

RESEARCH PAPER

Formalization of traditional apprenticeship content in Benin

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ABSTRACT

Apprenticeship is a form of vocational training based on an apprenticeship contract. This contract is an agreement whereby the owner of an industrial, commercial or agricultural enterprise, a craftsman, or a manufacturer undertakes to provide, or ensure the provision of systematic and comprehensive vocational training to an individual. In return, the apprentice agrees to follow instructions received and to carry out assigned tasks within the framework of his or her training. The master craftsman bears primary responsibility for the apprentice's training. As such, he determines training content and organizes the methods of transmitting professional know-how. In traditional apprenticeship, characterized by the absence of formalized pedagogical materials, training relies mainly on the professional skills of the master trainer. This leads to strong variability in training content from one trainer to another. The competencies acquired by the apprentice are therefore closely linked to the skill level of the master craftsman. Despite constraints linked to the unpredictability of productive activities, defining a common set of competencies to be transmitted is necessary. This aims to harmonize apprenticeship training content and ensure objective and fair assessment of apprentices, particularly in the craft sector. In this perspective, the competency matrix is used as a reference tool for developing curricula for apprenticeship training in crafts. It is developed using the Developing A Curriculum (DACUM) methodology, which is based on a participatory approach involving professional craftsmen in the analysis and description of their occupations. The development process includes a job analysis phase lasting approximately three days, followed by a validation phase of two days. These phases are not necessarily consecutive.

Key words: apprenticeship, craftsmanship, Benin, certification, curricula

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INTRODUCTION

In Benin, traditional apprenticeship remains a key pillar for the transmission of professional skills and the socio-economic integration of young people. Long based on informal knowledge transfer between master craftsmen and apprentices, it has contributed to the development of many artisanal trades but suffers from a lack of formalized standards, leading to disparities in training content and acquired competencies (Davoudoun, 2011).

In a context of increasing demands for professionalization, certification, and recognition of qualifications, the formalization of apprenticeship has become a central issue within the Technical and Vocational Education and Training (TVET) system (Davoudoun, 2016). In this regard, the DACUM methodology (Coffin, 1993) has been introduced to develop competency matrices serving as frameworks for training, assessment, and certification.

This paper analyzes this formalization process through the Certificate of Occupational Qualification (CQM) and highlights its foundations, stakeholders, and effects on the structuring of training and certification pathways.

METHODOLOGY AND RESEARCH QUESTION

This contribution examines the extent to which the formalization of training frameworks has improved the structuring of competencies in initial

vocational training through apprenticeship. It addresses the following questions: How do competency matrices contribute to an objective structuring of skills required for artisanal occupations? How do these matrices influence training practices of master craftsmen and apprentices' learning pathways?

This paper adopts a descriptive and analytical approach to the formalization of traditional apprenticeship curricula in the artisanal sector in Benin. The analysis is based on the application of the DACUM methodology, which has been used to develop approximately sixty competency matrices covering a wide range of artisanal occupations. The data are drawn from occupational analyses conducted by master craftspeople with the support of trained facilitators, as well as from institutional documents, including decrees, ministerial orders, and policy frameworks related to the CQM.

This methodological approach makes it possible to examine competency matrices as key instruments for structuring apprenticeship training. The analysis shows that competency matrices help identify and organize the competencies required for occupational practice; facilitate the transfer of skills between master craftspeople and apprentices; support training needs assessment and capacity-building initiatives for artisans; provide a basis for the development of competency record books; contribute to determining the duration of apprenticeship programmes; and support the assessment and certification of apprentices' competencies, particularly within

the framework of the CQM.

RESULTS

The competency matrix makes it possible to identify the core competencies of an occupation and break them down into tasks and skills required for its practice. It serves as an assessment framework for apprentices at the end of training and allows for monitoring the progressive acquisition of competencies throughout the training process. It is also used to develop a competency report used by apprentices for self-assessment. In addition, competency matrices are used to design examination papers for the CQM, which are based on the competencies and tasks to be assessed (Davodoun & Alfa, 2017).

The CQM represents the first level of certification in the TVET system. It provides access to higher-level certifications, including the CQM, as well as other professional recognition schemes.

To date, around fifty trades have competency matrices, out of more than three hundred identified occupations (Chamber of Trades and Crafts of Benin, 2024a). These matrices are used for final assessment of apprentices mainly trained in artisanal enterprises. The contribution of training centers is limited to occasional participation of instructors as occupational experts. The organization of CQM examinations at local level is ensured by public technical training centers, whose managers are responsible for providing materials, deploying equipment, mobilizing artisans for

examination panels, and processing results (Chamber of Trades and Crafts of Benin, 2024b, 2024c). The existing competency matrices have enabled the certification of approximately 104,615 apprentices between October 2023 and October 2025.

CURRICULUM DEVELOPMENT OF CQM-BASED APPRENTICESHIP

Normative and institutional foundations: DACUM was originally developed by Howard Clem and later refined by Robert Adams, who described it in 1975. The method is based on participatory principles centered on the learner, the training environment, assessment, and strategies that support learning progression. Competency matrix design follows strict standards, including: Presentation on a single page, division into technical and managerial domains, vertical organization of core competencies, horizontal organization of tasks and skills, precise formulation of competency statements.

Competency matrix as a curricular tool: In Benin, competency matrices are a key tool for harmonizing training content and pedagogical practices. They provide an objective basis for training and assessment and significantly improve the internal efficiency of apprenticeship training, particularly in the craft sector. For master craftsmen, the matrix serves as: A dashboard of competencies to be transmitted, an assessment tool using competency reports, a guide for

managing the training process, a basis for curriculum development, a reference for determining training duration, a framework for designing CQM examinations. for apprentices, it serves as: A tool for tracking learning progress, a self-assessment instrument, a motivational tool for entering apprenticeship.

The competency report derived from the matrix also serves as a communication link between the master craftsman and the apprentice's parents or guardians.

Contributions and limitations of DACUM methodology: DACUM provides apprenticeship training with formalized training tools that define occupational competencies required for training and practice. It replaces informal knowledge transfer where the master's experience alone was dominant.

The methodology ensures strong involvement of professionals, enhancing the reliability and credibility of occupational analysis results.

STAKEHOLDERS' ROLES

Master craftsmen

Master craftsmen, considered occupational experts, play a central role in developing competency matrices using DACUM. They participate in both the three-day development phase and the two-day validation phase. They analyze their occupation by identifying key competencies, tasks, and skills. during validation, the initial group (8-12 experts) is reduced and partially replaced to review the draft matrix.

Chamber of Crafts and trades of the state

The Chamber of Crafts and trades of Benin is responsible for organizing the Certificate of occupational qualification and planning competency matrix development in the craft sector. the process involves craftsmen, facilitators, and observers when necessary.

Technical and financial partners

Technical and financial partners support the development, dissemination, printing, and capacity building of craftsmen in the use of competency matrices.

POSITIONING OF CQM IN THE NATIONAL CERTIFICATION FRAMEWORK

Place of CQM in TVET

The CQM is the first qualification in technical and vocational education and training. it is accessible after three years of training in enterprises or training centers. it mainly targets out-of-school youth. training may also take place in vocational training and apprenticeship centers (CFPA), leading to CQM or Certificate of professional qualification (CQP) (Davodoun, 2014).

Articulation with CQP and higher education

The TVET system is based on continuity, mobility, and recognition of competencies. pathways allow learners to progress from one qualification level to another, both in general education and TVET (Ministry of Secondary, Technical

and Vocational Education and Training, 2020).

CQP and Certificate of Vocational Aptitude (CAP) provide access to higher-level professional qualifications. The system also promotes lifelong access to training through the Attestation of Professional Qualification (AQP), enhancing employability and recognition of skills.

CONCLUSION

The formalization of traditional apprenticeship through competency matrices represents a major step in modernizing vocational training in Benin. Based on the DACUM methodology, this system harmonizes training content, strengthens pedagogical practices, and improves objectivity in assessment and certification.

Competency matrices are essential curricular tools for defining skills, monitoring learning, and designing CQM examinations, while enhancing recognition of qualifications within the national TVET system.

However, challenges remain, including expansion to all trades, dissemination, capacity building, and resource mobilization.

Strengthening this system requires coordination between the State, the Chamber of Crafts and Trades of Benin (CMA-Benin), professionals, and technical and financial partners to improve training quality and recognition of apprenticeship-based skills.

DECLARATION

Article version statement

This article has been reviewed and preliminarily edited. It is intended solely for use at the 10th Research Conference of the International Network for Innovative Apprenticeship (INAP). The final version will be published in *Vocation, Technology & Education* (<https://www.vtej.ournal.com>).

REFERENCES

- Chamber of Trades and Crafts of Benin. (2024a). *Catalogue of competency matrices for artisanal occupations in Benin*. Chamber of Trades and Crafts of Benin.
- Chamber of Trades and Crafts of Benin. (2024b). *Certificate of Occupational Qualification (CQM)—Reform documents. Tome I: Framework document* (p. 189). Chamber of Trades and Crafts of Benin.
- Chamber of Trades and Crafts of Benin. (2024c). *Certificate of Occupational Qualification (CQM)—Reform documents. Tome II: Implementation guide* (p. 308). Chamber of Trades and Crafts of Benin.
- Coffin, L. (1993). *DACUM facilitator's manual* (P. Morin & I. Lajoie, Trans.). Canadian Association for Vocational Training.
- Davodoun, C. C. (2011). [*Traditional apprenticeship in craftsmanship in Benin*]. Éditions Ruisseaux d'Afrique.
- Davodoun, C. C. (2014). [*Traditional apprenticeship in Benin: From lethargy to revival—Final apprenticeship examination*]. Éditions Ruisseaux d'Afrique.
- Davodoun, C. C. (2016). *Certification in apprenticeship in Benin*. Réseaux d'initiation [Initiation Networks]. Éditions Ruisseaux d'Afrique [African Stream Publishers].
- Davodoun, C. C., & Alfa, L. (2017). [*Capacity building of craftsmen in the use of competency matrices*]. Les Éditions Plurielles.
- Ministry of Secondary, Technical and Vocational Education and Training. (2020). [*National strategy for technical and vocational education and training (2020-2030)*].