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## **Bridging the Skills Gap: Integrating Vocational and Technical education in Consumer Science Education Curriculum at the University of Eswatini**

**By**

**Molyn Mpofu and <sup>1</sup>Dumisa C. Mabuza**

### **Abstract**

This study is follow up research from a stakeholder consultative seminar which examined the checks and balances on performance of the degree programme in relation to stakeholder expectations and level of meeting the needs of the teaching of Consumer Sciences in schools. The mini-survey revealed strong stakeholder support for integrating vocational and technical education, prompting this research to explore how to bridge the identified gap. This qualitative study employed the descriptive research design. Purposive sampling was used to select a sample of 25 participants comprising ten (10) Consumer Science teachers who are alumni to the university, ten (10) undergraduate students enrolled in Consumer Science Education, three (3) industry personnel from sectors relevant to Consumer Science Education and two (2) policymakers. The findings of the study established that the first step taken by the department was the introduction of Foundations of Vocational and Technical Education, Vocational and Technical Consumer Science Curriculum Studies, Entrepreneurship and Business Planning and Innovation, Experimental Vocational and Technical Education. All the new courses are addressing the stakeholder concerns on the lack of vocational and entrepreneurial courses on the programme. Thus, they are expected to equip the teachers to be competent in both the Modern and Vocational Consumer Science Studies. The study concluded that the integration of vocational components into the Consumer Science Education curriculum without creating a new programme was more favourable; however, limited resources in terms of equipment and materials pose constraints to effective practical training. Recommendations were that the university should seek partnerships with the industry players and continue with stakeholder engagement for on-going feedback and improvements.

**Keywords:** Skills, Vocational and Technical education, Consumer Science Education, Modern Consumer Sciences, Stakeholders

## Introduction

The Consumer Science Education (COSE) programme at the University of Eswatini (UNESWA) is central to the preparation of teachers who teach Modern Consumer Science education in Eswatini secondary schools. The COSE programme has historically aimed to provide a comprehensive foundation in Consumer Science Education, encompassing areas such as Food and Nutrition, Textile and Apparel Management, and Family Resources and Human Development. However, the growing recognition of the importance of vocational and entrepreneurial education through stakeholder consultations in Eswatini necessitated a re-evaluation of the programme's current structure and content. The government has increasingly emphasised the need to equip students with practical skills that can lead to self-reliance and economic development (Henderson & Ross, 2025). This emphasis is reflected in the expansion of Technical and Vocational Education and Training (TVET) and the introduction of Pre-Vocational Education (PVE) in secondary schools in the country.

The advocacy for PVE is due to the fact that vocationalisation involves strengthening the technical and practical components of the curriculum to enhance employability and entrepreneurial potential among graduates. According to (Allais, 2022), vocational education plays a crucial role in equipping students with hands-on skills that improve their labour market outcomes and support national economic development. This aligns with the Eswatini national goals of promoting self-reliance and reducing unemployment.

In light of this, stakeholder consultations were initiated by the Department of Consumer Science at UNESWA in response to several critical factors identified by stakeholders. During the consultative seminar, the department was commended for its proactive efforts in addressing the training needs of Consumer Science Education teachers. This recognition stemmed from the department's swift response to previous concerns about the government emphasis on strengthening Technical and Vocational

Education and Training (TVET) and entrepreneurial studies. The department introduced three new vocational education courses. Additionally, the University included Pre-Vocational subjects in its admission criteria in recognition of the importance of PVE (Zwane & Mpofu, 2022). This policy change is likely to lead to increased enrolment in PVE programmes at the secondary level, thus, further increasing the demand for qualified teachers. In light of these developments, a stakeholder consultation was deemed necessary to ensure that the COSE programme remains relevant, responsive and aligned with the evolving needs of the education system and the broader societal context in Eswatini.

Mpofu and Nyoni (2022) established that the number of trained PVE teachers was gradually declining due to teacher turnover emanating from transfers or promotions, resignations, retirements or deaths. The study further noted that the current untrained PVE teachers who replaced the first cohort were frustrated because they were not empowered with the relevant skills for teaching the PVE programme. This demographic shift has created an urgent need to train a new generation of educators who are qualified to teach both PVE and Modern Consumer Science subjects. This has also been aggravated by UNESWA's decision to approve the inclusion of PVE subjects in its admission criteria, which is anticipated to influence the increase in enrolments in PVE programmes.

Despite global trends advocating for vocational education, little research has been conducted on how Consumer Science Education in Eswatini can be further enhanced to align with labour market needs. Several, studies indicate that countries that successfully integrated vocational education within their higher education systems experience higher youth employment rates and stronger linkages between education and industry (Sheth & Shome, 2025). In many African countries, including Eswatini, challenges such as inadequate industry collaboration, limited access to modern equipment and a lack of structured internship programmes hinder the successful strengthening of vocational elements within university education (Li & Pilz, 2023).

Therefore, understanding stakeholder perspectives on improving the vocational aspects of Consumer Science Education is critical for ensuring that curriculum revisions address the real needs of students, employers and the broader economy.

### **Statement of the Problem**

During engagement with stakeholders through a consultative seminar, there was a request from the Pre Vocational education panel to train vocational teachers which has necessitated the revision of the BSc. COSE programme to train teachers that would be capable of handling both the Pre-Voc. and Morden Consumer Science subjects. While practical training has always been part of the Consumer Science Education curriculum at the University of Eswatini, there is a need to enhance its vocational aspects to meet evolving labour market demands. Employers have reported a skills gap in graduates, particularly in industry-specific competencies and entrepreneurial preparedness. Additionally, students expressed concerns over the adequacy of their training in preparing them for employment and self-sufficiency. Without strengthening vocational components, the programme risks producing graduates who may struggle to transition smoothly into the workforce. This study seeks to explore stakeholder perspectives on how the curriculum can be restructured to enhance vocational training, improve graduate employability and promote entrepreneurship.

### **Objectives**

- 1 To explore the expectations of employers, educators, students and policymakers regarding the enhancement of vocational skills integration in the curriculum.
- 2 To identify challenges and opportunities associated with strengthening vocational elements in Consumer Science Education.
- 3 To propose recommendations for enhancing the curriculum to improve graduate employability and entrepreneurial readiness.

## **Theoretical Framework**

This study is grounded in the experiential learning theory, which emphasises learning through practical experience. Kolb's (1984) model of experiential learning highlights the importance of active engagement in skill development (Morris, 2020). The framework posits that knowledge and skills are primarily acquired through direct experience, rather than solely through traditional instruction. Experiential learning emphasises the learner's active role in constructing their own understanding through a process of engagement, reflection and application. This highlights the need for the COSE programme to provide student teachers with opportunities to actively participate in the cyclical process of experiencing, reflecting, conceptualising and applying their knowledge. This approach is crucial for developing the practical skills and pedagogical competencies necessary for effective teaching in the field of Consumer Science

## **Methodology**

### **Research Design**

A descriptive research design was appropriate for this study as it allowed for an in-depth understanding insights, experiences and expectations of stakeholders regarding vocational training within the university curriculum (Source). This research design facilitated rich, descriptive findings that provided a comprehensive understanding of how vocational training could be effectively integrated into Consumer Science Education at the University of Eswatini.

### **Population, Sample and Sampling Technique**

The population of this study comprised Consumer Science Education teachers, students, industry employers and policymakers involved in curriculum development. A purposive sampling technique was used to select participants who have direct experience with or knowledge of the Consumer Science Education curriculum and its

vocational aspects. The sample included ten (10) Consumer Science teachers involved in teaching and curriculum development, ten (10) undergraduate students enrolled in Consumer Science Education, three (3) industry personnel from sectors relevant to Consumer Science and two (2) policymakers involved in education policy and curriculum reform.

### **Data Collection Instruments**

This study employed qualitative research, specifically a phenomenological approach to explore the lived experiences and perceptions of stakeholders regarding the vocationalisation of Consumer Science Education. Data were collected through Focus Group Discussions and Document Analysis.

### **Focus Group Discussions (FGDs)**

FGDs were conducted with Consumer Science teachers (Alumni of UNESWA), industry representatives, policymakers and current students to understand their experiences with the curriculum, practical training, vocational training in Consumer Science Education and career preparedness.

### **Document Analysis**

Relevant policy documents and curriculum outlines were reviewed to assess existing provisions for vocational training and identify gaps in the current curriculum.

### **Data Analysis**

Data from Focus Group Discussions and documents were analysed using the thematic analysis tool. It involved identifying, analysing and interpreting patterns of meaning within the qualitative data collected.

## **Findings and Discussion**

### **Expectations of employers, educators, students and policymakers regarding the enhancement of vocational skills integration in the curriculum**

#### **Stakeholder-Driven Curriculum Review**

The revision of the Consumer Science curriculum at the University of Eswatini was initiated in response to concerns raised by industry professionals and educators. Stakeholders highlighted the need for a more vocationally oriented approach to better prepare graduates for the evolving demands of the job market. One industry expert noted, "Graduates have theoretical knowledge, but they lack hands-on skills that make them competitive in the industry." Similarly, an educator emphasised, "We need to produce teachers who can teach both academic Consumer Science and vocational skills to meet the needs of high schools."

An educator concurred that, "The COSE programme needs to be revised to ensure it addresses both the theoretical and practical components essential for teaching PVE and Consumer Sciences." Participants acknowledged the need to equip educators with both theoretical knowledge and practical skills, ensuring they can effectively teach a combined curriculum.

Literature supports these concerns, that integrating vocational training into higher education enhances employability and economic adaptability (Mustajab & Irawan, 2023). Furthermore, Kolb's (1984) experiential learning theory emphasises the importance of practical engagement in skill development, reinforcing the necessity of this curriculum revision

#### **Curriculum Alignment with National Education Policies**

The policymakers expressed that curriculum changes align with national educational reform efforts aimed at equipping students with both academic knowledge and practical skills to meet the demands of a rapidly evolving job market. The shift towards vocational integration reflects a broader strategy to enhance employability

and address skills gaps within various sectors. Policymakers have emphasised the importance of ensuring that educational programmes remain relevant and responsive to national economic and social priorities. A policymaker noted that: *“We are ensuring that Consumer Science education is in line with broader national goals to enhance technical and vocational skills development.”*

Another policymaker explained that: *“The shift towards vocational training in Consumer Science is not isolated; it is part of a larger vision to equip students with relevant skills that can contribute to national development.”*

One teacher noted that: “Policies evolve over time and our curriculum must be flexible enough to adapt to changing priorities.”

Previous studies argue that vocational integration must be policy-driven to ensure sustainability (McGrath & Ramsarup, 2024). Therefore, aligning higher education curricula with national policies ensures long-term economic and social benefits. Stakeholders stressed the need for continuous evaluation to ensure that the vocationalisation of Consumer Science Education remains relevant to both national goals and industry needs.

## **Challenges and opportunities associated with strengthening vocational elements in Consumer Science Education**

### **Challenges in Implementation**

Despite the integration of vocational components, the study identified significant challenges in the implementation process. One curriculum developer explained, *“While we have updated the courses, there are still gaps in infrastructure and resources to support hands-on training.”* This aligns with the findings of (Nur et al., 2022), who argue that successful vocational education requires significant investment in facilities and industry partnerships.

### **Resource Constraints**

Stakeholders argued that without consistent access to consumable supplies, vocational education remains largely theoretical, defeating its purpose. Limited funding, consumables and infrastructure were cited as major barriers. One instructor stated, “We have introduced more practical components, but we lack the equipment needed to facilitate hands-on learning.”

An instructor remarked that: “Even when we do have equipment, we struggle to afford the materials needed for students to practice regularly.”

Funding constraints were also found to affect class sizes and student engagement in practical sessions. One lecturer explained, “Due to limited resources, we have to group many students together in practical sessions, which reduces hands-on time for each student.” Thus, overcrowded practical sessions diminish learning effectiveness, as students receive less individual attention and fewer opportunities for direct skill application. This finding aligns with Allais (2022), who notes that vocational programmes require substantial investment in tools, materials and training spaces. Strategic partnerships and alternative funding sources, such as grants and sponsorships, can significantly enhance the sustainability of vocational education programs.

### **Professional Development for Educators**

Teachers acknowledged the need for updating to effectively teach vocational components. Several instructors highlighted that while they are experts in theoretical with limited practical in Consumer Science education, they lack formal training in delivering vocational content. Teachers highlighted that, targeted professional development should be provided to both pre-service and in-service teachers. The UNESWA admission policy change, while potentially increasing the pool of students

interested in PVE, necessitates a corresponding increase in the supply of PVE qualified teachers.

One teacher noted that, “We were trained to teach theory and some practical concepts, but not at the level required for vocational instruction. We need specialized training in technical skills and industry applications.”

Another teacher expressed that, “We need structured and continuous professional development, not just once-off workshops.” This concern aligns with Mesuwini and Mokoena (2023) who found that vocational education teachers often struggle when they are transitioning from traditional academic teaching to hands-on skill training due to inadequate preparation. Sporadic training is ineffective in building long-term competency while on-going mentorship, peer learning and certification programmes yield better outcomes.

### **Student Reception and Preparedness**

Some students expressed concerns about the added vocational elements. One student remarked, “We expected more theory-based teaching, and now we are being introduced to more practical aspects, which require different learning approaches.” Some students, however, welcomed the change and viewed it as an opportunity to enhance their employability. One student shared, “At first, I was sceptical but now I see that the practical skills we are learning will be useful beyond teaching. It opens up more career options.” Vocational training enhances students’ career prospects and entrepreneurial capabilities (Mesuwini & Mokoena, 2024).

### **Uncertainty of Outcomes**

The stakeholders felt that, since the first cohort under the revised curriculum is currently in progress, its effectiveness will only be fully understood once the first graduates enter the workforce. An education policymaker commented, “*It is too early*

*to measure the success of this integration, but we anticipate a positive impact.*” In response to that, a lecturer pointed out that, “The benefits are already visible as evidenced by the students’ entrepreneurial projects.” Previous researches indicate that vocational education reforms require long-term assessment to determine their effectiveness and not only wait for the completion of the programme (Morris, 2020).

Despite these uncertainties, stakeholders remain optimistic. One high school principal remarked, *“If properly implemented, this change will revolutionize Consumer Science education by making it more relevant to students’ futures.”* Continued evaluation and adjustments will be necessary to ensure that the curriculum meets its intended objectives.

### **Recommendations for enhancing the curriculum to improve graduate employability and entrepreneurial readiness**

#### **Enhanced Entrepreneurial Training**

Regarding vocational and entrepreneurial competencies, stakeholders praised the inclusion of the entrepreneurship incubation course within the COSE programme but indicated further enhancements would be necessary. A participant remarked, “While the current entrepreneurship course is commendable, introducing additional training in business planning and innovation will further strengthen graduates’ abilities to establish their own enterprises.” This highlights a consensus on the need for more robust entrepreneurial training.

#### **Need for Industry Partnerships**

Many stakeholders emphasised the necessity of strong industry partnerships to enhance vocational training. One employer commented, *“We need collaboration between universities and businesses to provide students with real-world experiences.* Another industry representative elaborated on the benefits of such collaborations, stating, *“If students can spend time in actual workplaces, they will gain insights that cannot be taught in a classroom.”* This aligns with Setiawan, Bafadal, Supriyanto and

Hadi (2024)), who argue that exposure to industry settings promotes employability skills such as problem-solving, teamwork, and adaptability. By implication, internships and apprenticeships improve graduate readiness for the workforce.

Additionally, some employers noted that they would be more willing to participate if the university provided a framework for student placements. One employer suggested, "*The University should develop a formal internship programme with clear guidelines. Businesses need to understand what is expected of them before they can commit.*" This recommendation is in congruent with Mustajab and Irawan (2023) who found that structured internship models lead to more successful industry-academic partnerships.

To address these challenges, stakeholders recommended that the university actively seek partnerships with industries related to Consumer Science, such as textile manufacturing, food production and hospitality.

### **Addressing PVE Teacher Shortages**

The study also addressed the pressing issue of PVE teacher shortages. Stakeholders welcomed the department's introduction of three additional technical and vocational education courses. As one stakeholder commented, "With the aging population of PVE teachers, the department's move to introduce specialised courses will ensure a steady supply of qualified educators." Furthermore, the department highlighted that UNESWA's updated admission criteria, allowing for the inclusion of PVE subjects, would likely lead to increased PVE enrollment, reinforcing the need for competent educators in both fields.

Concerns about graduate employment prospects were also raised, with stakeholders cautioning against the potential consequences of introducing an additional qualification. One member warned, "If we add a separate qualification, it may flood the job market and worsen graduate unemployment." The department addressed this by integrating the required competencies into the existing COSE programme without

the risk of oversaturating the job market. The department's strategic decision to incorporate new competencies into the existing COSE programme, rather than creating a separate qualification, reflects a balanced approach that aims to enhance the programme's relevance while mitigating potential risks to graduate employment (Irwin et al., 2024).

### **Conclusion**

Significant strides were made by the Department of Consumer Science in aligning the COSE programme with stakeholder expectations and national educational priorities. Stakeholders acknowledged the department's responsiveness in addressing previous competency concerns and commended the integration of vocational and entrepreneurial elements into the curriculum. The addition of courses focused on entrepreneurship, business planning and innovation was widely supported as a means to enhance graduate employability and entrepreneurial readiness. Furthermore, stakeholders appreciated the efforts made by the department to mitigate PVE teacher shortages through targeted curriculum adjustments. The study concluded that although stakeholders recognised the importance of industry collaborations, challenges persisted in forming formal agreements and establishing structured internship programmes. The study further concludes that strategic efforts are needed to promote meaningful partnerships that enhance vocational training for Consumer Science graduates. The integration of vocational components into the curriculum was seen as a positive step; however, limited resources in terms of equipment and materials posed constraints to effective practical training. While some students expressed hesitance toward the vocational shift, others realised its potential benefits. Worth noting was that, facilitating a smooth transition would require targeted support through workshops, mentorship programmes and continuous student engagement. Ultimately, the successful implementation of vocational education in Consumer Science depends on sufficient resources, institutional backing and regular policy evaluations to ensure long-term sustainability and relevance in the evolving

educational domain. Hence, moving forward, the study concluded that the successful implementation of these resolutions will depend on continuous collaboration, resource allocation and periodic curriculum reviews to ensure on-going relevance and effectiveness.

### **Recommendations for Action**

- 1 Establish a National Consumer Science Industry Liaison Committee:** This committee should comprise representatives from relevant industries (hospitality, textiles, retail, small businesses, etc.), educators, policymakers and student representatives, to serve as a formal platform for on-going dialogue to understand evolving employer needs and expectations for vocational skills in Consumer Science graduates.
- 2 Identify Challenges and Opportunities: Invest in Practical Teacher Training and Resource Provision:** Prioritize providing Consumer Science educators with targeted training in relevant vocational skills and ensure access to the necessary equipment, tools, and materials for effective hands-on learning experiences within schools.
- 3 Propose Curriculum Enhancements: Integrate Mandatory Industry Internships or Attachments:** Make a structured period of practical work experience in relevant industries a compulsory component of the Consumer Science Education curriculum to provide students with real-world application of their skills and enhance their employability and understanding of entrepreneurial opportunities.

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