

## A Review on Outcome-Based Education Practices

Norlaila Abdullah

### ABSTRACT

*This review analysis involves the applications of an Outcome-Based Education (OBE) in a number of countries in Asia, United States of America, Australia and the Middle East. To address the goal of understanding OBE, the author turned to OBE practices of Lingnan University, Hong Kong. Using this as a base, the author has analyzed the critical success factors to support the modus operandi of a successful implementation of OBE. Issues relating to the intended learning outcomes, teaching and learning activities, outcome-based assessment and graduate attributes were the focal point of the discussion and used as indicators towards developing managerial accounting students cognitive, psychomotor and affective skills. In this context, OBE is proven to improve the quality of teaching and learning, competitiveness among graduates and students' English language proficiency. Consistent with this review, the study also include other countries' success and failure outcomes along with its rationale.*

**Key words:** *outcome-based education, critical success factors, intended learning outcomes, teaching and learning activities, assessment, graduate attributes*

### Introduction

This review analysis involves the application of Outcome-Based Education (OBE) in *managerial accounting* for first year students at *Lingnan University* (LU), Hong Kong. The objectives of the said study include (a) improving the quality of teaching and learning; (b) fostering progress toward four-year degree in business administration; (c) ensuring international competitiveness among graduates; and (d) responding to employers' need for English language proficiency and creativity in problem solving abilities. This study, as per (d) above, is intended to bring about graduates who have high level of skills in communication, critical thinking, problem solving, and other workplace skills. Also, this review analysis includes OBE practices in the other parts of the world.

Review of literature indicates that OBE is concerned with curriculum designing and ensuring that the contents, delivery, activities and assessments are all aligned to each other to help facilitate students attain the intended learning outcomes (Willies & Kissane, 1995); a way of designing, delivering, and documenting instruction in terms of its intended goals and outcomes (Spady, 1988); a transformational innovation in education where objectives are tied to learners' outcomes, core curriculum, mastery learning and criterion-reference assessments (Capper & Jamison, 1993); and deployment of objectives based on the desired changes in the learner (King & Evans, 1991). To support the attainment of success in OBE, five key elements are vital. They are: a) a clearly defined outcomes, b) well designed curriculum, c) effective delivery instruction, d) documentation of results, and e) identification of advancement (Spady, 1994). Mastery of topics is essential for the students to possess skills that will not only conform to the intended learning outcomes but also build the future of the students.

In OBE, students' performance is monitored based on predetermined learning outcomes that are usually measurable. Cognitive thinking and skills are examples of outcomes that are measurable. However, the affective outcomes such as values, feelings, attitude and emotions of students are somehow not easily measurable as they are difficult to quantify. In this instance, students may fail to substantiate the required performance in both short and long terms. This could be the turning point where OBE is not favored by some quarters. A measurable outcome is one of the critical success factors of the OBE curriculum design.

Towers (1996) endorses four (4) critical success factors (SCF) of OBE which are comprised of (a) clear identification of the course scope and contents; (b) the students progress based on their demonstrated achievement; (c) multiple instructional and assessment strategies be made available to meet the needs of each student; and (d) adequate time and assistance be provided so that each student can reach the maximum potentials. These CSF may have varying degree of impact on the students who are recipients of OBE success.

At micro level, the student is bulldozed and dictated to acquire cognitive skills that the curriculum setters desire to offer. On the other end, the education policy makers would be able to direct students to certain specialization based on the level of achievement and propensity of the students. In these scenarios, it could be construed that OBE allows the designing of curriculum that tailors to varying groups of students' educational needs. With this in mind, OBE provides an opportunity to all groups of students to be successful in the chosen field of study. The students are well-trained, learned and confident upon graduation in preparation for their respective working lives.

### **OBE Implementation in Managerial Accounting Course in Hong Kong**

The LU implements OBE into the curriculum of the Business Faculty. To afford good OBE governance, it establishes a new body called the Standing Committee on Curriculum Review and Learning Outcomes Management (CRLOM) within the Business Faculty which is responsible for the curriculum development and modification including measurement of learning outcomes. This framework is similar to UiTM practices except that Lingnan University is small in scope as compared to UiTM that is quite diverse in scope and layout.

At LU, the OBE is applied in an introductory course in *management accounting* (MA) with the aim of improving both the lower and higher order thinking skills. Prior to its implementation, the Faculty of Business has modified its course description to align the desired course to the learning outcomes. It also takes into consideration the capabilities of the first year students in Bachelor in Business Administration. Thereafter, a course framework is designed for the students to (a) recognize the scope and purpose of MA; (b) discuss the design of cost accounting system as a provider of information to MA functions involving planning, controlling and decision-making; (c) emphasize on the development of accounting measures relevant for internal use in business enterprises; and (d) provide customized-measurements to maximize relevance to the management (decision makers). It is noted that the course framework is clear in its content which is one of the requirements to make OBE a success. Subsequently, the course framework is the basis for the setting of the course outcomes as well as the intended learning outcomes. The LU modus operandi on implementing the various key components of OBE implementation is discussed below:

#### **Intended learning outcomes (ILO)**

The CRLOM lays out the ILO to describe what the students can do upon completion of the introductory MA course. In the planning stage, each ILO is allocated a specific cognitive domain in the form of an action verb for the students to perform. The committee prepares a map showing the required cognitive action verb level for each ILO. Analyzing *Table 1* of the article, it can be deduced that the cognitive level of performance expected from each student covers both the lower order thinking skills (LOTS) and the higher order thinking skills (HOTS).

In LOTS, the committee uses action verbs to determine the knowledge and comprehension levels of the students. For example, the use of words (a) *list* and (b) *describe* to measure the students basic thinking skills related to the basic management accounting activities. As the teaching and learning progress, other sets of words are selected to measure HOTS of the students. The use of an action verb, *distinguish*, is used to measure another ILO. For instance, the students are required to distinguish behaviors of a variable and fixed cost. By this, the lecturer can determine those students who can determine the true behavior of a given cost item. The use of action verbs like *list*, *describe* and *distinguish* enables the students to acquire the thinking skills that are necessary to provide basic information to problem solving and decision making tasks in MA. At the end of the day's teaching and learning (TLA) activity, the lecturer will be able to pinpoint who can perform and who could not.

To effectively set the ILO, the committee that sets the contents and outcomes should keep abreast with the latest practices and changes occurring in the MA profession. This will assist them on evaluating the central contents as against the peripheral ones. The method of evaluation and re-evaluation of the contents of the syllabus is important to ensure the outcomes meet the needs of the industry and at the same time give full benefits to students. Nonetheless, the committee needs to consider the cognitive and physical abilities of the students in setting the ILO (Capper & Jamison, 1993). The students vary in terms of capabilities. There are students who understand and comprehend a learning topic but cannot perform accurately in the

assessments due to different life orientations and maturity. These factors may cause frustration and failures to this group. As a result, they may resort to memorization of the concepts to achieve a passing grade. This is a panacea that may demerit the OBE system if not corrected. On the other hand, the good MA students may find OBE limiting their inquisitiveness due to the fact that a continuously repeated process is evident in obtaining MA information. They are deprived of creatively handling surprises in other business management functions.

Business revolves around uncertainties; it is therefore necessary for MA students to be flexible in thoughts and in deeds. The adoption of linear thinking should not be inculcated in the early years of study. Similarly, a good practice dictates that the students, being the one of the direct stakeholders of OBE, should be involved in setting the ILOs making them equally responsible for achieving them. Alternatively, the lecturers should familiarize the students towards their responsibilities in the fulfillment of ILOs.

### Teaching and learning activities (TLA)

Once the ILO is developed, the CRLOM plans and designs the learning activities required to achieve the ILOs. The activities are centered to what they want the students to perform, carry out, and demonstrate at the end of each session. The committee sets the source of teaching materials including the teaching and learning activities (TLA). The TLA includes case discussions, project management, debates, computational exercises, writing analytical reports, problem solving and group games. An example of ILO TLA mapping is shown below:

Table I: Intended Learning Outcome and Teaching Learning Activities

ILO	Material	Teaching Activities	Learning Activities
Accumulate production cost and assign these costs to products under job costing, process costing and activity based costing	Process costing	Lecture Group games	(i) Read a case on process costing (ii) Compute costing of a functional activity

During the teaching and learning (TL) process, each student is expected to demonstrate the ability to perform the required tasks at mastery level. This enables them not only to achieve the ILO but also gain the required ability to move forward to the subsequent topics in the curriculum structure. In this instance, the university's prime function of providing an educational environment that is conducive to generating new ideas is now becoming geared towards providing vocational skills in the view of providing skills, knowledge and behaviors demanded at the workplace (Daggett, 1991). It disregards the role of the university in discovering new knowledge for future commercial development. Nothing is constant in the business environment, hence, the need for skill changes over time due to technology and demographic advancement. So, the academic curriculum is to spearhead the students to discover new commercially viable ideas that are innovative and creative. These should be nurtured in the University for Continuous Academic Growth.

Furthermore, when TLAs are highly focused on skill acquisition, it may lead to producing skillful graduates without the emergence of new discoveries as the universities are sidestepping student creativity that could be deployed in the future. In this instance, students are forced to conform to the job requirements in the industry but, in the long term, there may be an over supply of skillful graduates which the industry can no longer accommodate resulting to another bounce of high unemployment. It is imperative that the education policy makers and proponents of OBE balance the need of the business environment by regularly revising curriculum to make it relevant.

In other situations, where the students fail to meet the required outcomes due to deficient skill acquisition, extended time and effort is provided to these less performing students until the required mastery is attained. This will in turn require much effort and time for the lecturers to give assistance for the students to be successful in their fields. It is therefore, vital that the lecturers' teaching paraphernalia are clear and effective for the students to imitate the skills within the stipulated student learning time. Student learning time (SLT) is formulated with multiple rounds of refinement for the students to transform their own learning towards achieving the intended outcomes (Sariwati, 2009). SLT monitoring should be in place to ascertain that students meet the desired outcomes in every phase of their study.

It must be noted that the time taken to complete a bachelor program is lengthy and the chance of forgetting the learned skills is prevalent. Therefore, the university should employ a strategy for the students

to recall the learned skills such as the internship program. Based on observations, the internship program for accounting students are less effective as most companies entrust only selective accounting tasks to them. As such, the need for alternative options is highly recommended. It could be said, therefore, that OBE is not a standalone approach to mastery. The lecturers, as one of the direct contributors to the success of OBE, are to possess an undivided spirit of assistance in the best interest of the students' educational achievement.

### Outcome based assessment (OBA)

In OBA, the CRLOM establishes a range of authentic assessment tasks to test the cognitive, skills and affective domain acquisitions of the students. In each task, the student's ability to use correct English language skills, information processing, critical thinking, problem solving and decision-making are assessed based on certain sets of criteria. An extract of OBA is shown below:

Table 2: Assessment Criteria

Assessment Task	Description	Assessment Criteria
Case discussion	Students are expected to read textbook material and prepare for case discussion.	Evaluated according to: Identification of case issues Communication of argument Problem solving skills Critical thinking skills

The above-mentioned assessment framework is geared to encourage the students to reflect and develop a capacity for enquiry and reasoned judgment (critical thinking). Spady and Marshall (1991) indicate that the university controls the conditions for success of the students. It aims that every student achieves success. The author's observation indicates that when students are able to identify and evaluate MA issues in a given exercise using reasoned judgment, this indicates an outstanding academic performance. MA topics are not straightforward, as such when they can execute the functions of the managers at the early years of business studies; this signifies that the students have utilized the LOTS and HOTS. In addition, the students are able to understand the language jargons used by managers. At this point, it could be said that the students have managed to assimilate the skills and knowledge in problem solving which is necessary to succeed in the corporate world (Capper, 1993a).

In a non-OBE compliant situation, Al-Twaijry (2010) claims that the Saudi Arabian students' performance in MA is very weak due to the fact that it is not a straightforward subject. However, this finding has not considered teaching styles, course content and assessment structure. Compared to LU's OBE success as stated earlier, it is evident that OBE is indeed contributing positive skills among students in MA.

OBE can be flexible depending on the needs of the students. Spady (1994) suggested that OBE can either be implemented in (a) a traditional setting that focuses on students' mastery of the program, (b) a transitional scenario which focuses on higher order competencies such as the one required in MA, and (c) a transformational way that builds capabilities of young people to do complex tasks. Thus, OBE benefits are aplenty but its success depends upon the commitments of its stakeholders – the setters, implementers, doers and facilitators.

### Graduate Attributes

As mentioned earlier, LU's intent on OBE is to mould students into achieving the desired attributes upon graduation. The author believes that OBE frames the implementer to set ILOs that force the students to undertake the desired TLAs. This process contributes to the accumulation of the desired attributes from the onset to the full completion of the Bachelor in Business Administration. Results of this study indicate that OBE is helping the students achieve gradually those graduate attributes. It should be noted that a few of these attributes are subjective or qualitative in nature, as such regular monitoring is necessary to gauge the students' transformation of values in handling MA issues. In totality, it can be said that OBE adoption in Hong Kong is successful.

## Other countries' OBE practices: a comparison

### Australia

Australia is not successful in implementing the OBE. Griffin (1998) concludes that OBE cannot be fully implemented on a system wide basis as the teachers oppose to radical changes in the curriculum design. The teachers are devastated by the excessive number of curriculum outcomes and tired of going through the long list of what should be taught and recording individual students' assessments as a result of adopting OBE. There seems to be difficulties in synergizing the needs of the teachers and students in classrooms and what the student can actually do as opposed to the educational policy makers' (EPM) intention of achieving high standards for all. The external pressure posed by the EPM to the overloaded school teachers made them opt for other innovative approaches to teaching, assessment and reporting. In lieu of OBE, they preferred to adopt the so-called Standard Approach as practiced in the American education system. This approach focuses on direct instruction and explicit teaching and the curriculum is a teacher-directed one.

### United States of America (USA)

The OBE is a failure at the primary school level in the USA. The Phyllis Schlafly Report from 1993 to 1994 indicates that OBE implementers are highly focused on using subjective outcomes making it difficult to measure. Many of the goals are affective that concerns attitudes, values, feelings and emotions rather than academic achievements. The Americans despise ambiguity. It is evident that when OBE outcomes are vague and non-quantifiable, the socio-cultural attributes of the teachers dictate and influence the future of OBE implementation.

On the contrary, higher education in the USA has successfully implemented OBE. The *American Accounting Association* conducts a pilot study on OBE in the accounting discipline and the results indicate that there is an exhaustive documentation of the relevance of OBE to accounting programs (Baker, 1994). Likewise, OBE is applied with success in the field of food science where the *Institute of Food Technologists (IFT) Education Standards* requires assessment methods that are based on specified outcomes. To make every stakeholder abide by the OBE principles, it provides a guide book for easy transition (Hartel and Gardner, 2003). Similarly, OBE is successfully implemented in the medical schools to ensure that graduates achieve the desired skills. Among the OBE benefits are flexibility, easy integration of basic and clinical sciences and adoption of innovation that is essential for continued viability of the medical science educational structure (Smith & Dollase, 1999).

### United Arab Emirates

*Zayed University* implements OBE in its information technology curriculum and results indicate success. The students' learning activities are guided by predetermined learning outcomes. Lansari, et al. (2007) report that OBE helps foster an atmosphere of learning in classrooms.

## Conclusion

OBE is not a standalone technique in education as it has to align its curriculum with the industry requirements. It requires clearly defined ILO, effective teaching methods and timely delivery, TLAs that cater to student abilities and assessment methods that are criterion-based. The lecturers must apply the principles of clarity of focus, high expectations, expanded opportunity and design down principles consistently, systematically, creatively and simultaneously in the classroom to achieve operational success. Unlike the primary and secondary education, OBE is successful at the higher educational levels. LU proves its success in the fields of accounting. Many other universities offering medical, dental and food technology disciplines are equally successful in transforming students towards achieving the desired thinking levels, behavioral skills and affective values that are valuable in meeting the needs of the industry.

## References

- Al-Twajjry, A. A. (2010). Student academic performance in undergraduate managerial accounting course. *Journal of Education for Business*, 85: 311-322.
- Baker, R. F., Gabbin, A., Izard, D., Jacob, F., & Polejewski, S. (1994). Summary of outcome assessment. *Journal of Accounting Education*, 12 (2): 105-114.
- Capper, C.A. (1993a). *Education administration in a pluralistic society: a multiple paradigm approach*. Albany, Sunny Press, 7-35.
- Capper, C. A., & Jamison, M. T. (1993). Outcome-based education reexamined: from structural functionalism to post structuralism. *Educational Policy*, 7(4): 427-446.
- Daggett, W. R. (1991). Preparing students for the 21<sup>st</sup> Century. *International Center for Leadership in Education*. Retrieved from [www.LeaderEd.com](http://www.LeaderEd.com).
- Griffin, P. (1998). Outcomes and profiles: changes in teachers' assessment practices. *Curriculum Perspectives*, 18(1): 9-19.
- Hartel, R. W., & Gardner, D. (2003). Making the transition to a food science curriculum based on assessment of learning outcomes. *Journal of Food Science Education*, 2 (2): 32-39.
- King, J. A., & Evans, K. M. (1991). Can we achieve outcome-based education? *Educational Leadership*, 49(2): 73-75.
- Lansari, A., Tubaishat, A., & Al-Rawi, A. (2007). Using outcome-based education information technology curriculum and an e-learning platform to facilitate student learning. *Issues in Informing Science and Information Technology*. 4: 461-471.
- Sariwati, M. N. (2009). *Curriculum Review on business management program towards realization on outcome-based education*. Universiti Teknologi MARA, Malaysia.
- Smith, S. R., & Dollase, R. (1999). AMEE Guide No. 14: Outcome-based education: part 2-planning, Implementing and evaluating and competency-based curriculum. *Medical Teacher*. 21 (1): 15-22.
- Spady, W. G. (1988). Organizing for results: the basis of authentic restructuring and reform. *Educational Leadership*, 46.
- Spady, W., & Marshall, K. J. (1991). Beyond traditional outcome-based education. *Educational Leadership*. 49: 67-72.
- Spady, W.G. (1994). *Outcome-based education :critical issues and answers*. American Association of School Administrators, Arlington, VA.
- Towers, J. M. (1996). An elementary school principal's experience with implementing an outcome-based curriculum. *Catalyst for Change*. 25(2): 19-23.
- Phyllis Schlafly Report. (May 1993). What's wrong with Outcome-based Education? .
- Willis, S., & Kissane, B. (1995). *Outcome-based education-a review of the literature*. Prepared for the Education Department of Western Australia.

---

NORLAILA ABDULLAH  
Universiti Teknologi MARA (Pahang).  
norlailabdullah@pahang.uitm.edu.my.