Importance of OBE in Teaching Learning Process

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Abstract - Outcome based education (OBE) in engineering education. It is an approach of education that clearly identifies its intended final product – students’ competencies by determining the final curriculum outcome - a head of planning the framework of the curriculum. The unambiguous outcome is used to plan the curriculum, monitor its implementation, evaluate it and assess student’s achievement. The present paper is review of the origin, advantages, disadvantages, pitfalls and guidelines in implementation of outcome-based education. It is an attempt to provide a comprehensive coverage of a very popular current trend in engineering education.

I. Introduction

Origin of the outcome based education (OBE)
OBE has been adopted for more than a century when educators brought to light the importance of appreciating students’ individual variation in the learning process, believing that education is best measured by encouraging individual students’ achievement that could occur at different rates for different students. OBE allows the students of different abilities to learn at their own rates with an emphasis on programmatic outcome in professional medical knowledge, skills and attitudes [3, 4]. The concept of OBE was also encouraged by the reform in the health care system that stresses on establishing a common set of standards for doctors with highlighting the fact that professionalism should be an essential competency achieved by the medical student before graduating [5]. With the increasingly global marketplace for higher education, OBE has been adopted by many medical schools with a great interest to ensure that the degrees granted to their students are competitive and accredited internationally and their graduate are competent practicing physicians [6,7].

Nature of the outcome based education (OBE)
Any teacher involved with OBE must be able to evaluate the effectiveness of his/her classroom experience implementing OBE. The following list delineates some of the tenets of OBE, and this digest will demonstrate how some of these tenets are utilized in the language arts/reading classroom:

- Both staff and students take responsibility for successful learning.
- Objectives are clearly defined.
- Students have choices and options, thus they usually perform at higher levels of competency.
- Instructional levels are determined after complete assessment of student mastery.
- Students are given the opportunity to gain from others and to build a hierarchy of learning skills.
- Evaluation by both peers and instructors is ongoing.
- Time is varied for learning according to the needs of each student and the complexity of the task.
- Students are given the opportunity to work with core and alternative curriculum.
- All students are ensured the opportunity for personal success.

Outcome-based education approaches the curriculum decision making based on the competencies students should demonstrate at the end of their educational program, thus the outcomes or competencies dictate the curriculum content and organization, the teaching methods and strategies, the course offered, the educational environment and the assessment strategies [8]. All curriculum and teaching decisions are made based on how best to facilitate the desired final outcome [9, 10]. Steps for planning and implementing outcome based curriculum:

1. Deciding on the outcomes: the educational outcomes are clearly identified and unambiguously specified regarding the content, context and competence. The US Accreditation Council on Graduate Education [11],lumps the outcomes into a set of general competencies addressing patient care, medical knowledge, practice-based learning and improvement, system-based practice, interpersonal and communication skills and professionalism [12].
2. **Demonstrating outcomes**: The expected outcome should be defined by setting ‘benchmarks’ for each level of the program. Each benchmark is a skill that must be demonstrated by the student. Benchmarks should tackle and define specifically the goals of the curriculum and verify ways to assess whether students have reached these goals at that level of study.

3. **Deciding on contents and teaching strategies**: OBE can be implemented as a ‘Whole-class’ models which aim to bring all learners in a classroom up to high levels of learning before proceeding further or by the ‘Flexible’ models which use flexible grouping, continuous progress, technological approaches and instructional management [9,10].

4. **Assessments in OBE**: OBE is driven by assessments that focus on well-defined learning outcomes and not by other factors such as what is taught, the duration taken by the student to achieve the outcomes or which path the students take to achieve their targets [13]. In OBE standard-referenced assessment could be used which is similar to criterion - referenced assessment but with clearer description of expected performance and since OBE requires ongoing feedback between the student and the lecturer, continuous assessments and student portfolios would be of a great help in assessing OBE[12].

**Advantages**

The adoption of OBE is perceived as a valuable addition to the educational process believing that with its clear specified outcomes it encourages participation and collaboration from multiple disciplines and interest groups in planning and implementing the curricula which will foster learning in various areas of medical practice. Educators believe that OBE does not only guaranty the clarity and assures the absence of controversy in curricula planning but also its relevance to the students’ future practice. The clear, straightforward outcomes provided by OBE form a framework for decision – making and guidelines for assessment and program evaluation [2, 4]. The educators who support OBE in medical education believe that the presence of specific, unambiguous outcomes, enables OBE to promote more self-directed learning and allow students to have a meta-cognitive understanding of the educational program and their role in that process. It also encourages active discussion of those goals and the values they embrace.

**Disadvantages**

The shift to OBE has attracted lots of opposition. Opponents believed that, education should be an open ended and should not be constrained by outcomes and that education should be valued for its own sake, not because it leads to some outcome. They believe that defining education as a set of outcomes - decided in advance of teaching and learning - conflicts with the wonderful, unpredictable voyages of exploration that characterize learning through discovery and inquiry. They mistakenly assume that teaching will be inappropriately limited by this model. Moreover they are arguing and emphasizing on what they believe; that the inclusion and emphasis on attitudes and values in stated outcomes is inappropriate [4, 14] Critics of OBE object to the use of standardized tests thinking that it is unfair to use the same level of work or to use the same achievement tests for impoverished or racially disadvantaged students as they do for more advantaged students. They also claim that the OBE approach does not permit specific, unambiguous outcomes, enables OBE to promote more self-directed learning and allow students to have a meta-cognitive understanding of the educational program and their role in that process. It also encourages active discussion of those goals and the values they embrace.

**Guideline to implement OBE**

Attempt to have your total staff in concert with the tenets of your program. Teachers need updated education and are usually open to new ideas and will implement them if they feel significant support from administration and other staff members. Plan a day-long program at the outset for introducing and educating the staff with the objectives of your resolve. Speakers for our staff development programs have included both outside presenters and our own personnel. Sometimes outside presenters have a wide appeal and bring a fresh approach to a given subject. Our program has been effective for many reasons, but one is the direct input of the staff in deciding what they want in terms of staff development. In OBE activity based learning is required. We should not measure students’ performance by assignment or exams only rather we should have outcome based assessment. In spite of exams we should assess the outcome of their learning. In spite of traditional learning it is necessary to have hand in hand usage of traditional and ICT as well OBE approach. We should make our students learn by various participative learning techniques. It is necessary to have the outcome and that should be connected with course outcome and program outcome.
II. Conclusion

OBE is an educational approach considered in planning, implementing and evaluation of curricula rather than an event occurring in the curricula. It promises high level of learning for all students based on the achievement of clearly unambiguous outcomes with consideration to the appropriateness of each learner’s development level and assuring active and experienced-based learning. It provides the learner with the destination of the educational journey before voyaging.

References