



Competency-Based Education: Shifting Focus from Grades to Skills

Wambui David Adeline

Faculty of Education Kampala International University Uganda

ABSTRACT

Competency-Based Education (CBE) redefines the traditional educational framework by emphasizing the acquisition of skills over the accumulation of grades. This educational model allows students to advance based on demonstrated mastery rather than time spent in class, promoting a personalized learning experience. CBE's principles challenge conventional grading systems, suggesting a need for flexible pathways and innovative assessment methods to ensure students are equipped with the necessary skills for success in their academic and professional careers. This paper explores the theoretical foundations of CBE, its implementation strategies, benefits, and challenges, and compares it with traditional grading systems. The impact of CBE on student learning outcomes and overall success is also examined, emphasizing the need for a systemic restructuring of educational practices to fully realize the potential of this approach.

Keywords: Competency-Based Education, Personalized Learning, Skill Mastery, Educational Reform, Grading Systems.

INTRODUCTION

As previously stated, competency-based education (CBE) focuses on what students need to learn and be able to do rather than time spent in a class or at an institution. Individualized instruction is at the heart of CBE programs where students advance after they have put a specific competency into practice, which could involve everything from knowledge to skills to attitudes. Colorado is beginning to see more personalized learning opportunities and programs for its students through its schools and districts. Many have begun to explore the personalization of learning options in the past few years. However, there is research that shows a gap in understanding the role that competency-based education plays in the advancement and success of personalized learning in public education [1, 2]. A traditional model of education treats everyone equally without acknowledging the different needs of each individual student and viewing each as the same in growth and capabilities. The district has been operating as a more traditional school system because it is what the system is rooted in. Not only does this impede the progress of students needing more or alternative means of education, but stakeholders at all levels also support certain opinions of what education should look like. As scheduling and seniority were discussed in focus groups, traditional education concerns were brought into the conversation. Teachers, administrators, and other personnel at multiple levels voiced concerns about how the district would handle the transition from the traditional model to anything else [2].

UNDERSTANDING COMPETENCY-BASED EDUCATION

Competency-based education is an approach to teaching and learning that shifts the focus from grades and seat time to the acquisition of skills. This approach prioritizes what a student knows and can do over where, when, and how students learn. In a CBE system, students progress upon demonstrated mastery of competencies or skills and pathways are flexible to allow for students to advance at their own pace. CBE's goals are to set clear expectations for what students will learn, provide multiple ways for students to learn and demonstrate their learning, and end the practice of "one-sized-fits-all" in education. Although CBE has its roots in earlier educational reform efforts, the past few years have seen a renewed interest

and expansion of competency-based models, inspired in part by the growing concern that the current education system is failing many students. CBE has the potential to fundamentally change the education system and ensure that all students develop the knowledge and skills necessary for success in college, careers, and life. But CBE is not a “silver bullet,” nor is it a new set of assumptions or practices that can be grafted onto the current education system. Education providers must commit to a comprehensive, systemic restructuring of supports and operations if they wish to make CBE a reality. Finally, competency-based education should be undertaken with caution and monitored for the unintentional re-creation of some of the negative aspects of the current system, such as inequitable access to desired pathways [3]. Competency-based education’s key principles are as follows. Students advance upon demonstrated mastery. In a CBE system, students advance upon demonstrated mastery of competencies or skills, rather than on time, age, or other criteria usually used to determine progression. Competencies are clearly defined skills. Competencies are explicit, measurable, and transferable graduation-level skills that are largely the same across classrooms, schools, and states. Pathways are flexible and personal. Pathways through a CBE system are flexible to allow for students to advance at their own pace. Students can receive personalized learning experiences that respond to their individual skills, knowledge, interests, and needs. The CBE model is as radical as it is attractive [4].

DEFINITION AND KEY PRINCIPLES

Competency-based education (CBE) is an approach to reforming the traditional education system. There are several definitions of competency-based education, but most include at least four characterizations. First, learners need to prove mastery of a skill or competency for credit and/or to advance to a next level. Second, in order to obtain credit for a course or skill, learners can obtain extra time and/or personal instruction. Third, the assessment of a student’s mastery takes place mostly at the level of skills application. Fourth, a traditional classroom setting is not a prerequisite, as learning can also take place in various contexts [5, 2]. A competence is an individual’s ability to act within a given context in a responsible and adequate way, while integrating complex knowledge, skills and attitudes. A competency can be defined as a combination of cognitive and metacognitive skills, demonstration of knowledge and understanding. Competencies are linked with student-centeredness and self-directedness. Learning or developing a competency can be broken into smaller steps, and the assessment commonly includes feedback by peers as well as self-assessment [6].

BENEFITS AND CHALLENGES

The discontent with education has also echoed in the ever-increasing calls to improve the education system as a whole. The complaints range from school district budgets to the failure of the education system to prepare students for college or career. Unfortunately, rather than constructing a well-formed critique of the education system, detractors often adopt specific complaints about the current education system like low test scores or isolated failures by students and schools. These specific complaints are transformed into deeply held convictions regarding such problems including underfunded schools, teachers’ unions, and the scope and uses of standardized tests but without a deeper understanding of the education system as a whole [7, 8]. Similarly, educators are continually producing methods to improve education without ever clearly defining the overall system. Education as a whole has been compared to a machine, and its problems reduced to broken gears without questioning the nature, origin, or both of those gears. Nonetheless, there has been almost a tacit agreement on the current structure of the education system, which has led to, among other possible outcomes, the creation of the No Child Left Behind act. On its surface, NCLB had good intentions but, in reality, brought about new and more insidious problems in the education system as a whole and in particular schools. A group of concerned parents finally tired of the broken machine (i.e., the education system) and demanded strict accountability measures, never questioning whether the new gears that were being forced on schools could also be broken or whether controls create a new set of choices for a particular action and a lack of choices for everything else. This new picture of “accountability” became like a playbook limiting the possible options and potentially obliterating it. Hence, a deep critique of the education system as a whole is needed. Such a critique should be philosophically sound, disinterested, and grounded in a rich understanding of the historical genesis and the present state of the education system as a whole. Only through such a critique can the problem of education be adequately mirrored and subsequently improved. With that in mind, education needs to be analyzed with respect to the nature and purpose of education, why there is an education system, and how it functions [9].

COMPARISON WITH TRADITIONAL GRADING SYSTEMS

A prominent feature of traditional schooling is the accumulation of course credits and diploma attainment based on accumulated grades. Grading systems that assign students scores or letter grades to represent

their achievements are embedded into the school systems of most western-style countries. From the earliest and simplest A–F grading systems, grade scales have evolved in complexity to control equity and reliability issues. Recent educational reforms have criticized grading systems for being invalid measures of student achievement and unsound metrics with which to determine instructional and intervention effectiveness. The inherent contradictions between grading instruments and the social agendas they are supposed to fulfil render educational stakeholders skeptical towards, reluctant to use, and dissatisfied with grading systems [10]. Throughout the United States, a string of “No Zero” or “deferred grading” policies has emerged that seeks to abandon the use of traditional grading instruments altogether. In their place, educators favour a pass–fail status possessing a single standard. The assumption guiding these interventions is that low-stakes assessment systems will lead students to invest more effort in challenging schoolwork, thereby increasing their academic achievement. However, these non-selective pass–fail approaches confuse the distinction between enrollment in courses and course progress relative to learning objectives. This might leave at-risk students even more off course and could increase overall dropout rates as push-out rates across all academic performance levels increase.

IMPLEMENTATION STRATEGIES

In CBE, the curriculum is organized around competencies, or the expected knowledge, skills, and attitudes that students should acquire. Competencies are defined on different levels, depending on the educational program. At the level of the educational program, broadly phrased competencies describe what the graduate should be able to do. At the level of courses, these competencies are translated into more detailed learning outcomes. The competence descriptions provide a blueprint for the curriculum. The curriculum content directly relates to the competencies to ensure that all necessary knowledge, skills, and attitudes are covered. The designers need to determine the curriculum content and the corresponding learning activities, study methods, and assessment methods for these learning outcomes [11, 12]. CBE allows the individualization of curricula. By using an appropriate information system, the study progress of all students can be followed. Based on this, students can play an active role in their learning process and make agreements with their supervisors about the individual curriculum design. By using a CBE curriculum, it is possible to address the needs of target groups such as gifted students (personalized curriculum with advanced courses), students with a high work load (flexible curriculum with many part-time courses), and students with specific needs (e.g. need to follow courses in a different sequence). Another advantage of CBE is the flexibility in choosing the study pace. Students can decide for themselves how fast or slow they want to learn, depending on their motivation, pre-knowledge, and time they have available [13]. To realize individualized curricula, an information system is needed that records all learning outcomes and the study progress of each student. The system should be web-based, intuitive, and easy to use. The other element that helps to personalize the curriculum is the involvement of the educational staff. Guidance by supervisors plays a key role in the CBE system. Supervisors work closely together with the students, offering them feedback, support, and advice. Regular contacts between supervisors and their students foster a good study climate [14].

ASSESSMENT METHODS

Assessment of the study results in a CBE curriculum focuses on the competencies instead of the courses. This requires a shift in the view of examination and assessment. Knowledge tests (written tests, MC questions, etc.) are not appropriate for assessing practical skills or attitudes. Alternative assessment methods can be used to measure the students' proficiency and mastery of knowledge, skills, and attitudes. Competency tests in which students have to demonstrate their knowledge, skills, or attitudes in practice (e.g. by means of a clinical setting or simulated workplace) are common in health education. This type of assessment requires the assessment of complex skills. The Hamilton rating scale for depression (HAM-D) was developed to assess the severity of depression. Students are trained by clinical professionals in conducting the 21-item HAM-D interview. The assessment consists of students conducting the interview and interviewees (patients) being rated on a 5-point interval scale of 21 items. Each item equals 0, 1, 2, 3, or 4 points, with a total score ranging from 0–54 points [15]. Another alternative assessment method that can be used in CBE is portfolio assessment. A portfolio is a collection of products and evidence documenting the development and achievements of an individual. The contents of portfolios vary widely but usually comprise a combination of samples of work, self-assessments, feedback from others, and the student's reflection on these activities. Portfolios can include different media and may comprise written papers, tape-recorded conversations, models, drawings, drawings, and artwork. In higher education, portfolio assessment is increasingly used to evaluate complex skills, metacognitive skills, and attitudes. Portfolios provide insights into the learning process and offer a broader view of the student's

performances than traditional one-off testing. However, portfolio assessment requires much effort on the part of both students and assessors [16, 17].

CURRICULUM DESIGN

Defining what an institution wants students to know and be able to do is historically the starting point for developing curriculum. CBE challenges institutions to define desired outcomes for students in terms of competencies (skill mastery) rather than traditional learning experiences (hours of class, grades). This results in a reorganization of learning objectives and pathways so that students progress through courses and programs on the basis of demonstrated mastery of these competencies. New instructional strategies and assessments may then be adopted to help students acquire these skills and demonstrate their mastery. Learning experiences and assessments that are not constructively aligned with competency development will need to be removed from the curriculum [4]. All stakeholders perceive that students come to classrooms as novices with little background knowledge. This is viewed as a barrier to making the classroom a student-centered community of inquiry and a driver to redesign the curriculum to better support student understanding. Competency-based approaches foster innovative instructional strategies that help students develop the competencies necessary to succeed in their jobs. However, there is no evidence from the literature that this was encouraged externally by the institution (the CBE Framework). In most cases, course teams approached a competency-based redesign top-down as part of a four-year scaling strategy. In these institutional contexts, several course teams had been developing student-centered instruction and assessment well in advance of the introduction of the CBE Framework. CBE need not drive students' analytic skills. Researchers caution against interpreting competency-based learning as a narrowing of student learning, in terms of knowledge scope and depth, epistemic thinking, and critical consciousness. Such an interpretation arises from within a traditional liberal education framework, in which it is presumed that disciplinary knowledge is knowable, and education concern itself with identifying taxonomies of such knowledge [18].

ASSESSMENT METHODS

Shifting the focus of competency-based education from grades to skills requires significant reflection on assessment methods. In competency-based education, the concept of testing must shift from traditional testing to performance-based assessments to determine whether students have demonstrated proficiency in the skills. An array of assessment options can be utilized. These options may include portfolios, projects, presentations, peer assessments, teacher assessments, and IT/AV (information technology/audio-visual) aids, among others. In determining what assessments to use, the following questions can be considered: 1) What skills need to be assessed?; 2) Who is doing the assessing? (e.g. students, peers, teachers, employers); 3) When is the assessment happening (e.g. mid-course, end of course)?; and 4) How is the assessment taking place? To encourage students to grow in all areas, a combination of assessments is the best practice for determining whether students have met proficiency in the desired skills [19]. There is a wealth of information on what methods can be used for assessment to best capture whether students have achieved proficiency in the various skills. Performance assessments, such as projects and oral presentations, provide opportunities to assess students' skills in more realistic contexts. Using multiple assessments can provide a more holistic assessment of skills. In addition, students must have the opportunity to do formative assessments throughout the semester in which they receive feedback on their progress so they can work toward proficiency. Feasible and practical guidelines can help determine what assessments to use to best evaluate student proficiency in the skills so they can successfully navigate their personal and professional goals after graduation [20].

IMPACT ON STUDENT LEARNING AND SUCCESS

There is a strong drive for CBE, especially in higher education, with a number of institutions already implementing CBE programs. Numerous studies provide positive insights into the effects of CBE on learning outcomes as well as on students' chances of success. However, there is a lack of greater understanding of how CBE influences student satisfaction and influences the effects of CBE initiatives on learning outcomes and success rates in educational programs. Several studies provide indications in this area, but larger-scale studies examining these effects in depth across different programs are needed. Notably positive recommendations exist about the focus and clarity of CBE programs and aspects related to student responsibility and ownership. However, there are also indications that CBE can become overly student-oriented and thereby pacing issues can arise. There is also still concern about the impact of CBE on the quality of education. For programs or areas within programs to be implemented and assessed across multiple institutions on a larger scale, a clear plan of action is needed. This plan of action should encompass the potential differences in form and level of CBE implementation at the institutes, as well as cohesion in data collection and intended goals [21].

CONCLUSION

Competency-Based Education represents a paradigm shift in the educational landscape, moving away from traditional grade-based systems toward a model that prioritizes skill acquisition and mastery. By focusing on competencies rather than time spent in the classroom, CBE offers a personalized learning experience that can better meet the diverse needs of students. However, the successful implementation of CBE requires a comprehensive restructuring of educational practices, including the development of new assessment methods and flexible learning pathways. While CBE has the potential to improve student outcomes and better prepare individuals for their future careers, it is essential to monitor its implementation closely to avoid replicating existing inequities within the education system. Ultimately, CBE's success will depend on the commitment of educational institutions to embrace and sustain this innovative approach to learning.

REFERENCES

1. Oroszi T. Competency-based education. *Creative Education*. 2020. scirp.org
2. Açıkgöz T, Babadoğan MC. Competency-based education: theory and practice. 2021. biruni.edu.tr
3. Cuyacot EP, Cuyacot MT. Competency-based education: Learner's new process for success. *International Journal of Research*. 2022. researchgate.net
4. Prokes C, Lowenthal PR, Snelson C, Rice K. Faculty views of CBE, self- efficacy, and institutional support: An exploratory study. *The Journal of Competency- Based Education*. 2021 Dec;6(4):233-44. wiley.com
5. Patrick S. Transforming Learning through Competency-Based Education.. *State Education Standard*. 2021. ed.gov
6. Vorhölter K. Metacognition in mathematical modeling: the connection between metacognitive individual strategies, metacognitive group strategies and modeling competencies. *Mathematical Thinking and Learning*. 2023. [\[HTML\]](#)
7. Balzer WK. Lean higher education: Increasing the value and performance of university processes. 2020. [\[HTML\]](#)
8. Bates T, Cobo C, Mariño O, Wheeler S. Can artificial intelligence transform higher education?. *International Journal of Educational Technology in Higher Education*. 2020 Dec;17:1-2. springer.com
9. Baltodano M. Neoliberalism and the demise of public education: The corporatization of schools of education. *Neoliberalism and education*. 2023. [\[HTML\]](#)
10. Högberg B, Lindgren J, Johansson K, Strandh M, Petersen S. Consequences of school grading systems on adolescent health: evidence from a Swedish school reform. *Journal of Education Policy*. 2021 Jan 2;36(1):84-106. tandfonline.com
11. Wyne MF, Zhang L, Farahani A. A review of competency based education (CBE). In 2021 International e-Engineering Education Services Conference (e-Engineering) 2021 Jun 22 (pp. 127-132). IEEE. [\[HTML\]](#)
12. Misbah Z, Gulikers J, Dharma S, Mulder M. Evaluating competence-based vocational education in Indonesia. *Journal of Vocational Education & Training*. 2020 Oct 1;72(4):488-515. tandfonline.com
13. Cates SV, Doyle S, Gallagher L, Shelton G, Broman N, Escudier B. Making the case for virtual competency-based education: Building a twenty-first century small business workforce. *Higher Education, Skills and Work-Based Learning*. 2021 Feb 2;11(1):282-95. [\[HTML\]](#)
14. Ifenthaler D, Yau JY. Utilising learning analytics to support study success in higher education: a systematic review. *Educational Technology Research and Development*. 2020 Aug;68(4):1961-90. springer.com
15. Imanipour M, Ebadi A, Monadi Ziarat H, Mohammadi MM. The effect of competency- based education on clinical performance of health care providers: A systematic review and meta- analysis. *International Journal of Nursing Practice*. 2022 Feb;28(1):e13003. [\[HTML\]](#)
16. Gallardo K. Competency-based assessment and the use of performance-based evaluation rubrics in higher education: Challenges towards the next decade. *Problems of Education in the 21st Century*. 2020. ed.gov
17. Goss H. Student learning outcomes assessment in higher education and in academic libraries: A review of the literature. *The Journal of Academic Librarianship*. 2022. [\[HTML\]](#)
18. Charrón Vías M, Rivera-Cruz B. Fostering innovation and entrepreneurial culture at the business school: A competency-based education framework. *Industry and Higher Education*. 2020 Jun;34(3):160-76. [\[HTML\]](#)

This is an Open Access article distributed under the terms of the Creative Commons Attribution License (<http://creativecommons.org/licenses/by/4.0>), which permits unrestricted use, distribution, and reproduction in any medium, provided the original work is properly cited.

19. Evans CM, Landl E, Thompson J. Making sense of K- 12 competency- based education: A systematic literature review of implementation and outcomes research from 2000 to 2019. *The Journal of Competency- Based Education*. 2020 Dec;5(4):e01228. wiley.com
20. Tailab M, Marsh N. Use of self-assessment of video recording to raise students' awareness of development of their oral presentation skills. *Higher Education Studies*. 2020. ed.gov
21. Dubey P, Pradhan R. Factors affecting student's satisfaction on technology-enhanced learning in higher education. *Journal of Xi'an University of Architecture & Technology* ISSN No. 2020;1006:7930. academia.edu

CITATION: Wambui David Adeline. Competency-Based Education: Shifting Focus from Grades to Skills. Research Output Journal of Arts and Management, 2024 3(3):13-18.