

## **Student's Perception towards Program Outcomes: A Systematic Review**

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### Abstract

Outcome Based Education (OBE) is an improvised educational theory which is widely practiced by educational center as early from primary to tertiary level of education worldwide. Although OBE had been implemented earlier, it is still revolutionary and becoming the panacea for the educational system nowadays. OBE theory gives opportunity to both educators and learners to explore the knowledge in the best approach. This is advanced as a useful approach to curriculum design and enactment. A systematic review is conducted to assess the student's perception towards OBE in the educational system worldwide. Review search was done through Scopus, CINAHL, and Medline. A total of 4 studies were found that met the essential. Based on the findings, we discussed on students' knowledge, perceptions as well as the barriers on OBE implementation. The result from this research found that implementation of OBE in educational institute did improve both students and educators achievement.

**Keywords:** Outcome Based Education, student perception

### 1. Introduction

Outcome based education (OBE) is a specified theory that focused on what students are expected to learn at the end. Hence, the courses of study are arranged so that student can achieve the outcome. OBE is a new revolutionary approach to education where decisions about the curriculum are driven by the outcomes the students should display by the end of the course. Plan of a course needs to be look beyond the end of a course to consider lifelong learning needs. Most commonly this is by ensuring that courses play a part in developing the intellectual capabilities needed for lifelong learning (Kember, 2005)

In the OBE approach, the learners are trained to be active, creative, and innovative; at the same time developed critical thinking in reasoning, reflecting and action taken. In contrast to the traditional approach, OBE focuses on learners/students; student-centered, whereby lecturers/teachers only act as facilitators who guide to achieve the outcome. OBE will change the focus of education institutions from the syllabus content to the student. An outcome-based model seems entirely appropriate in the current educational climate as it delineates the roadmap of 'fitness to practice' and suggests ways to achieve the same (Mukhopadhyay, 2010). OBE is not linked to deep learning by definition alone as the former is observed by performance and not by process. This is not to say that OBE does not incorporate deep learning but that its focus is on demonstrable criteria and not on a foundation of internalized understanding. Deep learning can be described as making sense of ideas (Biggs, 2003).

The majority of studies related to OBE are focused on university students as study population to gain feedback and perceptions on the effectiveness of the system. Only a few studies were done involving student's perception of teacher's personality, skill, knowledge and other factors that indirectly related to the OBE system. The purpose is to highlight how teachers and students have constructed outcomes-based education and deep learning and to relate how the lived realities of both groups have impacted this construction (Collin K. J., 2015). An OBE approach to curriculum planning does not dictate the precise approach to be adopted for teaching and learning. Teachers may make use of a wide diversity of methods to achieve the expected learning outcomes. The OBE model does not assume that there is only one way to teach and to learn but it does require the teacher and learner to think critically and to select a method that is likely to achieve the expected learning outcomes (Harden R. M., 2007).

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. (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. (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. 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 (Spady W.1994; Harden R.M. 2005). Hence, this systematic review was carried out to investigate and evaluate the perception of students' towards the program outcomes.

## 2. Methodology

This systematic review was conducted according to 2009 PRISMA guidelines.

### 2.1 Search strategy

A systematic research was conducted to search for studies on the Student's perception on the Outcome based Education. A comprehensive literature search was done for published studies via MEDLINE, CINAHL and Scopus databases. The keyword used included "Outcome Based Education" and 'student perception". Figure 1 shows the flow of literature search strategy according to PRISMA guideline.

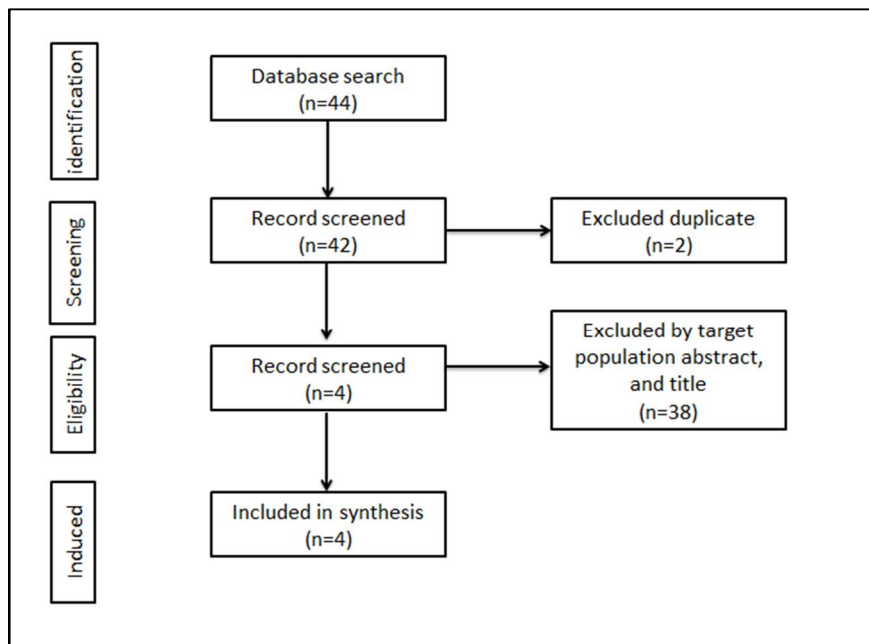


Figure 1. Searching strategy according to PRISMA guideline

## **2.2 Inclusion and exclusion criteria**

Articles from year 2010-2016 focusing on student perception towards program outcomes and OBE

## **2.3 Quality assessment of included studies**

The quality of the reviewed study was assessed by focusing on various methodological features. The criteria were clearly defined inclusion criteria, the sample population, the objectives and the outcomes of the study. Consensus on the quality of reviewed studies between the authors were met, thus a scoring approach to assess the quality of the study was not used.

## **2.4 Data extraction**

Data were extracted from each full-text study using a PICOS technique. These studies have no intervention and comparator. Therefore, the intervention and comparator were ignored. The data extractions were done by taking few items into considerations. The items were the name of the first author, year of publication, objectives, study design, study population, and the outcomes.

## **3. Results and discussion**

### **3.1 Participants**

Extracted data were presented in Table 1. All studies were focused on students as their subject as the main objective is to assess student perspective towards OBE. The only different is the student's field of study. Study by Chelliah K.K. in 2010 was done on Diagnostic Imaging and Radiotherapy Graduating students while study by Prakash in 2010 was done on Second-year undergraduate medical students (MBBS). D. D. Susan has sampled her study on veterinary students in 2013 whilst Fawad in 2014 has done on students in engineering department.

### **3.2 Knowledge and skills of OBE**

Students have positive knowledge towards OBE education system. They stated that the PO did encourage them to be proactive. They have been provided with an ample time to complete the assigned task with 90% of the students rated good and excellent (Kanaga, 2010). Results from Davis et al. in 2007 also showed that the student improved their problem-solving skill and be able to communicate effectively with others rated with 96%. There were several important requirements in implementing OBE and to ensure that OBE works. Educational practitioners should ensure adequate planning time while learners have to assume greater responsibility and actively participate in the learning process. Besides parents have to play their particular roles on some financial resource (Malan et al., 2000; Davis et al., 2007).

Prakash et. al. (2010) has discovered that most students agreed of SOLO taxonomy might contribute to an extent toward knowing the hierarchy of cognitive complexity underlying descriptive responses, planning their studies, preparing and presenting response of the descriptive type. Students believe their scores were an accurate indication for their performance thus the indicators selected to judge the impact of OBA in promoting student-centered learning focused on students' interpretation and action related to the scores they received on their assessment report (Dawsonet.al.,2013).

### **3.3 Attitudes toward OBE**

The studies indicated that the respondents had positive attitude and high satisfaction towards OBE. It is shown that the respondents generally pleased with the achievement of the program outcomes. Most of the program outcomes received rates more than 90% for excellent and very good. The only program outcome that obtained rate of 79% for excellent and very good was regarding entrepreneurship knowledge and skill. This poorer result was due to lack of knowledge on entrepreneurship. However, some of the respondent in Dawson et al. (2013) research were unsatisfied with the outcome reports due to unorganized system; time-lapse between completing clinical rotation and changing different evaluators.

### **3.4 Barriers of OBE Implementation**

Different understandings of how aims, goals or learning outcomes relates to instructional design differ among educators were the major challenge in implementing the system (Bolander et al. 2006; Morcke and Eika, 2009). Likewise, it is reasonable to assume that when OBE is implemented, educators have different interpretations of such an approach and hence different solutions of how to practice OBE. Absence of time and poor planning on behalf of instructor and unacceptable low scores or great score gap between self and instructor assessment adopting students with passive stance toward OBE were one of the barriers (Dawson et al., 2013). The education center should have a continuous and sustainable monitoring of the implementation of OBE through the use of data base system. By improving the monitoring system of the implementation of OBE through seminars and additional assessment examination.(Valdez, 2010) The Faculty and students should attend seminars that will gain knowledge for the implementation of OBE to easily develop a solution or action for its effective implementation.

## **4. Conclusions**

The experiences gained from the study provide motivation to orient students with OBE in order to promote metacognitive knowledge and skills among students. The findings support the idea that teaching and learning benefit from an active dialogue between teachers, and between teachers and students about learning requirements and intended outcomes. Furthermore, OBE system needs to be managed in more systematic approach so that it will be adaptable to all educators and learners.

## **Acknowledgement**

The authors express the gratitude to who have contributed to this study formal and informal.

Table. 1 Data of Extractions

NO	AUTHORS	YEAR	OBJECTIVE(S)	POPULATION	OUTCOMES
1.	Huma Fawad, Dr. Irfan Anjum Manarvi	2014	To review the current structure of teaching quality evaluation practices conducted in engineering institutes of Pakistan and focuses on the development of a meaningful Systematic Evaluation of Teaching that would generate meaningful feedback for enhanced effectiveness of the faculty.	Students (n=103)	The systematic evaluation of Teaching confirms the effect of Subject Matter Knowledge and its effective deliverance to characteristic elements of personality traits of teachers on the general perception of teaching quality.  Students relate enthusiasm, hotness and appeal, motivation, confidence, broadening of outlook, relatedness & element of concern with good teaching style.
2.	Susan d. Dawson, et. Al,	2013	To examine the ways in which a competency-based program in an early phase of implementation impacted student learning and faculty instructional practices.	Focus group students (n=7) Faculty questionnaire (n=17)	The finding revealed that negative student perceptions of the assessment instrument's reliability had a detrimental effect on the face validity of the instrument and, subsequently, on students' engagement with competency-based assessment and promotion of student-centered learning.

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3.	E. S. Prakash, et. Al,	2010	To sample student perceptions regarding the usefulness of explicit discussion of “Structure of the Observed Learning Outcome - SOLO” taxonomy.	<p>Phase 1: second year undergraduate medical student (n=68)</p> <p>Phase 2: Second year undergraduate medical student experimental group (n=10), control group (n=10)</p>	<p>Phase 1: The level of interest of students that have being familiar with how their answer are graded and their rating of clarity of the illustration of SOLO taxonomy as well as the extent to which they believe knowledge of SOLO taxonomy will influence their studies.</p> <p>Phase 2: Although scores in the experimental and control group were comparable, majority of participant indicated that knowledge of SOLO taxonomy help them study and prepare better answers for questions of the descriptive type.</p>
4.	Kanaga Kumari Chelliah	2010	To analyze the extent of achievement of program outcomes on graduation from student’s perspective.	Graduating Students (n=30)	More than 85% respondents rated very good for PO 1-7 (refer to journal), whilst only 75% rated very good for PO 8 which is related to entrepreneurship.

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