CAPACITY DEVELOPMENT
PROGRAMME (CDP) 2021 – 2022

THEMATIC CDP BRIEFS 9

COMPETENCE-BASED TRAINING
(CBT): A BRIEF OVERVIEW

ACQF
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Thematic Brief 9: Competence-based training (CBT): a brief overview

This thematic brief provides a concise overview of conceptual debates in the global literature and results of a review in 2020 on competence-based training (CBT) / Approche par Compétences (APC) in Africa

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1. Some conceptual highlights from the literature

All societies need a competent workforce. Work is a major feature of most people's lives. Not only does it provide them with the means to meet basic needs, but also the type of work undertaken by individuals and groups has a major impact on their self-identity, social status and standard of living. Technical and vocational education and training (TVET) is concerned with 'applied learning', with the acquisition of knowledge and skills for the world of work to increase opportunities for productive work, sustainable livelihoods, personal empowerment, and socio-economic development. TVET should also develop knowledge, skills and competences for individuals' lifelong and life-wide learning.

Worldwide, competence-based education has gained much interest as an innovation to prepare more effectively for superior performance, to overcome the barriers between the world of education and the world of work and to align educational programmes in vocational, professional, and higher education to labour market needs and developments in society.

This educational philosophy has challenged education to step out of its comfort zone, away from memorising textbooks and doing reproductive tests, and towards thinking more creatively. What does the changing society need from graduates, who will get or create jobs that may not yet exist? What education does the current generation of kids who enter the elementary schools need, when they – after 14 years from now – enter the labour market or go to college? This out-of-the-box thinking has resulted in more investment in aligning labour

market needs and workforce education programmes. This trend is amplified by theoretical notions of experiential, authentic, and workplace learning. (Mulder, 2017)

A key argument for maintaining a competence focus in vocational and professional education is that knowledge alone is not enough. Graduates must also be able to apply that knowledge in professional task or problem situations. So, institutions for vocational and professional education should not only focus on knowledge delivery, they must also include practicums, field attachments, internships, and projects in their programmes by which the students learn to apply their knowledge in real situations. Students' competence should be assessed by using authentic assessments as much as possible. In this way only can education protect itself against criticisms that it produces graduates who have qualifications but are not competent.

Competence-based Education is a global innovation. The literature shows that the competence movement is more alive than ever. Not only are the member states of the European Union using this educational philosophy, countries in the Americas, Australia, Asia and Africa are also working with it for the development of their national qualifications frameworks, their curriculum design and assessment practice. During the last ten years, and even today, there have been and still are many new competence-based initiatives in vocational and professional educational policy-making and competence framework building.

Although competence-based vocational and professional education is a worldwide innovation, there are many different conceptual foundations and theoretical perspectives, and various authors have different views on the pros and cons of competence-based vocational and professional education. Competence-based education philosophy cuts across many key aspects of education systems, such as the use of competence frameworks for curriculum development, the recognition of prior learning, quality improvement and effectiveness measurement, the areas of learning and the fields of knowledge and skills, as well as teacher support, teaching, and learning. The competence movement entered practically all subject matter domains in vocational and professional education.

Mulder (2017) defines the features of competence-based education as follows:

1. The availability of a competence framework which specifies the competencies which are required for effective performance in an occupation or job.
2. A framework to assess the current level to which an educational programme is competence-based and to facilitate the decision-making process regarding the quality improvement of the programmes in the direction of CBE.
3. A strategy for revising existing curricula in the direction of CBE, with sufficient attention for the integration of theory and practice.
4. Measures to make competence-based learning attractive, such as by gamification, and profound, such as by supporting argumentation competence development.
5. Measures to enhance self-regulated learning in CBE.
6. A system for the assessment of prior learning, which can measure the competencies that a candidate enrolling for a training, educational or development programme already mastered; such an assessment should lead to a personal study advice, and where appropriate lead to exemptions from certain classes or courses.
7. A system for formative competence assessment, to monitor competence growth, and a system for valid and trustworthy authentic summative assessment, to test the actual mastery of the key competencies for a job or occupation by the candidate.
8. An instrument for the "laddering" of competencies across several education levels to distinguish the meaning of those competencies at these different levels.
9. A system of mature competence management for the directors, managers, teachers and support staff in the organisation, with adequate competence feedback and development instruments.

2. Competence-based training in TVET in Africa

In the last twenty years several African countries have undertaken reforms of their TVET systems. In this context many countries have adopted CBT as main conceptual and methodological framework for development and implementation of TVET programmes and qualifications. CBT is expressed firstly by the transformation of curricula, although it should also transform the teaching methods in the classroom (Gauthier, 2015).

Although CBT has gained acceptance in many African countries, the interpretations of CBT vary between countries. Disparities relate to three main dimensions: a) exit profiles of curricula in function, in terms of national cultural, social and economic priorities; b) organisation of curriculum content; c) the process of teaching-learning to ensure the development of competences.

Countries share commonalities in the interpretation of CBT, e.g, on the principles of a) active learning, learner-centred approach; b) needs of contemporary life and work, which require transversal competences going beyond the narrower scope of knowledge and skills defined by the objectives-based approach; c) CBT emphasises "how to act" in a real context. In other words, learning must address complexity.

Constructivism and socio-constructivism have been the main theoretical underpinnings of pedagogic strategies of CBT, and certain authors consider that by nature they are better adapted and suited to the logic of competence development. Gauthier (2015) questions this argument, recommending avoiding the exclusion a priori of certain pedagogic approaches and instead opt for those other pedagogic/teaching models provided they have been validated by education research. Gauthier emphasises that the notion that every child/youngster builds his/her own knowledge is not to be questioned. But the question is how to help every child/adolescent build his/her knowledge. In this context learning and building of knowledge by the majority of pupils and young learners is promoted by structured teaching (explicit teaching), directed and structured, which can equally be associated with the competence-based approach.

Many countries in all regions of the African continent have developed and introduced CBT as the leading framework for the organisation of TVET. But the effective system-wide implementation of CBT varies largely between countries, and in some countries the CBT co-exists with other TVET concepts and frameworks.

- North: Morocco and Tunisia and Egypt
- West Africa: Benin, Cape Verde, Ghana
- Central Africa : Cameroon
- Southern Africa : Mozambique, South Africa
- East Africa: Ethiopia, Kenya, Rwanda

CBT-based TVET reforms have a long-standing history in some countries (Morocco, Tunisia), and have adopted a comprehensive scope, which includes the elaboration of sectoral and preliminary studies, development of competence standards, training programmes, pedagogic guides, assessment standards, establishment of CBT programmes and management of providers of CBT programmes. These reforms comprised development of capacities of teams of developers of CBT, promoted involvement of the relevant professional and sectoral organisations and included teacher training. Morocco has developed over 340 CBT-based programmes in 22 sectors. Egypt started and advanced with CBT reforms in TVET since 2018, and by 2021 had launched provision of over 35 new TVET programmes. Cape Verde has developed the CBT approach for design professional qualifications, which are structured by two main elements; a) the professional profile (the referential of

professional competences) and b) the training programme (training referential), and in the follow-up registered in its National Qualifications Catalogue ([CNQ](#)) 64 professional qualifications of 15 sectors (ACQF mapping study: Cape Verde. 2020; ACQF mapping study: Morocco. 2020).

In 2020 UNESCO, IIPE, and IFEF conducted an analysis of the development and implementation of CBT (APC) in TVET in Africa : 'Approche par compétences dans l'enseignement et la formation techniques et professionnels en Afrique. Étude à partir de sept pays de l'Afrique : Afrique du Sud, Bénin, Éthiopie, Ghana, Maroc, Rwanda et Sénégal' (Webpage with all resources : https://pefop.iiep.unesco.org/fr/publications.) The study was based on a common analytical framework based on the following questions:

- the history and institutional context of the introduction of CBT (APC)

- the processes of job analysis and analysis of economic potential in countries

- APC processes for the development of work situation analyses (ASTs), standards occupation-competences, training standards and assessment standards

- the degree of implementation of APC programs

- Training of trainers in APC pedagogy

- the creation of a qualifications framework related to occupations

- the impact of APC on the quality of TVET products.

As part of this study, seven African countries (Benin, Ethiopia, Ghana, Morocco, Rwanda, Senegal and South Africa) were visited in order to identify the degree of implementation of the competency-based approach (CBT - APC) in each of these countries, to identify good practices and assess the encountered issues and challenges. The [synthesis report](#) (UNESCO, IIEP, IFEF. 2020a) contains 18 recommendations, and several comparative summaries. Overall, the following salient points can be retained for each of these countries:

- In Ethiopia, CBT was introduced before the early 2000s and was implemented intensively from the years 2005-2006. The country has established a strong public-private partnership at the stage of the development of the occupation-competence standard (referential). Each trade has its own occupation-competence standards.

- In Senegal, the first experiments of the APC date back more than 15 years via different interventions of the international partners. In 2015, the new TVET Law formally decreed that the APC is the methodology applied for technical and vocational training. However, although initiatives (formal and informal) exist, the APC is still in an experimental stage.

- CBT in Ghana was introduced in 2000. After an experimental phase, Ghana has developed public-private partnerships over the past ten years to develop business-skills frameworks and implement APC training.

- The presence of the APC in Benin dates back about twenty years, first experimenting with it in the craft sector via a simplified and adapted APC (DACUM). In doing so, a partnership has developed between the representatives of craftsmen and the State to ensure that apprentices receive dual training, which has made it possible to modernise apprenticeship training (renewed apprenticeship).

- APC was introduced in Morocco in 2003. After a long period of experimentation, the APC is designed to be applied to the three existing modes of vocational training – residential, alternance and

apprenticeship. Although all the programmes are reviewed according to the APC, their application by the trainers remains incomplete.

- Present in Rwanda for a dozen years, the programs according to the APC were implemented from 2015. Since then, Rwanda has implemented and disseminated the APC in its TVET system based on a public-private partnership for the first two stages of the APC: the assessment of employment needs and the development of occupation-competences standards.

- Finally, in South Africa, TVET presents a diversity of types of training and learning that have emerged over the course of the country's recent history without replacing each other. Only the last two types of training, Unit Standard Learnership and Dual System Pilot (with deployments still quite limited), follow an effective APC approach, and this, only since 2012.

The conceptual and methodological framework of CBT (APC) in TVET is generally complex, composed by a wide range of guides and handbooks. Table 1 summarises the set of APC guides developed and applied in Morocco. A full overview of APC documents produced by the project 'REPAC' Morocco can be obtained at: http://www.reapcmaroc.com/pages/publications.php

Table 1: APC Morocco : documents of the methodological framework – evolution 2009 to 2015

Documents of the version 2009	Documents of the version 2015
Cadre méthodologique d'élaboration et de mise en œuvre des programmes selon l'approche par compétences	Cadre méthodologique d'élaboration des programmes de formation professionnelle selon l'approche par compétences – Présentation générale
Guide de conception et de production d'une étude sectorielle	Version 2009 maintained
Guide de conception et de production d'une étude préliminaire	Version 2009 maintained
Guide de conception et de production d'une analyse de situation de travail (AST)	Guide d'analyse d'une situation de travail et de production du référentiel de métier
Guide de conception et de production d'un référentiel de compétences	Guide d'élaboration et de production d'un projet de formation selon l'approche par compétences
Guide de conception et de production d'un programme de formation	Guide d'élaboration et de production d'un programme de formation selon l'approche par compétences
Guide de conception et de production d'un guide pédagogique	
Guide de conception et de production d'un guide d'évaluation	Guide d'élaboration et de production d'un référentiel d'évaluation
Guide de conception et de production d'un guide d'organisation pédagogique et matérielle	Guide d'élaboration et de production d'un guide d'organisation pédagogique et matérielle
Guide général d'évaluation des acquis des stagiaires selon l'APC	Version 2009 maintained
Guide d'implantation d'un programme de formation professionnelle élaboré selon l'APC	Version 2009 maintained
Modèle de gestion d'un établissement de formation professionnelle selon l'APC	Guide de gestion des établissements de formation professionnelle en APC

Source : UNESCO, IIEP, IEFP (2020: 25)

The [African Union Strategy for Technical-Vocational Education and Training](#) (TVET) and the [Plan of Action for the African Decade for Technical, Professional, Entrepreneurial Training and Youth](#) (2019-2028) call for further development of CBT.

Plan of Action for the African Decade for TVET and Youth (2019-2028)	**Focus Area 2**: Improving quality and relevance of TVET in Africa for an ever-changing world of work. Supported by a Matrix of activities (2019-2028) Planned intervention areas: - **Building outcome/competence-based TVET systems in partnerships with the private sector and other stakeholders.** - Harmonised qualifications and accreditation systems at regional and continental level. - Establishing mechanisms for TVET engagement in the transformational sectors. - Capacity building of educators with relevant modern and practical competencies. - Improving infrastructure, equipment, e-technology. - Internal quality enhancement at TVET providers

At regional level, the Secretariat of the Southern African Development Community (SADC) is committed to support the dissemination among its 16 member states of a harmonised guideline on Competence-Based Training (CBT) for TVET.

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