations

Approval was obtained from the Schools Division Superintendent and from each school principal before any data were collected. Learners and teachers were oriented separately and were given sufficient time to answer without pressure. A waiver was provided to guarantee confidentiality and to allow respondents to withhold information they did not wish to disclose. Respondents were informed that all data would be treated in strict confidence and reported anonymously, and permission was sought before any response was recorded. Schools are identified in the results only as School 1 through School 6.

Statistical Treatment

Frequency counts and percentages summarised the profile of teachers and school administrators. Weighted means and standard deviations described the achievement of learners and the perceived level of adequacy, availability, and usability of resources. Mean percentage scores (MPS) were computed for each achievement sub-test and interpreted against the mastery levels prescribed in DepEd Memorandum No. 160, s. 2012, and against the 75% departmental target. Graduation rate was computed as the ratio of graduates to enrolment per school and for the whole group. Data were tallied and analysed using Microsoft Excel and the Statistical Package for the Social Sciences.

RESULTS AND DISCUSSION

Profile of Home Economics Teachers and School Administrators

Table 1 presents the profile of the ten Home Economics teachers and six school administrators of the participating schools.

Table 1. *Profile of TVL-Home Economics Teachers and School Administrators*

Indicator	Teacher (n = 10)		School Administrator (n = 6)	
	f	%	f	%
<i>Highest Educational Attainment</i>				
Bachelor's Degree	5	50%	—	—
With Master's Units	4	40%	—	—
Master's Degree	—	—	3	50%
With Doctoral Units	1	10%	1	16.6%
Doctoral Degree	—	—	2	33.3%
<i>Area of Specialization</i>				
Home Economics	8	80%	1	16.6%
Mathematics	2	20%	3	50%
Social Science	—	—	1	16.6%
Science	—	—	1	16.6%
<i>Length of Teaching Experience in TVL</i>				
Below 5 years	7	70%	—	—
6 to 10 years	2	20%	—	—
21 years and above	1	10%	6	100%
<i>Employment Status</i>				
Regular Permanent	9	90%	—	—
Provisional	1	10%	—	—
<i>Eligibility</i>				
LET Passer	8	80%	—	—
Career Service Professional	1	10%	—	—

None	1	10%	—	—
<i>Relevant Trainings Attended: DepEd</i>				
None	8	80%	3	30%
Regional	2	20%	3	30%
<i>Relevant Trainings Attended: TESDA NC / TM</i>				
NC II	10	100%	1	16.6%
NC III	1	10%	—	—
TM I	3	30%	1	16.6%
Not TM Holder	7	70%	—	—
<i>Teaching Performance (IPCRF)</i>				
Satisfactory	2	20%	—	—
Very Satisfactory	6	60%	—	—
Outstanding	2	20%	—	—
<i>Position / Designation</i>				
Principal II	—	—	2	33.3%
Principal I	—	—	1	16.6%
Assistant School Principal II	—	—	1	16.6%
Senior High School Coordinator	—	—	1	16.6%
TVL Coordinator	—	—	1	16.6%

The educational profile of the two groups diverges sharply. Half of the teachers had completed no qualification beyond the baccalaureate, whereas every administrator held at least a master's degree and a third held a doctorate. The direction of specialisation reverses this pattern. Eight of ten teachers were specialists in Home Economics, but only one administrator shared that field; the remainder came from Mathematics, Science, and Social Science. Instructional supervision in the strand is therefore exercised largely by school leaders whose disciplinary background lies outside technical-vocational practice, which limits their capacity to evaluate laboratory teaching, workshop safety, and competency assessment on technical grounds. Malgapo and Ancheta (2020) argued that senior high school teachers drawn from adjacent fields can meet learner demands in technical areas; the present distribution suggests that this argument is more difficult to sustain at the supervisory level, where the gap is not in delivery but in the ability to judge whether delivery meets national competency standards.

Experience is concentrated at opposite ends of the two groups. Seven of ten teachers had taught in the TVL track for fewer than five years, while all six administrators had served for at least twenty-one years. The teaching workforce in the strand is thus predominantly early-career and is being supervised by a long-tenured but non-specialist leadership. Employment conditions were nonetheless stable, with nine of ten teachers holding regular permanent appointments and eight of ten registered as licensure passers, a configuration that the ILO (2021) and Symeonidis (2015) associate with greater instructional investment and lower vulnerability to bureaucratic change.

The training data expose the study's clearest gap. All ten teachers held National Certificate Level II in their qualification, confirming industry-level competence in the trade itself. Certification in how to teach that trade is a different matter: seven of ten held no Trainer's Methodology certificate, and eight of ten had attended no Department of Education training relevant to the strand. Among administrators, five of six had no exposure to TESDA technical skills training at all. Trade competence and pedagogical competence are being acquired unevenly, with the second lagging the first. This mirrors Combalicer (2016), who traced difficulties in designing curriculum-aligned activities to the absence of specialisation-matched seminars, and Calanog (2019), who recommended sustained training in pedagogical approaches for exploratory Technology and Livelihood Education courses. Teaching performance ratings, by contrast, were favourable, with 80% rated Very Satisfactory or Outstanding, indicating that the Individual Performance Commitment and Review Form is not sensitive to the technical-pedagogical gap the training data reveal.

Achievement Level of Grade 12 Home Economics Learners

Table 2 presents the achievement of the 127 learner-respondents across the three Home Economics sub-tests.

Table 2. *Achievement Level of Grade 12 Learners in the Three Home Economics Sub-Tests (n = 127)*

Sub-Test	Mean	SD	MPS	Interpretation
Bread and Pastry Production	21.02	5.75	42.04%	Average
Cookery	20.48	5.23	40.96%	Average
Food and Beverage Services	20.30	5.89	40.60%	Average
Overall	20.60	5.62	41.20%	Average

All three sub-tests fall within the Average Mastery band defined in DepEd Memorandum No. 160, s. 2012, and all three sit roughly thirty-four percentage points below the 75% departmental target. The three means differ by less than one raw score point and the standard deviations are almost identical, so the shortfall is not concentrated in any one qualification. A uniform deficit of this kind points away from qualification-specific causes such as a difficult competency cluster or a weak module, and towards conditions common to all three: the limited practical exposure that laboratory constraints impose, and the pedagogical training gap documented in Table 1. The standard deviations, at roughly a quarter of the mean, indicate that learners cluster near the middle of the distribution rather than dividing into high and low performing groups, which suggests a general ceiling on attainment rather than uneven support within classes.

The result is consistent with Ogbu (2015), who linked inadequate instructional provision to depressed skill acquisition, and with Mañanita (2021), who related the adequacy and utilisation of tools and equipment to learner performance in Philippine technical-vocational education. It is also consistent with Capistrano (2019), for whom financial constraint was the principal obstacle to skill application in Bread and Pastry Production. The practical significance is considerable, since these are the competencies against which learners are later assessed for national certification, and mastery well below target at exit constrains both certification prospects and the employability the track is designed to deliver.

Graduation Rate

Table 3 presents enrolment, number of graduates, and graduation rate by school for School Year 2022-2023.

Table 3. *Enrolment, Graduates, and Graduation Rate of TVL-Home Economics Learners, SY 2022-2023*

School	Enrolment			Graduates			Graduation Rate (%)
	M	F	Total	M	F	Total	
School 1	8	42	50	8	35	43	86.00
School 2	9	24	33	9	24	33	100.00
School 3	8	15	23	8	14	22	95.65
School 4	9	27	36	8	24	32	88.89
School 5	4	6	10	3	3	6	60.00
School 6	6	32	38	6	32	38	100.00
Total	44	146	190	42	132	174	91.58

Across the six schools, 174 of 190 enrolled learners completed the strand, an overall graduation rate of 91.58%. Two schools reported full completion and a third exceeded 95%, while the lowest rate, 60.00%, was recorded in the school with the smallest cohort, where a single non-completing learner moves the percentage by ten points. Female learners accounted for 146 of the 190 enrollees, confirming the strongly gendered enrolment pattern long associated with the Home Economics strand.

Read against Table 2, the completion figures describe a system in which learners progress through the strand at a high rate while demonstrating average mastery of its core competencies. Completion and competence are therefore measuring different things here: the first reflects the fulfilment of course requirements and school-level retention practice, the second reflects command of the qualification. Interpreting a high graduation rate as evidence of successful implementation would be unwarranted on this evidence. The distinction matters for policy, because completion is the more visible indicator in departmental reporting while certification outcomes depend on the less visible one.

Adequacy, Availability, and Usability of Instructional Materials

Table 4 presents the perceptions of the sixteen teacher and administrator respondents regarding instructional materials.

Table 4. *Level of Adequacy, Availability, and Usability of Instructional Materials (n = 16)*

Category		Adequacy		Availability		Usability	
Indicator		M	Interpretation	M	Interpretation	M	Interpretation
<i>Printed Materials</i>							
Curriculum Guide		4.88	Very High	4.88	Very High	4.88	Very High
Learning Module		4.38	Very High	4.50	Very High	4.44	Very High
Teacher's Guide		4.44	Very High	4.44	Very High	4.44	Very High
References		4.56	Very High	4.56	Very High	4.56	Very High
Students' Hand-outs		4.19	High	4.19	High	4.19	High
Sub-Mean		4.49	Very High	4.51	Very High	4.50	Very High
<i>Visual Materials</i>							
Charts		4.56	Very High	4.56	Very High	4.56	Very High
Photos		4.63	Very High	4.63	Very High	4.63	Very High
Sub-Mean		4.59	Very High	4.59	Very High	4.59	Very High
<i>Audio-Visual Materials</i>							
Slides		4.80	Very High	4.73	Very High	4.80	Very High
Television		4.73	Very High	4.73	Very High	4.73	Very High
Multimedia		4.67	Very High	4.67	Very High	4.73	Very High
Videos		4.87	Very High	4.80	Very High	4.87	Very High
Sub-Mean		4.77	Very High	4.73	Very High	4.78	Very High
<i>Electronic-Interactive Materials</i>							
Computer		4.75	Very High	4.87	Very High	4.87	Very High
Printer		4.50	Very High	4.53	Very High	4.53	Very High
Tablets		4.56	Very High	4.60	Very High	4.47	Very High
Flash Drive		4.63	Very High	4.60	Very High	4.60	Very High
Hard Drive		4.56	Very High	4.53	Very High	4.53	Very High
Digital Camcorder		3.81	High	3.87	High	3.53	High
Projector		4.38	Very High	4.40	Very High	4.40	Very High
Sub-Mean		4.46	Very High	4.49	Very High	4.42	Very High
Grand Mean		4.58	Very High	4.58	Very High	4.57	Very High

Table 5. *Level of Adequacy, Availability, and Usability of Assessment Tools (n = 15)*

Assessment Tool		Adequacy		Availability		Usability	
Indicator		M	Interpretation	M	Interpretation	M	Interpretation
Rating Sheet		5.00	Very High	5.00	Very High	5.00	Very High
Performance Sheet	Rating	4.87	Very High	4.86	Very High	4.86	Very High
Test Item Bank		4.80	Very High	4.73	Very High	4.73	Very High
Portfolio		4.93	Very High	4.93	Very High	5.00	Very High

Overall Mean	4.90	Very High	4.90	Very High	4.90	Very High
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Instructional materials were rated Very High on all three dimensions, with grand means of 4.58 for adequacy and availability and 4.57 for usability. Assessment tools were rated even higher, at a uniform 4.90 across the three dimensions, with rating sheets receiving the maximum possible score. Only two items departed from the Very High band. Students' hand-outs, the one printed resource that schools must reproduce from their own funds rather than receive through central procurement, and the digital camcorder, the least commonly deployed device in the set, both fell to the High level; the camcorder also recorded the widest gap between availability and usability in the entire table, suggesting units that are present but not in working use.

The pattern is coherent rather than incidental. Centrally procured and centrally distributed resources rate highest, while resources dependent on school-level reproduction or on specialised technical upkeep rate lowest. This indicates that the Department of Education's supply chain for the strand is functioning as designed, and it stands in contrast to earlier findings of material scarcity in senior high school implementation (Albarico, 2014; Brillantes et al., 2019; Ogbu, 2015). The divergence may reflect the passage of time, since central delivery to senior high schools has continued in the years since those studies were conducted.

Two cautions attach to these figures. First, the ratings are perceptions supplied by sixteen respondents, ten of whom are the teachers whose own instructional provision is being judged, and self-assessment of resources one is accountable for tends toward leniency. Second, and more consequentially, the near-ceiling ratings for instructional materials and assessment tools coexist with Average learner mastery reported in Table 2. Since Akomolafe and Adesuav (2016), Olanyika (2016), and Okongo et al. (2015) all relate material adequacy to achievement, the absence of that relationship here is informative: where materials are abundant, they cease to be the binding constraint, and attention shifts to whether teachers have been trained to convert them into competency-based instruction. Table 1 indicates that, for seven of ten teachers, that training has not occurred.

Adequacy, Availability, and Usability of Physical Facilities

Table 6 presents perceptions of the physical facilities supporting the strand.

Table 6. *Level of Adequacy, Availability, and Usability of Physical Facilities (n = 16)*

Facility Indicator	Adequacy		Availability		Usability	
	M	Interpretation	M	Interpretation	M	Interpretation
Classroom	4.25	Very High	4.25	Very High	4.50	Very High
Chairs	4.38	Very High	4.28	Very High	4.50	Very High
Laboratories	3.69	High	3.75	High	3.94	High
TVL Office	2.38	Low	2.38	Low	2.50	Low
TVL Learning Resource	3.81	High	3.88	High	4.00	High
Library	3.88	High	3.87	High	3.93	High
Water Supply	3.38	High	3.44	High	3.56	High
Wash Area	3.69	High	3.67	High	3.80	High
Clinic with Medical Supplies	3.88	High	3.87	High	4.00	High
Electrical Supply	4.50	Very High	4.47	Very High	4.47	Very High
Storage Area	3.88	High	3.67	High	3.80	High
Food Service Area	3.69	High	3.67	High	3.80	High
Grand Mean	3.78	High	3.77	High	3.90	High

Physical facilities were rated High overall, a full band below the ratings given to instructional materials. Within this generally favourable picture, one indicator is isolated at the Low level: the TVL office, rated 2.38 for adequacy and availability and 2.50 for usability. No other item in any of the four

resource tables falls below the Moderate band. The finding indicates that the strand operates without dedicated administrative and preparatory space in most of the participating schools, which affects the secure storage of tools, the preparation of laboratory activities, the safekeeping of competency records, and the coordination of industry immersion.

The remaining facilities arrange themselves along a recognisable line. Generic school infrastructure, namely classrooms, chairs, and electrical supply, was rated Very High, while every facility specific to food-related instruction, namely laboratories, wash areas, water supply, storage, and food service areas, was rated High. Water supply drew the lowest of these at 3.38 for adequacy. In qualifications where sanitation is itself an assessed competency, water and wash provision is not ancillary but integral, and ratings in the lower portion of the High band deserve attention rather than reassurance. Facilities that serve every strand are therefore better provided than facilities that serve only this one, which is consistent with Wambua et al. (2018) and Akomolafe and Adesuav (2016) on the relationship between facility quality and learner performance, and with Caballero et al. (2015) on the mismatch between school infrastructure and the strands stakeholders actually prefer.

Adequacy, Availability, and Usability of Tools and Equipment

Table 7 presents perceptions of the tools and equipment specific to the three qualifications.

Table 7. *Level of Adequacy, Availability, and Usability of Tools and Equipment by Qualification (n = 16)*

Tool / Equipment Indicator	Adequacy		Availability		Usability	
	M	Interpretation	M	Interpretation	M	Interpretation
<i>Bread and Pastry Production</i>						
Measuring Cup	3.75	High	3.67	High	3.93	High
Dough Cutter	3.75	High	3.60	High	3.93	High
Flour Sifter	3.94	High	3.80	High	4.00	High
Electric Mixer	4.06	High	4.00	High	4.13	High
Grater	3.88	High	3.80	High	4.00	High
Mixing Bowl	3.56	High	3.47	High	3.60	High
Rolling Pin	3.88	High	3.73	High	3.87	High
Rotary Beater	3.94	High	3.87	High	3.73	High
Rubber Scraper	4.00	High	3.93	High	4.07	High
Baking Pan	3.94	High	3.87	High	4.00	High
Wooden Spoon	3.63	High	3.53	High	3.67	High
Oven	4.13	High	4.13	High	4.20	High
Working Table	4.06	High	4.00	High	4.00	High
Chiller	3.73	High	3.71	High	3.71	High
Sub-Mean	3.87	High	3.79	High	3.92	High
<i>Cookery</i>						
Can Opener	3.75	High	3.73	High	3.80	High
Colander	3.75	High	3.67	High	3.80	High
Cutting Board	3.75	High	3.73	High	3.80	High
Temperature Scale	3.38	High	3.27	High	3.27	High
Wooden Spoon	3.94	High	3.87	High	3.87	High
Whisks	3.94	High	3.87	High	4.00	High
Measuring Spoon	3.88	High	3.73	High	3.93	High
Double Boiler	3.56	High	3.47	High	3.54	High
Cooking Pot	3.63	High	3.53	High	3.53	High
Skillet / Frying Pan	3.56	High	3.53	High	3.53	High
Refrigerator	4.25	Very High	4.07	High	4.14	High
Gas Range	4.38	Very High	4.25	Very High	4.33	High
Working Table	3.44	High	3.44	High	3.40	High

Blender	3.25	Moderate	3.25	Moderate	3.50	High
Microwave	3.31	Moderate	3.25	Moderate	3.33	Moderate
Crockery	3.31	Moderate	3.31	Moderate	3.33	Moderate
Condiments Table	3.13	Moderate	3.13	Moderate	3.00	Moderate
Sub-Mean	3.66	High	3.59	High	3.65	High
<i>Food and Beverage Services</i>						
Glassware	3.75	High	3.67	High	3.80	High
Cutleries	3.88	High	3.81	High	4.00	High
Chinaware	3.69	High	3.69	High	3.81	High
Flatware	3.75	High	3.75	High	3.75	High
Hollowware	3.88	High	3.88	High	4.00	High
Sidestand	3.63	High	3.56	High	3.75	High
Linens	3.81	High	3.81	High	3.94	High
Sub-Mean	3.77	High	3.74	High	3.86	High
Grand Mean	3.77	High	3.71	High	3.81	High

Tools and equipment were rated High across the three qualifications, with grand means of 3.77 for adequacy, 3.71 for availability, and 3.81 for usability. Cookery returned the lowest sub-means of the three, and it is the only qualification in which any item fell to the Moderate band: the blender, microwave, crockery, and condiments table. These four are precisely the items associated with plated presentation, portioning, and service simulation rather than with basic heat application, so the shortfall is concentrated in the competencies that distinguish institutional cookery from domestic cooking. Bread and Pastry Production, which returned the highest sub-means, is also the qualification in which learners scored highest in Table 2, a correspondence worth noting even though the design does not permit a causal claim.

A second regularity runs through the table. Availability was rated below adequacy for almost every item, while usability was rated above both. Respondents thus report that the tools on hand work well, but that fewer of them are on hand at any given moment than the programme requires. This is a distribution and maintenance issue rather than a procurement failure, and it is consistent with Rusiana and Flores (2019), who found tools and equipment falling short of qualification specifications, and with Albarico (2014), who reported provision insufficient for enrolment size. Where equipment must be shared across a class, individual hands-on practice contracts, which offers a plausible route from these ratings to the Average mastery documented earlier and echoes Mañanita (2021) on the link between utilisation and performance.

CONCLUSION

The TVL-Home Economics strand in the six participating schools is well supplied and unevenly staffed. Instructional materials and assessment tools were rated Very High on adequacy, availability, and usability; physical facilities, tools, and equipment were rated High; and 174 of 190 enrolled learners completed the strand, a graduation rate of 91.58%. Against this, half of the teachers held no qualification beyond the baccalaureate, seven of ten had taught in the track for fewer than five years, seven of ten held no Trainer's Methodology certificate, and eight of ten had received no departmental training relevant to the strand, while five of six administrators had no exposure to technical-vocational training and only one specialised in Home Economics. Learner achievement was Average in all three sub-tests, with an overall MPS of 41.20% against a target of 75%.

Taken together, these results indicate that material provision has outpaced human-resource development. Where resources approach the ceiling of the rating scale and mastery remains a third below target, the binding constraint on implementation is no longer supply but the capacity to convert supply into competency-based instruction. The two exceptions to the favourable resource picture reinforce rather than qualify this reading: the TVL office, the only indicator rated Low, and the Cookery items rated Moderate

are both matters of programme-specific provision within schools that are otherwise adequately equipped. High completion alongside average mastery further indicates that graduation rate should not be read as an indicator of programme effectiveness in this strand.

Four courses of action follow directly from the findings. First, because trade certification is universal among the teachers while Trainer's Methodology certification is held by only three of ten, divisions should fund Trainer's Methodology certification and specialisation-matched pedagogical training as the first call on TVL professional development funds, ahead of further procurement. Second, because administrator specialisation lies almost entirely outside the technical-vocational field, schools should establish technical supervision arrangements that draw on certified Home Economics practitioners, whether through a designated master teacher, cross-school observation, or industry partnership, so that laboratory instruction is evaluated against competency standards rather than generic teaching criteria. Third, because the strand operates without dedicated workspace, schools should designate and equip a TVL office for tool security, laboratory preparation, and competency record-keeping. Fourth, because learners reported bearing laboratory costs and the Cookery items associated with plating and service rated lowest, schools should provide practical-work consumables from school funds under a protected annual budget line, with Cookery service equipment prioritised in the annual procurement plan.

Two limitations bound these conclusions. The resource findings rest on the perceptions of sixteen respondents in six schools in one division and are not generalisable beyond that setting, and the instruments were adopted without separate validation or reliability testing in the present sample. Future research should verify perceived adequacy against physical inventory audits, test the relationship between Trainer's Methodology certification and learner mastery across a larger sample of schools, and track whether Average mastery at exit translates into reduced national certification pass rates.

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