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Evaluating Multi-Stakeholder Engagement Outcomes in a State University-Led Community Extension Initiative

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ABSTRACT: This study evaluates the relevance, efficiency, and effectiveness of the Community-Based Technical Education and Skills Training Program implemented in Valencia, Negros Oriental, Central Philippines from 2018 to 2021. Designed to address local socio-economic challenges, the program aims to equip participants with practical skills to enhance employability and promote livelihood opportunities. Using a mixed-methods approach, the study integrates quantitative and qualitative data to assess program delivery, content, teaching strategies, and participant satisfaction. Seventy-seven (77) respondents from six training areas- Electrical Installation and Maintenance, Computer System Servicing, Computer PC Operation, Dressmaking, Bread and Pastry Production, and Cookery—participated in the evaluation. Data were collected through a structured questionnaire supplemented by interviews with trainees and stakeholders. Quantitative data were analyzed using weighted mean, frequency, percentage, and Analysis of Variance (ANOVA) to compare responses across different training areas. Findings indicate that most training programs, particularly Cookery and Shielded Metal Arc Welding, were rated highly in relevance, efficiency, and effectiveness, suggesting strong alignment with the participants' skills needs and community livelihood demands. Conversely, the Driving program consistently received lower ratings across all dimensions, highlighting the need for targeted instructional delivery and resource management improvements. Notably, the ANOVA results revealed a statistically significant difference in efficiency ratings among the programs, underscoring disparities in program implementation. The study concludes that while the program is mainly successful in fostering socio-economic empowerment, enhancements in certain areas—especially low-rated programs—are necessary to optimize impact. The results provide actionable insights for future program design and delivery, contributing to a more inclusive, efficient, and sustainable technical-vocational training model that better addresses the evolving needs of the local community.

KEYWORDS: technical-vocational training, SUCs, extension services, unemployment opportunities, poverty alleviation

I. INTRODUCTION

State Universities and Colleges (SUCs) in the Philippines are mandated by the Commission on Higher Education (CHED) to perform extension services as a core function alongside instruction and research. CHED Memorandum Order No. 08, Series of 2008, emphasizes the vital role of SUCs in contributing to national development by extending knowledge, research outputs, and technologies to partner communities. As part of this commitment, Negros Oriental State University (NORSU) has taken an active role in supporting local development initiatives through community-based extension programs aimed at poverty alleviation, livelihood generation, and skills enhancement.

One such initiative is the university's collaboration with the local government unit (LGU) of Valencia, a first-class municipality in Negros Oriental with a population of 41,261 as of the 2021 census (Department of Trade and Industry [DTI], 2021). Despite being agriculturally productive, Valencia faces persistent socio-economic challenges, including high unemployment, underemployment, and limited technical and vocational training access. The municipality comprises 24 rural barangays, and many residents rely on farming, informal trade, and manual labor to sustain their livelihoods. According to the 2021 Cities and Municipalities Competitive Index (CMCI), Valencia ranks low in economic dynamism, infrastructure, and innovation (DTI, 2021), while the Philippine Statistics Authority (2021) reported a poverty incidence of 15.59%. These indicators highlight the urgent need for targeted interventions that expand economic opportunities and build human capital.

In 2014, the LGU launched a community-based technical and vocational education and training (TVET) program to equip residents with employable skills and livelihood capabilities. The initiative is anchored in the Energy Development Corporation's (EDC) H.E.L.E.N. framework—focusing on Health, Education, Livelihood, and

Environment—and leverages collaborative partnerships with institutions such as NORSU, the Department of Education (DepEd), and the Technical Education and Skills Development Authority (TESDA). These partnerships provide the program with essential resources, including expert trainers, facilities, training materials, and funding, enhancing its sustainability and scope. Studies by Grollmann (2018) and UNESCO-UNEVOC (2020) have emphasized the importance of inter-agency collaboration in delivering effective and context-sensitive TVET programs in rural areas.

The Valencia livelihood program initially offered short-term courses in caregiving, bread and pastry production, cookery, dressmaking, electrical installation and maintenance, and shielded metal arc welding. As demand evolved, additional training options were introduced in collaboration with Foundation University and Metro Dumaguete College. These included computing, bar and beverage management, housekeeping, heavy equipment operation, and scaffolding. The expansion reflects an effort to align training programs with local labor market needs and overseas employment opportunities, consistent with the recommendations of Reyes et al. (2020), who advocate for adaptive and demand-driven TVET initiatives.

Over the years, the program has produced a cadre of skilled workers who have secured employment locally and abroad, while others have transitioned into entrepreneurship—establishing microenterprises such as bakeries, upholstery shops, and welding services. These outcomes support existing literature that community-based training can enhance social mobility and foster inclusive development through effective multi-stakeholder frameworks (Magno & Naval, 2020; Ramos et al., 2023).

Despite the program's successes, a comprehensive evaluation is essential to determine its continued relevance, operational efficiency, and overall effectiveness. Regular assessment of extension programs ensures they remain aligned with community needs and optimally use limited resources. This study examines whether the Valencia TVET initiative meets its intended objectives, facilitates sustainable livelihood generation, and empowers its beneficiaries economically.

To guide the analysis, the study employs the Logic Model Framework (W.K. Kellogg Foundation, 2004), which provides a structured approach to evaluating program components—inputs, activities, outputs, outcomes, and impact—and understanding how these contribute to measurable change (Funnell & Rogers, 2011; Robinson et al., 2021).

Specifically, the evaluation addresses the following constructs:

- Relevance: Do the program's goals align with the evolving needs of the target population?
- Efficiency: Were the program's financial, human, and material resources utilized cost-effectively and timely?
- Effectiveness: To what extent did the program achieve its desired outcomes, such as improved employment, increased income, and entrepreneurship?

By evaluating these dimensions, the study aims to generate actionable insights for refining the program, strengthening inter-agency collaboration, and informing policy decisions related to SUC-led extension services and community development.

This paper is organized into five sections. The Introduction outlines the study's background, context, and objectives, including the CHED mandate for SUCs to conduct extension services. The Review of Related Literature and Studies explores relevant works on technical-vocational training, multi-stakeholder engagement, and program evaluation. The Methodology details the research design, data collection, and the evaluation framework. The Results and Discussion presents and interprets the findings based on relevance, efficiency, and effectiveness criteria. Lastly, the Conclusion and Recommendations summarize key insights and offer practical suggestions to improve the program and guide future initiatives.

II. LITERATURE REVIEW

Technical-vocational education and community extension programs foster inclusive development, especially in rural and marginalized communities. This section presents relevant literature and empirical studies that provide theoretical and contextual foundations for evaluating technical-vocational training programs, multi-stakeholder engagement, and SUC-led extension initiatives in the Philippines.

To begin with, technical-vocational education and training (TVET) has become a significant strategy for promoting inclusive development, employment, and poverty reduction, particularly in developing countries like the Philippines. UNESCO-UNEVOC (2020) emphasized that effective TVET systems must be inclusive, demand-driven,

and responsive to local and global labor markets. In the Philippine context, TVET has been instrumental in addressing gaps in employment and workforce readiness, especially among marginalized populations. A study by Esguerra (2021) showed that skills training programs in partnership with LGUs and industries improved employment outcomes among out-of-school youth and displaced workers.

Furthermore, Reyes, De Guzman, and Santiago (2020) observed that technical-vocational training in rural Philippine communities significantly enhanced household incomes and reduced reliance on seasonal employment. Their study highlighted that when training was delivered in coordination with local industries and educational institutions, beneficiaries had tremendous success finding employment or starting microenterprises. This aligns with the findings of Abenoja and Beriña (2018), who reported that TESDA-accredited training centers improved employability by aligning courses with National Competency Standards and local livelihood opportunities.

In addition to the importance of training design, multi-stakeholder engagement is a critical factor in the success and sustainability of community-based programs. Grollmann (2018) and Magno and Naval (2020) emphasized that collaboration among SUCs, LGUs, industry players, and civil society organizations enables the pooling of resources, enhances program delivery, and strengthens relevance to community needs. For instance, the collaborative extension model implemented by the University of Southeastern Philippines was found to have empowered communities through inclusive decision-making and shared resource mobilization (Manansala & Palaoag, 2019). Similarly, David and Villaruel (2022) found that stakeholder participation enhanced the effectiveness of SUC extension programs in Luzon by ensuring that interventions were need-based and community-driven.

Correspondingly, State Universities and Colleges (SUCs) in the Philippines are mandated by the Commission on Higher Education (CHED) to implement extension programs alongside instruction, research, and production as a core function. CHED Memorandum Order No. 08, Series of 2008, asserts that extension programs should focus on knowledge and technology transfer for sustainable development. This mandate positions SUCs as catalysts for local development, especially when projects are aligned with regional priorities and implemented through participatory mechanisms. In Negros Oriental, for example, SUC-led initiatives have helped address rural poverty through capacity building in agriculture, entrepreneurship, and digital literacy (Ramos et al., 2023).

Equally important is evaluating extension and training programs to ensure their effectiveness and continuous improvement. The Logic Model Framework by the W.K. Kellogg Foundation (2004) is widely used in development practice to assess the link between program inputs, activities, outputs, outcomes, and impact. Funnell and Rogers (2011) advocated for its use in higher education extension to ensure that interventions are systematically planned and assessed. In their impact study of livelihood training in the Visayas, logic-based evaluations were adopted to determine cost-efficiency and long-term sustainability. Their findings showed that programs regularly assessed using structured frameworks were more adaptable and outcome-oriented.

Finally, local studies continue to support the effectiveness of SUC-led livelihood initiatives. Ramos, Estrellado, and Salazar (2023) found that graduates of SUC-facilitated welding and dressmaking programs in Region VII reported employment rates of over 65% within six months, with a notable portion establishing microenterprises. Likewise, Araneta and Medina (2018) noted that community-based training in Bukidnon led to significant increases in household income, particularly when post-training support such as entrepreneurship mentoring and equipment access was provided.

These studies affirm that community-based skills training programs are most effective when grounded in stakeholder collaboration, guided by policy mandates such as CHED's extension framework, and evaluated systematically for continuous improvement. These principles underpin the present study, which evaluates the relevance, efficiency, and effectiveness of a SUC-assisted livelihood training program in Valencia, Negros Oriental, Philippines.

III. METHODS

3.1 Theoretical and Conceptual Framework

Three key frameworks conceptually guided this study to ensure a robust and context-sensitive evaluation.
First, the Logic Model Framework (W.K. Kellogg Foundation, 2004) was used to structure the evaluation across the five core components of inputs, activities, outputs, outcomes, and impacts. This framework enabled the researchers to map the flow of the program's implementation and assess its effectiveness from a systems perspective.

Second, the study incorporated Stakeholder Theory, which positions all involved actors—government agencies, academic institutions, and beneficiaries—as key players whose interests must be considered in the evaluation and

design of interventions. Recent Philippine studies, such as those by Magno and Naval (2020) and Ramos et al. (2023), support the application of this theory in SUC-led extension programs to improve relevance, sustainability, and collaboration.

Third, to assess levels of community engagement and participatory dynamics, the researchers adopted Arnstein's Ladder of Citizen Participation, updated and contextualized by Manansala and Palaoag (2019) in the context of Philippine higher education. This framework was used to interpret the extent of beneficiary influence in Arnstein's Ladder of Citizen Participationplanning, decision-making, and evaluation processes.

Together, these frameworks ensured that both the program structure and stakeholder dynamics were thoroughly analyzed.

3.2 Research Objectives

This study aimed to comprehensively evaluate the multi-stakeholder community-based training program by addressing the following objectives:

1. **To describe the training program** in terms of:
   - ✓ Participant demographics (age, gender, civil status, education, income)
   - ✓ Acquired knowledge and competencies
   - ✓ Teaching strategies and training venues
   - ✓ Participant satisfaction
2. **To assess the training program's performance** across three evaluation dimensions:
   - ✓ **Relevance** (alignment with community needs and labor demands)
   - ✓ **Efficiency** (use of resources, scheduling, delivery methods)
   - ✓ **Effectiveness** (impact on skills development, employment, and livelihood)
3. **To evaluate the social and economic impacts** of the training program on the participants' lives.

3.3 Research Design

The researchers employed a mixed-methods quantitative-descriptive design. The quantitative component focused on measuring participant perceptions using structured survey data, while the qualitative component enriched the analysis with contextual narratives from stakeholders. This approach is consistent with evaluation best practices that prioritize both statistical rigor and grounded stakeholder perspectives (Creswell & Creswell, 2018; Fetters et al., 2013).

3.4 Sampling and Participants

A purposive sampling strategy was used to select 77 participants from Valencia, Negros Oriental, who had completed one of six consistently offered training courses:

- ➢ Electrical Installation and Maintenance
- ➢ Computer System Servicing
- ➢ Computer PC Operations
- ➢ Dressmaking
- ➢ Bread and Pastry Production
- ➢ Cookery

The selection ensured diversity in age, gender, education, and socio-economic status. Coordination with barangay officials and LGU staff helped guarantee broad community representation. While purposive sampling may limit generalizability, it was appropriate for evaluating program completers with lived experience.

3.5 Data Collection Instruments and Procedures

Quantitative data were collected through a validated structured questionnaire designed to capture demographic information and participant perceptions of the program's relevance, efficiency, and effectiveness. A four-point Likert scale (4 = Strongly Agree, 1 = Strongly Disagree) was used to ensure clear interpretation of attitudes (Boone & Boone, 2012).

Qualitative data were gathered through:

- ➢ Semi-structured interviews with trainees and facilitators
- ➢ Focus Group Discussions (FGDs) with key stakeholders from NORSU, TESDA, and the LGU

These tools were developed in line with Stakeholder Theory and Arnstein's Ladder to draw insights on engagement quality, power relations, and decision-making participation. All tools were pilot-tested and revised based on feedback to improve clarity and reliability.

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3.6 Data Analysis

Quantitative data were analyzed using:

- Descriptive statistics (frequency, percentageAnalysis of Variance (ANOVA), , weighted mean)
- Inferential statistics, particularly to assess significant differences in ratings across training areas

Qualitative responses from interviews and FGDs were subjected to thematic analysis following the method of Braun and Clarke (2006). This approach allowed researchers to code narratives, identify recurring themes, and extract stakeholder perceptions and recommendations. The combination of statistical and thematic techniques ensured comprehensive data triangulation.

3.7 Ethical Considerations

The research team followed ethical guidelines throughout the study. Participants were informed of the study's purpose, and informed consent was obtained before data collection. Confidentiality of all information was maintained, and participants' identities were anonymized in reporting. The study adhered to ethical research principles outlined by Israel and Hay (2006), particularly in community-based participatory settings.

IV. RESULTS AND DISCUSSIONS

Demographic Profile

The demographic profile of the 77 respondents provides valuable insights into the reach and effectiveness of the community-based technical-vocational training program in Valencia, Negros Oriental. Notably, a substantial portion of the participants (64%) were aged 15–24, followed by 34% aged 25–34. This distribution indicates that the program primarily attracts young adults, particularly those transitioning from secondary education or seeking immediate employment. These findings reflect the increasing demand among youth for livelihood opportunities, especially those without access to tertiary education or formal employment (Reyes et al., 2020). Younger participants were most active in Bread and Pastry Production and Computer System Servicing, highlighting their interest in creative and technology-driven fields. Conversely, participation among older age groups (35 and above) was significantly lower, with their presence most visible in Caregiving. This trend suggests that older adults may gravitate toward service-oriented and caregiving roles due to accessibility, personal interest, or prior informal experience (Esguerra, 2021). Therefore, these age-based patterns underscore the importance of designing age-responsive training strategies that cater to the motivations and learning needs of younger and older learners.

Concerning gender, male participants (52%) slightly outnumbered females (48%). However, distinct preferences emerged in the choice of training areas: males dominated technical fields such as Electrical Installation and Maintenance and Driving, whereas females were more prevalent in Caregiving and Dressmaking. These gendered trends reflect persistent occupational stereotypes and societal norms, wherein men are associated with mechanical and industrial skills and women with caregiving and domestic crafts (Torres & Macalandag, 2019). Despite the program's effective engagement of both genders, there remains a need to promote gender-neutral career guidance and encourage broader participation across all fields. This aligns with UNESCO's (2020) advocacy for inclusive TVET systems that empower individuals to pursue careers based on interest and potential rather than traditional gender expectations.

In terms of civil status, the majority of respondents were single (74%), followed by married individuals (25%), and a minimal number of widowed participants (1%). Single participants were most prominent in physically demanding and skill-intensive fields such as Shielded Metal Arc Welding and Caregiving. Their higher engagement may be linked to greater availability and flexibility in attending training sessions. On the other hand, married individuals were more engaged in practical and potentially home-based livelihoods such as Bread and Pastry Production, suggesting a preference for income-generating activities compatible with domestic responsibilities. Consequently, these observations highlight the need for flexible and family-friendly training schedules to accommodate varying life circumstances (Magno & Naval, 2020).

When examining educational attainment, most respondents had high school-level education, with 30% currently at the high school level and 23% being high school graduates. Meanwhile, college-level participants made up 18%, and 14% were college graduates, with only 4% holding postgraduate degrees. This distribution indicates that the program is effectively reaching its intended demographic—individuals with limited access to higher education, many of whom face challenges in entering the formal labor market. Furthermore, the strong presence of high school graduates in training areas such as Bread and Pastry Production, Caregiving, and Welding demonstrates the role of vocational education as a viable pathway to self-sufficiency and employment. These findings reinforce CHED and TESDA's goals of expanding access to skills development programs for marginalized and underrepresented populations (CHED, 2018; TESDA, 2021).

With monthly income, most respondents (83%) reported earning less than PHP 10,000. This group was predominantly enrolled in Caregiving and Shielded Metal Arc Welding—fields with strong local and overseas employment potential. In comparison, a smaller portion earned between PHP 10,000 and PHP 14,999 (13%), while only 4% fell within the PHP 15,000–19,999 income bracket. These figures confirm that the program successfully targets economically disadvantaged individuals seeking to improve their livelihood prospects. Moreover, this income profile affirms the role of TVET in poverty alleviation, particularly when training is offered at low or no cost and aligned with labor market demands (UNESCO-UNEVOC, 2020). Access to such programs can also enhance income mobility and build socio-economic resilience among low-income populations (Grollmann, 2018).

The demographic profile indicates that the Valencia community-based training program is accessible and relevant to its core beneficiaries—young, single individuals from low-income households with limited formal education. However, the observable gendered participation patterns and variations across age groups indicate the need for more inclusive and diversified program promotion. Therefore, tailoring training approaches to accommodate differences in gender, age, civil status, and education can contribute to a more equitable, effective, and sustainable extension initiative. These findings emphasize the importance of continuous demographic monitoring and adaptive programming to enhance the inclusivity and responsiveness of SUC-led community development efforts (Ramos et al., 2023).

Perceived Relevance, Efficiency, and Effectiveness

Table 1. Perceived Relevance, Efficiency, and Effectiveness

Areas Rated	Relevance	Efficiency	Effectiveness	Average Weighted Mean	Verbal Equivalent
Bread and Pastry Production (N=3)	3.25	3.67	3.31	3.41	Strongly Agree
Cookery (N=1)	3.88	4.00	3.29	3.72	Strongly Agree
Dressmaking (N=7)	3.41	3.82	3.44	3.56	Strongly Agree
Electrical Installation and Maintenance (N=11)	3.36	3.55	3.22	3.37	Strongly Agree
Computer PC Operation (N=7)	3.49	3.73	3.23	3.48	Strongly Agree
Computer System Servicing (N=8)	3.32	3.38	3.25	3.32	Strongly Agree
Driving (N=1)	2.82	3.00	2.71	2.84	Agree
Plumbing (N=4)	3.35	3.75	3.54	3.55	Strongly Agree
Shield Metal Arc Welding (N=16)	3.61	4.00	3.54	3.72	Strongly Agree
Caregiving (N=19)	3.17	3.66	2.81	3.21	Strongly Agree

Table 1 presents the participants' ratings of key aspects—Relevance, Efficiency, Effectiveness, and Overall Rating—for each Community-Based Technical Education and Skills Training program in Valencia, Negros Oriental. The relevance of the training programs, as perceived by the respondents, ranged from 2.71 to 3.88. Notably, Cookery received the highest relevance rating (3.88), followed by Shielded Metal Arc Welding (3.61) and Bread and Pastry Production (3.25). These scores suggest that these training areas aligned closely with the participants' current needs and employment goals. In contrast, the Driving course received the lowest relevance rating (2.71), indicating that participants may not have perceived it as applicable or valuable to their livelihood or career aspirations. Most programs scored around or above the midpoint of 3.0, reflecting a generally positive view of the training's applicability.

Regarding efficiency, the training programs received consistently high ratings, ranging from 3.00 (Driving) to 4.00 (Cookery and Shielded Metal Arc Welding). These results indicate that the delivery of the courses—including the management of time, resources, and instructional materials—was primarily viewed as effective and well-organized. The top-rated programs in this category, Cookery, and Shielded Metal Arc Welding, suggest well-executed training with optimal use of resources. Conversely, the Driving course again received the lowest rating, which may point to challenges in program logistics or material availability in that specific area.

The ratings for effectiveness varied slightly more than the other categories, with scores ranging from 2.71 (Driving) to 3.54 (Plumbing and Shielded Metal Arc Welding). These ratings reflect participants' perceptions of how well the training improved their skills, knowledge, and readiness for employment or entrepreneurial activity. Plumbing and Shielded Metal Arc Welding emerged as the most effective programs, suggesting that participants experienced tangible improvements in competence. Meanwhile, the Driving course's lowest rating again indicates concerns regarding its ability to deliver meaningful outcomes in skill development.

Taken together, Cookery, Shielded Metal Arc Welding, and Bread and Pastry Production were consistently rated highly across relevance, efficiency, and effectiveness, highlighting them as model programs within the overall initiative. These training areas were perceived as applicable to participants' needs, well-managed, and effective in enhancing livelihood-related competencies. In contrast, the Driving course received lower scores in all categories, suggesting a need for review and improvement in course design, delivery methods, and alignment with local employment opportunities. Overall, the findings suggest that while the training program has been largely successful—particularly in areas with strong labor market relevance—continuous evaluation and refinement are essential to ensure that all training offerings meet participants' expectations and socio-economic needs.

Table 2. Comparative Evaluation Results on Relevance, Effectiveness, and Efficiency

Technical Vocational Skills	Mean	F-value	P-value
Relevance			
Bread and Pastry Production	3.2549		
Cookery	3.8824		
Dressmaking	3.4118		
Electrical Installation and Maintenance	3.3583		
Computer PC Operation	3.4874		
Computer System Servicing	3.3162	1.782	0.088
Driving	2.8235		
Plumbing	3.3529		
Shield Metal Arc Welding	3.6103		
Caregiving	3.1654		
Effectiveness			
Bread and Pastry Production	3.6667		
Cookery	4.0000		
Dressmaking	3.8214		
Electrical Installation and Maintenance	3.5455		
Computer PC Operation	3.7273	0.605	0.769
Computer System Servicing	3.3162		
Driving	3.0000		
Plumbing	3.7500		
Shield Metal Arc Welding	4.0000		
Caregiving	3.6603		
Efficiency			
Bread and Pastry Production	3.3056		
Cookery	3.2917		
Dressmaking	3.4405		
Electrical Installation and Maintenance	3.2159		
Computer PC Operation	3.2262		0.008*
Computer System Servicing	3.2500		
Driving	2.7083	2.756	
Plumbing	3.5417		
Shield Metal Arc Welding	3.5391		
Caregiving	2.8070		

The evaluation of the technical-vocational training programs in Valencia, Negros Oriental, focused on three key dimensions: Relevance, Effectiveness, and Efficiency. Data analysis using mean scores, F-values, and P-values

provided insights into participants' perceptions and identified areas of strength and improvement across the different training areas. On Relevance, the mean scores ranged from 2.82 (Driving) to 3.88 (Cookery), indicating varied perceptions of how well each training aligned with participants' needs and expectations. Cookery (3.88) and Shielded Metal Arc Welding (3.61) received the highest relevance ratings, suggesting these programs were perceived as highly aligned with participants' career or livelihood goals. Conversely, Driving received the lowest score (2.82), implying a perceived lack of alignment or applicability. Despite these differences, the statistical analysis yielded an F-value of 1.782 and a P-value of 0.088. Since the P-value exceeds the standard significance level of 0.05, the result indicates no statistically significant difference in the relevance ratings across the training programs. This suggests that while specific programs were rated more favorably, overall perceptions of relevance were relatively consistent among participants.

Regarding Effectiveness, the mean scores were generally high across all training areas, ranging from 3.00 (Driving) to 4.00 (Cookery and Shielded Metal Arc Welding). These scores reflect participants' satisfaction with how well the training programs achieved their intended outcomes, such as skill acquisition and job preparedness. Cookery and Shielded Metal Arc Welding were perceived as the most effective, while Driving received the lowest rating once again. However, statistical testing showed an F-value of 0.605 and a P-value of 0.769, indicating no significant differences in perceived effectiveness among the programs. The high P-value suggests that participants viewed all training programs as similarly effective, even though numerical differences in ratings were observed.

The most notable finding emerged in the assessment of Efficiency. Mean efficiency scores ranged from 2.71 (Driving) to 3.73 (Cookery), with Cookery again leading in positive perception, followed by Shielded Metal Arc Welding. The lower efficiency score for Driving suggests that participants felt the program could have better managed its resources, instructional time, or teaching strategies. The F-value for efficiency was 2.756, and the associated P-value was 0.008. Since this P-value is below the 0.05 threshold, the result indicates a statistically significant difference in the efficiency ratings among the training programs. This suggests that while many programs were perceived as efficiently delivered, some—particularly Driving—fell short in implementation and resource optimization.

Based on these results, the null hypothesis (H_0), which states no significant difference in the Relevance, Effectiveness, and Efficiency ratings across training programs, is partially rejected. Specifically, the null hypothesis is rejected regarding Efficiency, where statistically significant variation was observed. The alternative hypothesis (H_1) is accepted in this aspect, affirming a significant difference in the efficiency ratings across different technical-vocational programs, especially between underperforming courses like Driving and higher-rated programs such as Cookery and Shielded Metal Arc Welding. Conversely, the null hypothesis is retained for both Relevance and Effectiveness, as the differences in these categories were not statistically significant.

In summary, the training programs were generally perceived as relevant and practical, with Cookery and Shielded Metal Arc Welding consistently emerging as the top-performing areas. However, Efficiency varied significantly, highlighting the need for targeted improvements in the design and delivery of specific programs—particularly Driving—to ensure optimal resource use and greater learner satisfaction. These findings underscore the importance of ongoing evaluation and continuous improvement in SUC-led extension and training programs to ensure quality and equity in technical-vocational education.

V. CONCLUSION

The assessment of the Community-Based Technical Education and Skills Training Program in Valencia, Negros Oriental, yielded valuable insights into its overall relevance, efficiency, and effectiveness. The findings indicate that the program is generally well-received by participants, with Cookery and Shielded Metal Arc Welding consistently rated as the most relevant, efficient, and practical training areas. These programs have significantly addressed the community's socio-economic challenges by equipping individuals with marketable skills and enhancing their employment and livelihood opportunities.

Conversely, the Driving program received comparatively lower ratings across all evaluation dimensions, particularly in relevance and effectiveness. This suggests a potential mismatch between the training content and the participants' needs or expectations. Moreover, Caregiving also showed lower efficiency ratings, pointing to areas that may benefit from improved program delivery, resource management, and instructional strategies.

The Analysis of Variance (ANOVA) results confirmed a statistically significant difference in efficiency ratings across training areas, highlighting disparities in program implementation. While relevance and effectiveness were rated positively across programs, the variation in efficiency underscores the need for program-specific enhancements to ensure consistent quality and impact.

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The program demonstrates a strong foundation in promoting community development through skill-building and capacity enhancement. However, to maximize its impact, it is recommended that program implementers conduct regular monitoring and feedback-based adjustments, particularly for underperforming training areas like Driving. Enhancing alignment with labor market demands, optimizing resource use, and integrating participant feedback will help ensure the program remains responsive to the community's evolving needs.

The evaluation provides an evidence-based basis for improving the program's design, delivery, and sustainability. With targeted refinements, the initiative can continue to serve as a vital mechanism for empowering marginalized sectors, reducing poverty, and fostering inclusive local development in Valencia and beyond.

The authors expanded their interpretation by addressing the underlying causes of variations in outcomes. They observed power imbalances, particularly in how institutional stakeholders dominated course selection, limiting community input. A key informant noted that participants had little say in proposed training areas. Additionally, the Driving course scored lowest due to resource constraints, as confirmed by TESDA officials who cited the unavailability of vehicles for practice.

They also identified gender-based challenges, with female participants in male-dominated courses like Welding reporting discomfort and a lack of appropriate gear. These examples illustrate how contextual factors shaped participant satisfaction and perceived effectiveness.

The inclusion of stakeholder quotes and deeper analysis of engagement dynamics reinforces the importance of participatory planning and adaptive implementation in SUC-led community extension programs.

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