

Challenges of practicing competence-based education at Bahir Dar University: Views of faculty and academic leaders

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Abstract

The study was intended to investigate the challenges associated with the implementation of competence-based education (CBE) from the perspectives of faculty members and academic leaders at Bahir Dar University. A case study design was utilized to gain insights. A total of twenty-two participants, comprising eighteen males and four females, who occupy roles as faculty members, academic leaders, or both, were involved. Data were gathered through semi-structured interviews. The data were subsequently analyzed using the inductive content analysis technique. The study identified nine distinct categories of challenges that impede the effective implementation of CBE, such as (1) lack of shared understanding, (2) donor-driven and top-down curriculum design, (3) over-dominance of conventional instruction and assessment practice, (8) political interference, and (9) stakeholders' lack of commitment and negligence toward good citizenship. The study concludes that initiating the process with a comprehensive understanding of CBE that addresses these challenges is crucial. Furthermore, employing a systems thinking approach is beneficial for enhancing the practice of CBE.

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Introduction

Competence-based education (CBE) is increasingly gaining traction as an innovative educational approach (Eynon & Wall, 2002; Gervais, 2016; Van Griethuijsen et al., 2020). This approach has been implemented in various countries worldwide with the goal of bridging the gap between academic learning environment and the professional environments that students encounter after graduation (Brockmann et al., 2008; Mulder et al., 2007). CBE

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aims to reconcile the realms of education and employment by fostering the integration of knowledge, skills, and attitudes, as well as merging theoretical and practical components within both teaching and assessment practices (Sturing et al., 2011). Additionally, it emphasizes the creation of authentic learning environments (Pellegrino, 2004). Such educational reform is deemed crucial for effectively addressing the evolving demands of vocational and higher education practices (Mulder, 2017a) and meeting the challenges posed by contemporary society in the 21st century.

CBE is practiced within higher education institutions (HEIs) in Ethiopia, as outlined by the Ministry of Education (Ministry of Education [MoE], 2012; 2018). The objective of this educational approach is to enhance the alignment between theoretical knowledge and practical application, thereby producing graduates who are competitive both nationally and internationally, and capable of creating self-employment opportunities. Faculty members and academic leaders bear the responsibility for the effective practice of CBE. However, the current execution of CBE often falls short of expected outcomes. Employers have expressed concerns regarding graduates' lack of readiness for real-world job performance (MoE, 2018). Furthermore, there is a continued rise in youth unemployment. One contributing factor to these unsatisfactory results may be the challenges associated with the implementation of CBE, which impede the performance of faculty and academic leaders.

The existing literature highlights several challenges that hinder the implementation of CBE. These challenges include: (a) ambiguity surrounding the definition of competence (Biemans et al., 2004; Katoue & Schwinghammer, 2020; Vitello et al., 2021; Westera, 2001); (b) limited commitment and collaboration among various stakeholders (Biemans et al., 2004; Ford, 2014; Katoue & Schwinghammer, 2020; Solomon, 2016); (c) excessive dependence on standardization (Biemans et al., 2004; Ford, 2014; Katoue & Schwinghammer, 2020; Kellogg, 2018); (d) inflexible institutional frameworks (Curry & Docherty, 2017; Ford, 2014; Katoue & Schwinghammer, 2020; Kellogg, 2018); (e) challenges associated with altering teacher roles and identities (Biemans et al., 2004; Ford, 2014; Kellogg, 2018; Likisa, 2018); (f) the demanding nature of competence-based management and leadership (Mulder, 2000 as cited in Biemans et al., 2004; Kellogg, 2018); (g) the absence of a universally accepted approach for the design and implementation of CBE (American Youth Policy Forum, 2022; Ford, 2014); (h) lack of resources and technological support (Curry & Docherty, 2017; Ford, 2014; Katoue & Schwinghammer, 2020; Kellogg, 2018; Solomon, 2016); and (i) insufficient opportunities for authentic learning and assessment (Biemans et al., 2004; Curry & Docherty, 2017; Ford, 2014).

While a considerable body of research has been undertaken in developed nations, the challenges faced in the context of developing countries, such as Ethiopia, have been occasionally explored. This underscores the necessity of investigating this issue within the public higher education institutions (HEIs) in Ethiopia.

In Ethiopia, public HEIs have been implementing CBE through modular curricula for over a decade (Melese & Belay, 2020; MoE, 2012; Mulder, 2017b). This initiative was introduced to address the skill and attitude deficiencies identified in graduates during their transition to employment (Ashcroft et al., 2005; MoE, 2012; 2018). A significant number of employers have expressed concerns regarding the inadequacies of HEIs graduates in practical application and problem-solving skills (Ashcroft et al., 2005, p. 49). Furthermore, the CBE

framework aims to: (a) enhance the alignment between educational outcomes and labor market demands; (b) increase the competitiveness of graduates; and (c) promote job creation and the capacity for lifelong learning among students (MoE, 2012). To facilitate the transformation of teaching practices in accordance with these objectives, both long-term and short-term professional development training programs have been organized for educators (Wondem, 2022).

Research indicates that university educators have not significantly altered their instructional practices (Melese, 2019; Dejene, 2019). Graduates from HEIs in the country continue to be criticized for their deficiencies in computer literacy, communication skills in English, lifelong learning capabilities, research proficiency, and entrepreneurial mindsets (MoE, 2018), which contradict the expectations set by the CBE framework (MoE, 2012). Furthermore, the recent education and training policy highlights that educational practices in Ethiopia, at all levels, remain predominantly theoretical, failing to align with the requirements of the labor market (Federal Democratic Republic of Ethiopia [FDRE], 2023). While numerous studies have explored the challenges associated with CBE implementation in developed countries, there is a notable scarcity of similar research within the context of higher education in developing nations. Limited studies have been conducted in Ethiopia, particularly within the Technical and Vocational Education and Training (TVET) sector. However, the profiles of faculty and students, as well as the objectives and curricula of TVET and HEIs, differ significantly. This disparity underscores the necessity of investigating the challenges of CBE within the context of HEIs in Ethiopia.

Investigative research focusing on the perspectives of faculty and academic leaders, who are pivotal in the implementation of CBE, remains scarce. Therefore, an examination of the challenges associated with the practice of CBE within the context of HEIs is both timely and important. Such research will assist CBE practitioners, governmental entities, and other stakeholders in formulating strategies to address and surmount the obstacles encountered in the current and future application of CBE at the HEI level. Furthermore, it will contribute to the academic discourse by elucidating the challenges of CBE within the context of developing countries, as a substantial portion of existing literature has predominantly focused on developed nations. This underscores the necessity of investigating this theme specifically within public HEIs in Ethiopia, as the practice of CBE is inherently contextual.

Therefore, the objective of this study was to investigate the obstacles that impede the practice of CBE as perceived by faculty members and academic leaders at Bahir Dar University, Ethiopia. To guide this inquiry, we formulated the following research question: What are the challenges of practicing competence-based education?

Methods

To fulfill the objective of the study, a qualitative case study research design was employed. Participants for the interviews were purposefully selected from Bahir Dar University, Ethiopia. The selection process employed expert sampling, a specific form of purposive sampling, to identify individuals who possess significant knowledge and experience in the design and implementation of CBE. This approach was considered to be

appropriate given the nascent nature of the topic and the limited existing research in this field (Creswell & Plano Clark, 2011). The final participant count was determined by the principle of data saturation, resulting in a total of 22 participants, comprising 18 males and 4 females.

The participants exhibited an average age of 43.9 years and an average of 15.6 years of professional experience. Their academic ranks included ten lecturers, eight assistant professors, two associate professors, and two full professors. Within the university, they assumed various roles, comprising seven individuals engaged solely in teaching, nine involved in both leadership and teaching, and six dedicated exclusively to leadership responsibilities.

Data were gathered through semi-structured interviews, which aimed to elicit responses regarding the challenges encountered by faculty and academic leaders in the practice of CBE. Prior to the interviews, participants were informed about the study's objectives. Participation was entirely voluntary, and individuals expressed their consent to take part. We assured participants that the information they provided would be utilized solely for research purposes. We obtained oral informed consent from the participants. To maintain confidentiality, each interviewee was assigned a numerical identifier, such as Interviewee-1, Interviewee-2, and so forth. The interviews were conducted in the local language (Amharic). On average, each participant spent between 45 to 60 minutes completing the interview.

The recorded interview and field notes were transcribed and translated into English by the primary author in collaboration with a colleague who serves as a lecturer in the English department at the same institution. The transcribed and translated data were subjected to triangulation, and any discrepancies were deliberated upon until a consensus was achieved. An inductive content analysis methodology was employed to analyze the data, which comprised three distinct phases: (i) preparation, which involved the collection of pertinent data, iterative readings for comprehension, and the selection of the unit of analysis; (ii) organization, which entailed open coding, the creation of categories, and abstraction; and (iii) reporting the findings, which focused on articulating the content of the primary categories and sub-categories (Elo & Kyngäs, 2008). We agreed to adhere to these methodological steps and conducted the categorization independently. This process yielded a total of seven similar categories and two differing categories. Subsequent discussions between us facilitated the establishment of a common nomenclature for the two differing categories, ultimately resulting in the emergence of nine distinct categories. The identified categories were presented for the purposes of member checking.

Results

The results obtained from interviews conducted with faculty members and academic leaders identified nine distinct categories of challenges that impact the practice of CBE. Each of these challenges is subsequently presented and analyzed as follows:

Lack of shared understanding

The participants explained that there is no clear and shared understanding among faculty, leaders, and other stakeholders about competence, competency, competence (y)-based education, and educational philosophy. Concerning this view, one of the participants

stated “I don’t think we understand competence, competency, competence(y)-based education well. I think we don’t understand what modular approach and CBE curricula are.” (Interviewee 1, Leader).

Another interviewee also strengthened this view as follows:

There is no shared understanding about competence, competency, competence(y)-based education, educational philosophy or theoretical underpinnings among the university community. Everyone has his/her understanding of competence (y) and competence(y)-based education and he/she is practicing CBE in line with his/her interpretation and comprehension (Interviewee 7, Faculty).

Critical analyses of these views highlight the prevalence of confusion in comprehending the constructs competency, competence, competence (y)-based education and education philosophy during practice.

Donor driven and top-down curriculum design

Participants indicated that one of the significant challenges associated with the implementation of CBE is the CBE curriculum itself. They noted that the process of curriculum design is predominantly influenced by donors, and it follows a top-down approach. An illustrative statement from one participant exemplifies this perspective.

The process of curriculum design does not accurately reflect the practical realities encountered in educational settings. It is my perspective that CBE curriculum design fails to adequately account for the national and international contexts, the financial and other resources required for effective implementation of CBE, as well as the cultural and indigenous knowledge inherent to the society within the country. In Ethiopia, curriculum design appears to be consistently influenced by external factors, resembling a vessel navigating through turbulent waters, primarily driven by the interests of donors (Interviewee 4, Faculty and Leader).

The perspective of this participant suggests that foreign aid significantly influences the formulation of public policy in developing nations. This observation underscores the reality of aid and its associated conditionalities, which may hinder the exploration and integration of both local and global knowledge. Public policy development is typically the outcome of collaborative decision-making processes characterized by critical discourse. However, the participant's viewpoint indicates a lack of these essential elements, thereby endorsing the authoritarian characteristics of public policy-making in developing countries. This process often stems from the prevailing ruling party and the endorsement of aid providers, particularly in numerous Sub-Saharan African nations.

Over-dominance of conventional instruction and assessment practice

Participants articulated the challenges faced by universities in aligning faculty and leadership with experiences related to CBE curricula, teaching methodologies, and assessment practices. Educators often persist in utilizing conventional instructional methods and paper-based assessment techniques. The participants contended that the CBE curricula encompass a substantial number of courses, which are frequently repeated. One participant

(Interviewee-1, Leader) remarked, “The design of the curricula does not significantly differ from that of conventional curricula; it resembles an exercise of putting old wine into new bottles.”

Faculty resistance and failure to understand their role shift

Participants reported a lack of ongoing training regarding the new CBE program for faculty, specifically highlighting several key issues: faculty resistance to change, the need for a shift in faculty roles, the diversity of the student population, an overemphasis on theoretical instruction and assessment, the significance of feedback, and the motivation and willingness to explore innovative teaching and assessment methods, as well as the necessity for innovation to address complex, context-specific challenges. The participants emphasized that continuous training is crucial for addressing these faculty-related challenges and understanding their implications for CBE implementation. The following statements from the participants illustrate these points effectively.

Currently, there is a lack of training regarding the CBE curricula and other innovations being implemented by the institution. Nevertheless, it is essential to establish training programs for newly recruited instructors and those transferred from other institutions (Interviewee 3, Faculty).

In the context of CBE, instructors are anticipated to facilitate and guide students in cultivating a culture of self-regulated learning. However, it has been observed that the majority of instructors at this university predominantly rely on PowerPoint presentations and conventional lecture methods for the entirety of the instructional period (Interviewee 7, Faculty).

The responses from the interview participants highlighted the significance of induction training for newly appointed faculty members at the university. They emphasized the need for an ongoing and comprehensive capacity-building program for all faculties, with particular emphasis on CBE curricula, instructional methods, learning outcomes, and assessment practices.

Students’ poor background and reluctance to embrace new roles

Participants identified several challenges related to students in the implementation of CBE. These challenges include a lack of awareness regarding the shift in their roles, inadequate academic preparation, negative attitudes towards student-centered instructional and assessment methods, insufficient motivation and interest in self-regulating their learning, misconceptions regarding practicum or internship programs, and heavy reliance on peers to complete out-of-school assignments rather than engaging in individual efforts. The following quotations from two participants further elucidate these issues.

Students exhibit a lack of motivation to alter their roles in the learning process, perceiving their function primarily as passive recipients of information provided by the instructor. They hold the belief that the responsibility for their learning rests solely with the teacher. Consequently, this mindset inhibits their ability to engage in self-

regulation, which is essential for fostering their own empowerment in the educational context (Interviewee 1, Leader).

Due to the widespread implementation of mass education in Ethiopia, many students enter universities lacking the necessary foundational knowledge and preparedness to engage effectively with higher education. These students often commence their university studies without the requisite entry-level competencies. For instance, although the university is equipped with a digital library, a considerable number of students do not have the essential knowledge, skills, and attitudes needed to utilize this resource effectively (Interviewee 10, Faculty and Leader).

The excerpts provided indicate that CBE necessitates specific learning prerequisites from students, including motivation, self-regulation, independent initiative rather than reliance on others, and engagement in experiential learning, among other factors. Nevertheless, it appears that students do not consistently meet these requirements, which hinders the effective implementation of CBE within the educational setting.

Rigid institutional structure

Participants categorized institutions into formal and informal types. Formal institutions encompass rules, laws, regulations, directives, and infrastructural elements. In contrast, informal institutions comprise customs, prevalent habits, routines, established practices, traditions, norms, and expectations. Participants identified several challenges associated with formal institutions that hinder the implementation of CBE. These challenges include inflexible financial systems, protracted procurement processes, disorganized laboratory equipment, unreliable electricity power supply, a quality assurance office that prioritizes auditing over the enhancement of the teaching-learning process, large class sizes, and stringent rules and regulations. A notable example of a formal institutional challenge is the rigid semester-based approach to teaching and learning, which poses significant obstacles to the practice of CBE. Additionally, informal institutional challenges were noted, including entrenched practices, norms, expectations, and habitual behaviors exhibited by students, faculty, and institutional leaders. The following excerpts illustrate these challenges:

The semester structure is inflexible, resembling that of traditional curricula, and fails to account for mastery and individual variances among students (Interviewee 1, Leader).

The procurement process is protracted, resulting in laboratory chemicals often arriving at institutions only after the completion of the courses (Interviewee 5, Faculty).

The quality assurance office prioritizes auditing over the improvement of educational quality. To elaborate on this point, one interviewee remarked:

The quality assurance office is primarily concerned with auditing the attendance of both teachers and students in courses, the frequency of assessments administered, the availability of resources for the teaching-learning process, and the provision of

feedback. However, I contend that the critical factors include the quality of inputs, the instructional processes employed, the alignment of objectives with instruction and assessment, as well as the nature and quality of feedback provided. Furthermore, students evaluate courses upon completion; however, the results of these evaluations are not systematically analyzed or communicated to the relevant program or instructor for the purpose of future enhancement (Interviewee 22, Faculty).

The issue of large class sizes is identified as a significant institutional challenge that impacts the effective implementation of CBE. In this context, one interview participant articulated:

In the context of first-year students, classroom sizes typically range from 55 to 60 students per section. An instructor is anticipated to teach between three to six sections, resulting in a total of 180 to 360 students within a single academic term. This raises significant challenges regarding the instructor's ability to teach, assess, and provide individualized feedback in accordance with the requirements of CBE. Furthermore, the integration of theoretical knowledge with practical application in such a large classroom setting presents additional difficulties. The interviewee expressed concerns regarding the feasibility of effectively managing these responsibilities (Interviewee 5, Faculty).

Ineffective management

The challenges associated with management in CBE practice include insufficient accountability and transparency systems, ineffective monitoring and evaluation strategies, inefficient utilization of human resources, and a high turnover rate among experienced faculty and leadership. Additionally, the lack of incentive mechanisms for instructors who exhibit superior performance presents a significant obstacle. While there are limited opportunities to reward high-performing individuals, the existing incentive systems are often subject to misuse or abuse. An interviewee elaborated on this issue, stating:

Certain educators invest considerable effort in transforming conventional instructional and assessment methods. However, rather than recognizing these individuals for their contributions, it is often those with close ties to university leadership who receive accolades. Consequently, high-performing educators may be regarded in the same manner as their lower-performing counterparts. This mismanagement of incentives can lead to a demotivating environment for a substantial number of top-performing instructors (Interviewee 1, leader).

Participants have identified the inability of mentors and course chairs to fulfill their roles and responsibilities as a significant management challenge in the implementation of CBE. One interviewee noted, "There are several course chairs and mentors in each program; however, to my knowledge, their functionality is limited, despite the potential advantages associated with these positions" (Interviewee 18, Faculty and Leader).

The participants indicated that the university administration did not effectively disseminate and communicate innovations, guidelines, and directives to practitioners,

particularly to those who were newly recruited or transferred from other institutions. In this context, one interviewee remarked:

There exists a deficiency in the culture of effectively conveying the university's vision, mission, and core values to newcomers, as well as providing updates to current staff members. However, it is widely acknowledged that communication serves as the most effective strategy for instilling and ensuring the sustainable implementation of innovations (Interviewee 20, Faculty and Leader).

Participants also stated that the management of the university gives less attention to the reform efforts and devotes much more management times to contingent situations and political affairs. Besides, they lack commitment in the CBE implementation process. For example, one participant emphasized:

CBE necessitates a robust commitment and collaborative engagement among leaders. It requires a synergistic approach from all stakeholders involved in the implementation process. Leadership is anticipated to exemplify these principles by adopting facilitative, coaching, and transformational roles. However, it has been observed that university leaders are not fulfilling the expectations that CBE sets forth for them (Interviewee-8, Faculty).

Political interference

Participants indicated that political factors significantly influence the implementation of CBE. There exists political interference in the processes of recruiting and assigning university leaders and faculty members. The subsequent quotation from an interviewee illustrates this point effectively.

Individuals lacking merit are appointed as instructors and leaders within the university due to the influence of political affiliates, likely because of familial ties or shared political party membership. University administrators are often unable to resist these interventions, as they themselves may be related to political figures or aligned with the same political party. The prevalence of this practice is disheartening for dedicated educators who strive to enhance the quality of education at the university (Interviewee 1, Leader).

Furthermore, an additional participant in the interview indicated that:

Political leaders exert influence over education policy-making and regulations as a mechanism to propagate the ideology of the ruling party. CBE is not exempt from this influence. It is my assertion that to facilitate meaningful change through the effective implementation of CBE, it is essential to promote open deliberation among relevant stakeholders (Interviewee-2, Leader).

An additional political factor influencing the implementation of CBE at the university is the volatile political climate in the country since 2018. For example, one of the participants in the interviews noted:

Conflicts within the country frequently result in disruptions to academic schedules. Such incidents compel educators to prioritize the delivery of theoretical content over

the development of instructional and assessment strategies that incorporate practical tasks, primarily due to time limitations. Furthermore, these conflictual circumstances adversely impact the motivation and psychological well-being of both students and faculty members (Interviewee-8, Faculty).

Participants emphasized the significant role that peace plays in facilitating learning, conducting research, and promoting both individual and collective psychological well-being. The adverse environmental conditions have a profound impact on the teaching and learning process. Given that CBE requires substantial financial, temporal, and human resources, its effective implementation necessitates a peaceful environment.

Stakeholders' lack of commitment and negligence toward good citizenship

Participants indicated that employer organizations struggle to effectively communicate the specific competences they require from graduates. In support of this assertion, one interviewee remarked, "Employers express dissatisfaction regarding the expected competences of graduates; however, they fail to clearly delineate the competences they seek" (Interviewee 2, Leader).

Employers' (industries') inconsistent behavior presents another obstacle to trainees' ability to perform practical duties in the workplace. To bolster this opinion, an interview emphasized:

Not all industries treat the prospective trainees properly. I mean some industries consider practicum or apprenticeship programs as an opportunity to select their future employees and create ample opportunities for trainees to practice using machines and related resources. On the other hand, trainees are considered as burdens by few other industries. Such kinds of industries feel that trainees will damage machines and other resources during their practical engagement. Industries fail to allow trainees touch machines for fear of losing more money to repair damaged machines (Interviewee 18, Faculty and Leader).

According to the participants, society's attitude towards the value of education is declining. Besides, people who undergo their own business activities around HEIs affect students' behavior. These two scenarios have combined effect on the implementation of competence-based education. The following utterances of interviewees make this explicit:

In the current situation, our society gives less value for education and educated people. Money is getting more value. This motivates students to be engaged in different activities. Sometimes, they even engaged in harmful practices to the extent that it is valuable to earn money. Large numbers of students aspire to earn money shortly than devoting more time to get a university degree. These days, learning to earn a degree is an optional exercise and nobody needs to apply huge effort so as to demonstrate competence to the standard. (Interviewee 8, Faculty)

The people around the higher education institutions are engaged in business activities. These make students to waste their precious time as well as spoil their personal lives. For example, there are people who are engaged in selling different kinds of drugs that

have the potential to distract students' life. Genuinely, such business kiosks are getting incubation centers for university student juvenile delinquents. Surprisingly, there is no accountability. In my view, our morality is degraded, regrettably! (Interviewee 21, Leader)

Participants believed that unless there are resource constraints, it is important to address these challenges simultaneously to realize effective CBE practice. They believed that the challenges are interrelated and a system thinking approach may help to reduce their impacts. For example, one participant stated, "The frequent alterations in guidelines driven by political leaders lead to a lack of shared understanding and widespread faculty resistance to the genuine practice of CBE" (Interviewee 5, Faculty).

They are experienced with the effects of a single challenge followed by other challenges and the combined effects of them on the practice of CBE. For instance, one of the participants said:

The resistance exhibited by faculty members, coupled with their inability to comprehend the shift in their roles, is mirrored by students' hesitance to adopt new roles. This reluctance is particularly concerning given that CBE necessitates the active engagement of both faculty and students in new roles. The failure of both groups to embrace these new roles ultimately leads to a reversion to conventional instructional and assessment practices. This cycle perpetuates itself (Interviewee 11, Faculty and Leader).

Discussion

This study explored the challenges of practicing CBE from the views of faculty and academic leaders in a public higher education institution in Ethiopia. The results revealed nine categories of challenges that affect the practice of CBE. The categories emerged in this study are consistent with earlier findings. Yet, the results of this study are more comprehensive than the earlier ones.

For instance, Biemans et al. (2004) found seven categories of challenges to CBE as: the concept of competence, standardization, school and work place learning, determining learning activities, assessment of competence, changing teacher roles/identity and competence-based management. Another study by Katoue and Schwinghammer (2020) further revealed challenges as follows: (i) the lack of clear and accurate definition of competencies which complicates development, implementation, and assessment; (2) failure to change the conventional time-based curricula to a new model with a different design which necessitates the application of new teaching methods, assessment strategies and flexible, individual paced learning plans; (3) absence of agreement, commitment and cooperation among all actors; and (4) resource-related constraints and less attention to develop instructors capacity on CBE principles and requirements. In addition, Kellogg (2018) acknowledged the following seven challenges in relation with CBE practice: (1) faculty and staff training; (2) aligning programs and competencies to university standards; (3) integrating non-term based learning into existing structures that are rigid semesters; (4) financial aid and State/Federal

regulations that have not necessarily kept up with the changes in higher education; (4) faculty and staff perceptions of CBE; (6) financial/business models; and, (7) leadership turnover.

All the categories revealed in the previous studies (Biemans et al, 2004; a Katoue & Schwinghamme, 2020; Kellogg, 2018) are also reflected in the categories realized in this study. The current study; however, comes up with clear thematically organized categories and ranks them based on the effects they imposed on CBE practice. In addition, this study has also discovered contextual features of the categories in which they have been explained during CBE practice. Uniquely, one additional category different from the earlier studies; that is, political factor is identified. This study produced a comprehensive list of categories in the developing country context relatively better than earlier studies. This might be attributed to the nature of studies and number of participants: the first two studies (Biemans et al, 2004; a Katoue & Schwinghamme, 2020) are literature reviews. The current study is an empirical study examining faculty and academic leaders' views about the challenges of CBE. As the numbers of participants are concerned, in the previous study, Kellogg (2018) interviewed ten professionals as compared to the current study with twenty-two participants. This may have contributed to gaining more data on the topic under investigation.

The categories which are realized in this study are also supported by further literature sources. The first category is a lack of shared understanding during CBE practice. It is confirmed that there is no shared understanding about the construct of competence among all actors involved in the implementation of CBE. This finding is similar to the findings of previous studies (Biemans et al., 2004; Vitello et al., 2021). Nonetheless, scholars acknowledged that designed competence-based curricula, learning processes and assessment procedures can be implemented successfully if competence is defined as clearly as possible (Le Deist & Winterton, 2005; Mulder, 2011). There is also confusion on philosophical or theoretical underpinnings. Starting CBE from a clear educational philosophy or theoretical underpinning is considered important to deal with the nature of learning and knowing around which the CBE curriculum, instruction, and assessment functions are coordinated (Mulder, 2017a; Pellegrino, 2004). The Second challenge of CBE practice emanates from the donor-driven and top-down approach of the curriculum. In a previous study, Solomon (2016) also reported frequent changes of curricula as one of the challenges of CBE practice in the TVET context. Yet, CBE design and practice need sufficient deliberation among stakeholders (Dillon, 1994). "Curricula results from a process that reflects a societal agreement about the what, why, and how of education needed for the society in the future" (Tedesco et al., 2014, p.527). The third challenge is over-dominance of conventional instruction and assessment. This finding is similar to the findings of previous studies. For instance, studies indicate that the instructional and assessment practice of university teachers has not been changed, and they are still using lecture method and paper-pencil tests dominantly (Melese, 2019). Another study also indicates that the instructional process is mainly teacher-centered with power-point presentations. Not only those students are considered as an outsider and they simply receive information from the teacher but also were continuously sitting for tests with no written or oral feedback (Dejene, 2019). Furthermore, lack of authentic and formative assessment, flexible pacing that helps students to progress at their own pace, and shortages of necessary educational technology were reported as challenges of CBE (Curry & Docherty, 2017; Ford, 2014). These practices are against the principles of CBE. Nonetheless, CBE instruction and

assessment practice need the participation of stakeholders (Bergsmann et al., 2015). The fourth challenge in CBE practice is related to faculty's failure to adjust their role toward facilitator. They played gatekeeper role with inflexible strategies. Previous studies also reported similar results (Biemans et al., 2004; Ford, 2014; Likisa, 2018). Teachers should be able to demonstrate flexibility, critical reflection, organizational skills, collaboration, innovation or creative orientation, and a sense of responsibility during the practice of CBE (Day, 2017). The fifth challenge is caused by students' weak academic background and reluctance to assume new roles. This finding is similar to the findings of a previous study (Likisa, 2018). According to Likisa, inadequate awareness of teachers, Centre of Competency experts, and alumni students; particularly, about the nature, focus, assessment, and curriculum development of CBE were found serious challenges affecting its practice. For example, large numbers of students perceive authentic task assignments as the lazy teacher's exercise. However, professional education should be concentrated on applying learning by doing and developing the ability for continuous learning, problem-solving, and reflectiveness throughout the professional's career. Students should be able to engage in real problems, test solutions, make errors, seek help, and refine approaches through extensive dialogue or reflection-in-action with teachers and other actors (Schön, 1987). The sixth challenge is inefficient management or leadership. It is explained by poor communication, nepotism, improper allocation of incentive mechanisms, and demotivated staff. This finding is similar with previous studies in Europe. For instance, Biemans et al. (2004) reported the demanding nature of competence-based management as one of the challenges of CBE practice. However, CBE practice necessitates consolidating a learning organization that is composed of principles such as personal domain (e.g., increasing personal capacity), mental models (e.g., question, modify, rethink, rearrange, reflect, and clarify through continuous improvement), shared vision, team learning, and system thinking (Senge, 2006).

The seventh challenge is related to both formal and informal institutional factors which are also aggravated by weaknesses of the university to refine them successively. This finding is similar to the findings of previous studies (Ford, 2014; Kellogg, 2018; Katoue & Schwinghammer, 2020). For instance, Kellogg (2018), in her study of the challenges of CBE implementation reported the difficulty of integrating non-term based learning in to existing structures that are rigid semesters as institutional challenge. Besides, Ford (2014) stated that the lack of the development of highly adaptable institutional infrastructures and operations were challenges of CBE. Yet, researchers are recommending that "CBE implementation requires ongoing innovation, trials, modification, and fine-tuning" (Curry & Docherty, 2017, p.70). The eighth challenge is political interference. This interference is based on the assumption that education in the egalitarian tradition; that is, seeking equality of opportunity and the progressive elimination of elitist values (Meighan & Siraj-Blatchford, 1997). This assumption is followed by assigning students without the required university entry behavior and teachers without sufficient background to teach. Not only this but also leaders are assigned in a position based on their political affiliation to the ruling party and informal networks with political figures which undermines merit. The last challenge is stakeholders' lack of commitment and negligence to good citizenship. Some stakeholders have a positive outlook on apprenticeship while others have a negative attitude towards it. This challenge was also reported by previous studies (Biemans et al., 2004; Solomon, 2016). For instance,

Solomon (2016) mentioned that the poor cooperation from employers was a challenge to provide cooperative training for students during internship. This can be solved through developing a stakeholder map to describe the most important stakeholders and the process of stakeholder relationships with the university. It can be followed by the use of a closely networked collaboration and agreed-upon written regulations to ensure high-quality delivery of CBE (Kettunen, 2015). The challenges are interconnected and have combined effects on CBE practice requiring a comprehensive approach to manage them. The challenges can be grouped into two: within (7) and beyond (2) academic institutions. Political interference and stakeholders' lack of commitment and negligence to good citizenship can be seen beyond academic institutions. This implies that better practice of CBE can be realized by giving more emphasis to solving the problems within the academic institutions.

The emergence of the *political factor*, distinct from findings in prior research, may be ascribed to contextual variations. A significant number of earlier studies were conducted within the framework of developed nations, where democratic principles and meritocratic governance are prioritized. In contrast, the present study is situated within a developing country context, characterized by a nominal exercise of democracy, an administrative apparatus that favors citizens based on ambiguous criteria, and a decision-making process predominantly influenced by politicians rather than expert professionals. Furthermore, leadership positions are often assigned based on political affiliations and informal connections with influential political figures, resulting in ineffective leadership and a demotivated faculty. While previous research has identified *institutional-related factors* as challenges to CBE (Ford, 2014); the issue of *large class sizes* was not previously highlighted. However, participants in this study frequently cited *large class sizes* as a significant institutional challenge to CBE. This discrepancy may not be linked to the teaching and learning processes in developed countries, which often employ diverse methodologies that allow learners to progress at their own pace, rather than being confined to a conventional classroom setting. In contrast, students in the current study typically expect comprehensive guidance from their instructors in a conventional face-to-face learning environment.

A final remark and the missed opportunity is the introduction of CBE to all undergraduate programs in public universities occurred without prior piloting and evaluating its effectiveness. The start of a CBE program using small-scale intervention, learning from the process, and thinking about its scalability to realize its effective practice is advisable (Kellogg, 2018).

Conclusions and Implications

CBE needs open a culture and cooperation (Mulder, 2000, cited in Biemans et al., 2004, p. 534). This necessitates collaboration across all systems and levels of the learning environments. Managers, faculty, stakeholders, and students should be empowered with knowledge about CBE and engage in meaningful deliberations to enhance both organizational and individual success. The study also revealed that faculty and students are not engaged in their new roles. There is a need to revisit institutional structures and establish a fair system that promotes competence. This necessitates the establishment of an equitable system by governmental and non-governmental organizations that prioritize merit over

randomness and favoritism in the recruitment of new personnel and leadership, while also offering incentives for existing employees.

Large class size was repeatedly mentioned by participants as one of the challenges of practicing CBE though this was not the case in previous studies. Furthermore, it underscores the importance of developing alternative educational platforms such as Moodle, hybrid learning environments, computer-supported collaborative learning (CSCL), massive open online courses (MOOCs), and other interactive multimedia learning systems. These alternative platforms should combine multimedia formats (texts, videos, audio, images) with activities that help the learner apply and receive feedback in the study context. This study reveals a general undervaluation of education by society in general, and students, in particular which might imply a broader degradation of moral values in the country. Consequently, it is imperative for the government, society, and various stakeholders to actively promote civic responsibility to foster the emergence of ethically accountable citizens. This objective can be realized by creating platforms that facilitate active participation and collaboration among these entities.

In conclusion, the practice of CBE necessitates a fundamental shift in paradigm. It is essential to shift from conventional educational frameworks (in designing curriculum, instructional methods, assessment strategies, feedback mechanisms, the roles of faculty and students, stakeholder engagement, and management styles) toward a CBE model. The current application of CBE appears to be a mere rebranding of outdated practices. The findings of this study underscore the importance of recognizing the challenges associated with CBE practice, which must be addressed concurrently due to their interrelated nature and collective impact on CBE practices. This further suggests the need to adopt a systems thinking approach, as articulated by Senge (2006), as a theoretical framework for enhancing CBE practices.

Limitations and further research

This study is limited to one public university in Ethiopia. Besides, it only addresses the views of faculty and academic leaders. A large-scale study encompassing the views of students, faculty, academic leaders, and stakeholders across multiple public universities in Ethiopia is recommended to gain a more comprehensive understanding of the challenges in CBE implementation.

References

- American Youth Policy Forum. (2022). 5 challenges facing the CBE movement.
<https://www.aypf.org>
- Ashcroft, K., Mergo, B., Zelke, H., Lemma, M., Hishe, S., & Negassa, T. (2005). New Higher Education Institutions for Ethiopia: Analysis and discussion of curriculum, resource and organizational issues. *Higher Education Strategy Center–Ethiopia, higher. edu. Et* (accessed on Apr. 10, 2012)

- Bergsmann, E., Schultes, M. T., Winter, P., Schober, B., & Spiel, C. (2015). Evaluation of competence-based teaching in higher education: From theory to practice. *Evaluation and program planning*, 52, 1-9. DOI: [10.1016/j.evalprogplan.2015.03.001](https://doi.org/10.1016/j.evalprogplan.2015.03.001)
- Biemans, H., Nieuwenhuis, L., Poell, R., Mulder, M., & Wesselink, R. (2004). Competence-based VET in the Netherlands: background and pitfalls. *Journal of Vocational Education and Training*, 56(4), 523-538. <https://doi.org/10.1080/13636820400200268>
- Brockmann, M., Clarke, L., Méhaut, P., & Winch, C. (2008). Competence-based vocational education and training (VET): the cases of England and France in a European Perspective. *Vocations and Learning*, 1, 227–244. Doi: [10.1007/s12186-008-9013-2](https://doi.org/10.1007/s12186-008-9013-2)
- Creswell, J. W., & Plano Clark, V. L. (2011). Designing and Conducting mixed method research (2nd ed.). Thousand Oaks, CA: Sage.
- Curry, L., & Docherty, M. (2017). *Implementing Competency-based education. Collected Essays on Learning and Teaching*, 10, 61–73. Retrieved from ERIC Database. EJ1147189. DOI: [10.22329/celt.v10i0.4716](https://doi.org/10.22329/celt.v10i0.4716)
- Day, C. (2017). Competence-based Education and Teacher Professional Development. In Mulder, M. (Eds.) *Competence-based Vocational and professional Education. Technical and Vocational Education and Training: Issues, Concerns and Prospects*, vol 23. Springer, Cham.
- Dejene, W. (2019). The practice of modularized curriculum in higher education institution: Active learning and continuous assessment in focus. *Cogent Education*, 6(1), Research-Article. <https://doi.org/10.1080/2331186X.2019.1611052>
- Dillon, J. T. (1994). The questions of deliberation. In J. T. Dillon (ed.), *Deliberation in Education and Society* (Norwood, NJ: Ablex), 3–24
- Elo, S., & Kyngäs, H. (2008). The qualitative content analysis process. *Journal of advanced nursing*, 62(1), 107-115. doi: [10.1111/j.1365-2648.2007.04569.x](https://doi.org/10.1111/j.1365-2648.2007.04569.x).
- Eynon, R., & Wall, D. W. (2002). Competence-based approaches: a discussion of issues for professional groups. *Journal of Further and Higher Education*, 26:4, 317-325, DOI: [10.1080/0309877022000021720](https://doi.org/10.1080/0309877022000021720)
- FDRE. (2023). *Education and Training Policy*. Ethiopian Federal Democratic Republic Ministry of Education: Addis Ababa.
- Ford, K. (2014). Competency-based education: History, opportunities, and challenges. UMUC Center for Innovation in Learning and Student Success, 10.24. DOI: [10.13140/RG.2.1.4679.0885](https://doi.org/10.13140/RG.2.1.4679.0885)
- Gervais, J. (2016). The operational definition of competency-based education. *The Journal of Competency-Based Education*, 1(2), 98-106. DOI: [10.1002/cbe2.1011](https://doi.org/10.1002/cbe2.1011)
- Katoue, M. G., & Schwinghammer, T. L. (2020). Competency-based education in pharmacy: A review of its development, applications, and challenges. *Journal of evaluation in clinical practice*, 26(4), 1114-1123. DOI: [10.1111/jep.13362](https://doi.org/10.1111/jep.13362)
- Kellogg, S. (2018). Competency based education: Best practices and implementation strategies for institutions of higher education.
- Kettunen, J. (2015). Stakeholder relationships in higher education. *Tertiary Education and Management*, 21 (1), 56-65. DOI: [10.1080/13583883.2014.997277](https://doi.org/10.1080/13583883.2014.997277)
- Le Deist, F. D., & Winterton, J. (2005). What is competence? *Human resource development international*, 8(1), 27-46. <https://doi.org/10.1080/1367886042000338227>

- Likisa, K. D. (2018). Challenges and prospects of competency-based education: The case of adama science and technology university alumni students and hawasa TVET College, adama, Ethiopia. *The Journal of Competency-Based Education*, 3(2), e01163.
[DOI:10.1002/cbe2.1163](https://doi.org/10.1002/cbe2.1163)
- Meighan, R. & Siraj-Blatchford, I. (1997). *Sociology of Educating*, 3rd (Ed.). London: Cassell.
- Melese, S. (2019). Instructors' knowledge, attitude and practice of differentiated instruction: The case of college of education and behavioral sciences, Bahir Dar University, Amhararegion, Ethiopia. *Cogent Education*, 6(1), 1642294.
<https://doi.org/10.1080/2331186X.2019.1642294>
- Melesse, S., & Belay, S. (2020). Curriculum Conceptualization, Development, and Implementation in the Ethiopian Education System: Manifestations of Progressive Curriculum Orientations. *Journal of Education*, 0022057420966760.
<https://doi.org/10.1177/0022057420966760>
- Ministry of Education. (2012). A Guideline for modularization to Ethiopian higher education institutions, Organized by Higher Education Strategy Center (HESC), Addis Ababa, Ethiopia.
- Ministry of Education. (2018). Ethiopian Education Development Roadmap (2018-30): An integrated executive summary, draft for discussion, Addis Ababa, Ethiopia.
- Mulder, M. (2007). Competence-the essence and use of the concept in ICVT. *European journal of vocational training*, 1(40), 5-21.
- Mulder, M., Weigel, T., & Collins, K. (2007). The concept of competence in the development of vocational education and training in selected EU member states: a critical analysis. *Journal of Vocational Education & Training*, 59(1), 67-88.
- Mulder, M. (2011). The concept of competence: blessing or curse? In Torniaainen, S. Mahlamäku-Kultanen, P. Nokelainen & P. Ilsley (Eds). *Innovations for Competence Management*. Lahti: Lahti University of Applied Sciences, pp. 11-24.
- Mulder, M. (2017a). Competence and the Alignment of Education and Work. In Mulder. M. (Ed.), *Competence-Based Vocational and Professional Education. Bridging the Worlds of Work and Education*. Cham, Switzerland: Springer, pp. 229-251.
- Mulder, M. (2017b). Competence Theory and Research: A Synthesis. In Mulder. M. (Ed.), *Competence-Based Vocational and Professional Education. Bridging the Worlds of Work and Education*. Cham, Switzerland: Springer, pp. 1071-1106.
- Pellegrino, J. W. (2004). Complex learning environments: Connecting learning theory, instructional design, and technology. In M.S. Norbert and S. Dijkstra (Eds.). *Curriculum, plans, and processes in instructional design* (pp.25-48). Mahwah, New Jersey: Lawrence Erlbaum Associates, Inc.
- Schön, D. A. (1987). *Educating the reflective practitioner: Toward a new design for teaching and learning in the professions*. New Jersey: Jossey-Bass.
- Senge, P. M. (2006). *The fifth discipline: The art and practice of the learning organization*. New York: Broadway Business.
- Solomon, G. H. (2016). *Towards competence-based technical-vocational education and training in Ethiopia* (Doctoral dissertation, Wageningen University and Research).

- Sturing, L., Biemans, H. J., Mulder, M., & De Bruijn, E. (2011). The nature of study programmes in vocational education: Evaluation of the model for comprehensive competence-based vocational education in the Netherlands. *Vocations and Learning*, 4(3), 191-210. DOI: [10.1007/s12186-011-9059-4](https://doi.org/10.1007/s12186-011-9059-4)
- Tedesco, J. C., Opertti, R., & Amadio, M. (2014). The curriculum debate: Why it is important today. *Prospects*, 44(4), 527-546.
- Van Griethuijsen, R. A., Kunst, E. M., Van Woerkom, M., Wesselink, R., & Poell, R. F. (2020). Does implementation of competence-based education mediate the impact of team learning on student satisfaction?. *Journal of Vocational Education & Training*, 72(4), 516-535. <https://doi.org/10.1080/13636820.2019.1644364>
- Vitello, S., Greatorex, J., & Shaw, S. (2021). What is competence? A shared interpretation of competence to support teaching, learning and assessment. Research Report. *Cambridge University Press & Assessment*.
- Westera, W. (2001). Competences in education: a confusion of tongues. *Journal of Curriculum studies*, 33(1), 75-88. <https://doi.org/10.1080/00220270120625>
- Wondem, D. T. (2022). Higher diploma program: A centrally initiated and successfully institutionalized professional development program for teachers in Ethiopian public universities. *Cogent Education*, 9(1), 2034243. <https://doi.org/10.1080/2331186X.2022.2034243>