

THEMATIC PAPER: APPRENTICESHIP

South African vocational colleges' experiences delivering vocational learning programs using occupational standards

Naomi S. Alphonsus*

Institute for Post-School Studies, University of the Western Cape, Belville 7535, Cape Town, South Africa

ABSTRACT

Recent trends in international organizations' policy advice for improving technical and vocational education and training (TVET) delivery suggest occupational standards which capture broad work competencies to guide curriculum contents of learning programs. In 2012 South African educational reform introduced qualifications with intended curricula drawn from occupational standards for vocational and professional training. This article draws on research that investigated how teaching and learning staff used the officially intended curricula to develop and deliver programs. Two challenges were experienced in interpreting the regulatory documents for curriculum enactment, namely, a lack of basic knowledge and skills in regulatory documentation and sequencing of curriculum content with an overall confusion about notional hours allocated to module content. To address curriculum challenges, college experts added curriculum content, additional teaching and learning sessions, and reconfigured curriculum content. The research offers insights into curriculum content development and delivery for vocational learning programs based on occupational standards.

Key words: occupational standards, enacted curriculum, learning programs, work competencies

INTRODUCTION

South African policy objectives for technical and vocational education and training (TVET) emphasize the relevance of training to address a range of social and economic problems (Department of Higher Education and Training, 2013). In the last twenty years, trends in policy advice from international organizations (Fretwell *et al.*, 2001; OECD, 2010), inter alia the International Labour Organization (ILO), have suggested the development of occupational standards and profiles which capture broad work competencies that inform training programs (Aggarwal, 2020). A recent Organisation for Economic Cooperation and Development (OECD) manual (OECD, 2024) states as follows: "Occupational standards are recognized documents that define the skills, abilities and attitudes

that workers in an occupation must possess to effectively carry out their tasks". Similar to ILO and OECD proposals, South African policymakers introduced occupational qualifications with extensive advice to facilitate the development of occupational standards that are elaborated on in documents for intended curriculum and assessment criteria (QCTO, 2014). The study explored South African colleges' experiences with implementing curricula based on occupational standards and set forth mitigation strategies for colleges in other countries to guide curriculum content.

METHODS AND RESEARCH DESIGN

The article draws on data from research (Alphonsus, 2024) that initially identified 5 high performing

***Corresponding Author:**

Naomi S. Alphonsus, Institute for Post-School Studies, University of the Western Cape, Belville 7535, Cape Town, South Africa. Email: nalphonsus@gmail.com.

Received: 27 March 2025; Revised: 15 May 2025; Accepted: 19 May 2025

<https://doi.org/10.54844/vte.2025.0953>

 This is an open access article distributed under the terms of the Creative Commons Attribution-NonCommercial-ShareAlike 4.0 International License, which allows others to copy and redistribute the material in any medium or format non-commercially, as long as the author is credited and the new creations are licensed under the identical terms.

vocational colleges, based on the successful completion of learning programs in which students had received national certification to practice their trades. A sample of four successful colleges was drawn to represent urban and rural areas, as well as those privately and/or publicly funded. Fifteen semi-structured interviews were conducted, the Table 1 summarizes the number of each type of participant and the participant description.

Qualitative research project applied phenomenological study methods (Creswell, 2007) Data analysis was undertaken within a conceptual framework derived from "occupational capacity", a term that encapsulates two broad elements needed for the development of expertise to practice: that of specialized or systematically organized knowledge; and the social organization of work. Winch (2015) argued that an individual must possess systematically organized knowledge to exercise professional judgment and to be able to justify decision-making and actions in an occupation. In the German context, Winch (2010) identified two kinds of propositional knowledge: *Kenntnis* which refers to contingent knowledge and discrete propositional knowledge, and *Wissen* which refers to organized propositional knowledge.

Winch's explanation of professional judgment in occupational capacity is based on several types of knowledge (knowledge by acquaintance, practical knowledge, and disciplinary knowledge) all working together. The concept of inferentialism is used to show connections between bodies of knowledge in systematically organized knowledge and their relationship to practice. Winch (2013) holds that inferentialism within a systematic body of knowledge is a characteristic of an occupational practitioner.

The analysis of the interview data used the occupational capacity conceptual framework to find common themes among participants' experiences of the phenomenon—interpreting and translating intended curricula documents into enacted curricula. The common themes as synthesized descriptions "consist of 'what' they experienced and 'how' they experienced it" (Creswell, 2007). For this article the descriptions were analyzed by comparing with an understanding of systematically organized knowledge—the results section captures the essence of the participant's experiences. For example, one common theme described in detail by participants was how they wrestled with making connections in the curriculum between the development of knowledge (often referred to as theory) and practical skills in relation to the practice with a focus on how the student builds increasingly complex knowledge and skills—this concern is closely reflected much needed inferentialism needed for practice which is developed in systematically organized knowledge in the curriculum.

RESULTS

Three teaching and learning experts, one curriculum advisor, two lecturers and two work experience managers concurred that official occupational standards were either too broad or too specific to translate directly into enacted curriculum. Thus, the translation required occupational standards and module content interpretation by subject matter experts about content rationalization, additional content needed, and impractical content considering the resources available at colleges. While participants supported the move towards a qualification that combined theory (knowledge), practical skills, and work experience, challenges arose with regard to delivering the required embedded knowledge, abilities, and skills linked to work tasks, such as insufficient time for foundational knowledge and skills, and difficulties in sequencing curriculum content.

A teaching and learning expert illustrated the problem as follows: "So, they don't tell you, you need to do science, or you need to do math. There is no module assigned to that. But if you would look at the embedded knowledge inside the knowledge module—the learner will not be able to do the electrical calculations, the mechanical drawings for toolmaker if they do not have those four subjects [Mathematics, Science, Trade Theory and Mechanical Drawing], and you cannot incorporate that information into the specific learning fields, because then it will be really too much. The reason why I'm saying that is the timeframe is so short; there's no room to give the student all that information".

A third of the participants (three teaching and learning experts and two lecturers) complained that foundational knowledge and skills required to meet the learning outcomes were often missing from documents or referred to ambiguously as "embedded knowledge" without explaining how such knowledge was to be acquired.

An extract from the data below foregrounds a key difference between learning how to practice, and how practice itself occurs. Another teaching and learning expert describes how the separation of content from the work tasks performed in the occupation lacks the integration needed for teaching and learning processes: "So, the expectation, when you look at the document, it's as if these things are taught in silos. But in practice, we don't separate them. They are meant to occur at the same time. For example, how do you teach an apprentice to use a certain machine? In teaching that, that aspect, you cannot just teach how to use the machine. Because at the same time, this learner should actually produce certain components with this machine. So those aspects don't sit separately. They happen at the

Table 1: The number of each type of participant and the participant description

Number of participants	Type of participant with definition
3	Teaching and Learning Experts: Experienced occupational practitioner with extensive experience in program requirements, curriculum development and sequencing, management, the development of teaching staff, assessment and moderation, and working with companies for work experience placement.
4	Managers: oversees the introduction and implementation of vocational and professional qualifications on a single site or multiple sites and oversees that programs meet their regulatory content and assessment requirements
2	Work Experience Manager: Procures funding for and placement of students for their work experience at employers
1	Curriculum Advisor: Provides guidance for the development and sequencing of curriculum
2	Lecturers: Ensures delivery of and assessment of curriculum
1	Assessor Expert: National professional body member, experienced moderator and assessor of external summative assessment/trade test
2	Work Experience Trainer and Assessor Expert: Occupational practitioner and trainer for work experience

same time. So then on top of it, I'm teaching them the safety aspects. I'm teaching them the theory on that machine and I'm teaching them how to actually operate the machine and in operating during the process of operate, we integrate by them actually bringing a particular task that this learner is doing, and producing. So, at the end of the learning intervention, there is a practical component that sitting here and saying, right, so do you now understand how all these steps bring you to this point? But sometimes when you look at the document, how the things are structured, you would feel as if they are sitting in silos ... it takes a person who's had that experience to know ..."

In terms of the understanding of systematically organized knowledge as being connections between know-how and know-that, the participant explains that connections between knowledge and skills need to be made in enacted curricula to enable students to become occupational practitioners. As a result of the "siloed" approach in the intended curriculum document, a group of experienced teaching and learning experts is required to develop the enacted curriculum, thus defeating the purpose of regulatory documents that seek to provide curriculum content guidance for college teaching and learning in South Africa.

CONCLUSION

The article sets forth two challenges experienced in South African vocational college curriculum implementation. First, foundational knowledge and skills, and associated time allocations are not clearly defined in the curriculum documents. For instance, many colleges had added a pre-requisite foundational curriculum component, leading to an additional year of training before students could enter the learning program. Second, the process of sequencing the curriculum content was difficult because of the way content had been fragmented into different modules and much integration was needed. Curriculum documents

therefore had to rely on groups of experienced disciplinary experts to interpret curriculum requirements to deliver the program, and such experts were not always available to colleges or were expensive to procure. Colleges suggested that a list of experienced enacted curriculum experts be made available to colleges struggling with translating and sequencing curriculum from intended curriculum documents. While international education policy advice often suggests that occupational standards are a way to improve vocational education delivery, this may be challenging in poorly resourced national vocational education and training systems. This research found that even well-resourced vocational colleges in South Africa needed guidance for curriculum content development based on occupational standards.

DECLARATIONS

Acknowledgement
None.

Author contributions
Alphonsus NS: Conceptualization, Writing—Original draft, Writing—Review and Editing. The author has read and approved the final version of the manuscript.

Source of funding
This research received no external funding.

Ethical approval
Not applicable.

Informed consent
The participants were informed that the interview data were only used for research purposes, and their information would be anonymized when presenting the research result. Moreover, they are also allowed to stop the recording at any moment during the interview, and they can refuse to respond to any question asked during the review.

Conflict of interest

The author has no conflicts of interest to declare.

Data availability statement

No additional data.

REFERENCES

- Aggarwal, A. (2020). *ILO toolkit for quality apprenticeships volume 2: Guide for practitioners for developing, implementing, monitoring and evaluating apprenticeship programmes*. ILO.
- Alphonsus, N. S. (2024). Common practices emerging in ongoing and complete occupational learning programs. Quality Council for Trades & Occupations. Retrieved March 1, 2025, from <https://www.qcto.org.za/publications/%2c-policies/%2c-guidelines---forms.html>
- Creswell, J. W. (2007). *Qualitative inquiry and research design: Choosing among five approaches*. Sage.
- Department of Higher Education and Training. (2013). White paper for post-school training and education: Building an expanded, effective and integrated post-school system. Retrieved March. 1, 2025, from <https://www.gov.za/documents/white-paper-post-school-education-and-training-building-expanded-effective-and-integrated>
- Fretwell, D. H., Lewis, M. V., & Deji, A. (2001). A framework for defining and assessing occupational and training standards in developing countries. Retrieved March 1, 2025, from https://unevoc.unesco.org/e-forum/A_Framework_for_Defining_Training_Standards.pdf
- OECD. (2010). *Learning for jobs: Synthesis report of the OECD reviews of vocational education and training*. OECD.
- OECD. (2024, December 2). Support materials—agile occupational and training standards for responsive skills policies. OECD. Retrieved March 1, 2025, from https://www.oecd.org/en/publications/agile-occupational-and-training-standards-for-responsive-skills-policies_bacb5e4a-en/support-materials.html
- QCTO, & GIZ on behalf of the German Government. (2014). *Occupational qualifications development facilitator manual*. QCTO.
- Winch, C. (2010). *Dimensions of expertise a conceptual exploration of vocational knowledge*. Continuum International Publishing Group.
- Winch, C. (2013). Curriculum design and epistemic ascent. *Journal of Philosophy of Education*, 47(1), 128-146. <https://doi.org/10.1111/1467-9752.12006>
- Winch, C. (2015). Towards a framework for professional curriculum design. *Journal of Education and Work*, 28(2), 165-185. <https://doi.org/10.1080/13639080.2014.1001335>