

Book Review

An Interdisciplinary Approach to Implementing Competency-based Education in Higher Education, by Barbara Goodman, Darren Henderson, and Eileen Stenzel. Published by The Edwin Mellen Press, New York, 2006, (ISBN-13: 978-0-7734-5831-4), 144 pp., hardcover, (99,95\$).

Preface

As a graduate student, I had my first contact with competency-based education (CBE) from a guest lecturer in the area of vocational–technical education. The graduate students at the lecture were sceptical and not informed about the so-called notion. Some of us had an inclination that it was relevant but doubts persisted because we wanted to defend approaches such as the problem-solving teaching process. The problem-solving approach links to Dewey (1960) who believed that the learner could learn by solving practical life problems. The steps to the problem-solving approach reflect the following: (1) structuring the problem to be resolved by the group based on student experience; (2) stimulate interest through questions related to the problem; (3) students next actively identify objectives towards finding information and a possible solution; (4) students review what they need to be able to do to solve the problem; (5) students carry out supervised study to gather information about the problem; and (6) they arrive at the applicable solution by testing alternatives and then implement the solution (Swanson, 1984). This approach is student-centred and the students learn to do specific things. The assessment of student performance involves the observations from the supervised study and the completion of their identified objectives. The performance competencies would be in the cognitive (knowledge), psychomotor (skill) and affective (attitude) domains described by Mager (1975). Does this approach resonate the concerns of CBE?

There is little doubt that we learned that the problem-solving approach compliments the work accomplished in CBE, but does not lead to the development of the educational or training curriculum. We also learned CBE involves the participation of actors from the ‘workplace’ of former students who assist in defining competencies that guide the development of the higher educational academic curriculum. Curriculum development is undertaken with the participation of key workplace stakeholders and others. These stakeholders provide the relevant criteria and standards to be performed by students in their educational activities or experiences at the university.

Positive Perspective

CBE has been clearly accepted in the teaching–learning process at the higher educational institutions in Europe (Bologna process) and elsewhere, because of the

democratic educational process (Dewey, 1966). The notion has now become a part of the ‘contract with the profession’ which values the idea to ‘know and do specific things’ that relate to your profession. CBE now dominates all the student-centred approaches in Europe and has less need to be defended as a sound learning approach. However, there is probably still a need to prepare people and institutions to use it correctly. For this reason, the book to be reviewed has merit.

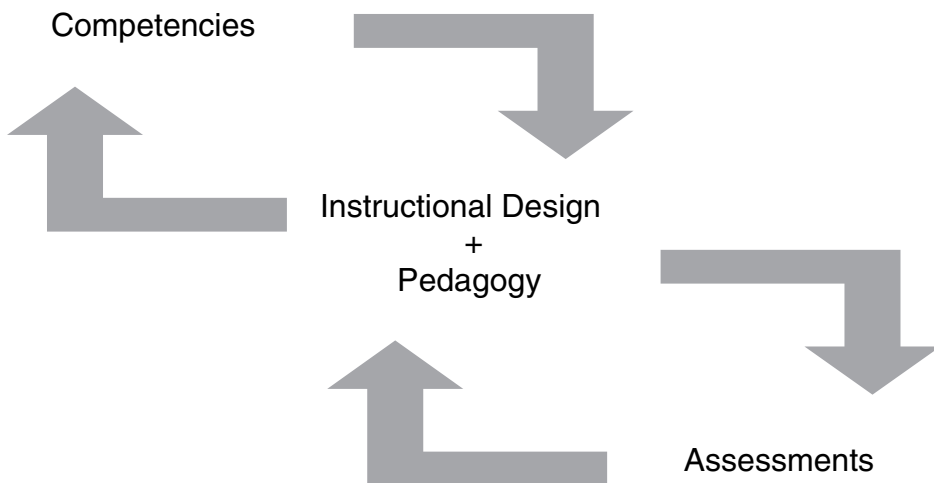
The book is structured into five chapters. Chapter one lays the framework for the reader concerning CBE that identifies competencies (knowledge and skills), instructional design (formulation of objectives and design of teaching–learning strategies) and assessment that is linked to the previous components in the iterative model. The next three chapters are the experiences of the three authors in implementing CBE in their teaching areas. The final chapter and conclusion are a shortened review using the social service area as a key model for implementation of CBE.

An interesting aspect of the book, the authors share their personal experiences in teaching at the higher educational level by describing the functionality within the humanities, human services and computer sciences with CBE. The perspectives of three educationalists in three distinct areas of higher education were described using the ‘waterfall/iterative model’. In any event, I would call them ‘teaching–learning stories’ that reflect their pedagogic development and use in the classroom of CBE. I enjoyed their stories.

The Iterative/Waterfall Model

The iterative/waterfall model of CBE orients the discussion about the implementation process in the book.

Competencies are the beginning and the end of the implementation process. ‘Competency refers simply to the ability to do something’ (Goodman et al., 2006: 24).



Iterative/waterfall Model of CBE Implementation Adapted (Goodman, Henderson and Stenzel, 2006: 3).

Another study defines competency, as ‘the combination of skills, abilities and knowledge needed to perform a specific task’ (Jones et al., 2002: 7). In each of the definitions, the competency should reflect the ability to do something in the future profession. There are tools that can be used for job analysis and the identification of competencies (Wentling, 1993) for the educator.

Competencies are linked to the instructional design + pedagogy of the course. The outcomes or competencies are stated in measurable and observable terms. The student will perform the competency through the completion of instructional activities, tasks and initiatives in the programme. The teaching–learning methods and strategies permit the student to perform the competency, while being evaluated by the instructor.

The assessments are preoccupied with evaluating the student abilities and capacities in performing the competency. The competency is made clear at the beginning of the course work and is later observed and confirmed through student performance in formative and summative evaluation.

Challenges

One clear challenge will be to bundle competencies in an integrative manner from discipline to discipline in the higher educational curriculum. The authors suggest the mapping approach to determine the courses that will be covered by the particular competencies. This implies a participatory team effort with all the actors in the curriculum development process. The leadership in this process must be aware of the implications of implementing the CBE in their institution. It will be difficult, if for example, you are working with people who think in the ‘traditional credit hour measures of student achievement’.

The book addresses CBE in general terms while recognising key authors in the footnotes that are a prerequisite to understanding many activities, tasks and initiatives in the implementation process. In the preface, I referred to my personal experience with CBE at the entry into my professional career. At the time, I lacked the experience for understanding the implementation process for CBE. In this context, those readers, who have limited teaching experience, will find terms and concepts that will require further questioning and study. I recommend a self-directed learning process in order to benefit from the teaching–learning stories in the book. I challenge the reader to procure additional practical guides and read the suggested reading in the footnotes of the book. This can stimulate your ‘academic growth and self-development’ and possibly assist in the implementation of CBE in your classroom. I would recommend additional readings such as Mager (1975, 1997), Raab et al. (1987), Wentling (1993) and others.

The authors provoke us to foster lifelong learning to strengthen not only our student’s ability to perform as self-directed learners, but also educators and trainers at higher educational institutions.

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