UNDERSTANDING THE READINESS OF IMPLEMENTING OUTCOME-BASED EDUCATION AMONG SELECTED HIGHER EDUCATION INSTITUTIONS IN PHILIPPINES

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Abstract: *To meet the challenges of globalization, high technology, economic transformation, and international competitions in the new century, there have been numerous educational reforms and initiatives in many countries in the Asia-Pacific Region and other parts of the world (Cheng, 2005). The Philippines along with the other members of the ASEAN region are faced with these challenges. The current study has been designed to understand the readiness of selected HEIs in the Philippines as they embark to adapt a new educational system that is grounded in outcomes based education (OBE). This quantitative study shows that these institutions are moderately familiar with the concepts, processes and standards on OBE implementation. Among the initiatives identified to ensure the success of OBE implementation, sending of faculty for training and workshops ranked first. It shows that the HEIs strongly agree to the principle that OBE –based instructional strategies expand the motivation or purpose of technology beyond awareness and understanding levels. The identified principles supporting the level of importance in the development of OBE based instructional materials are perceived as extremely important. Internet sites are recognized as learning resources and are regarded as extremely important. The HEIs very frequently use the other forms of assessments except direct assessment. The majority of the HEIs only very frequently use assessment practices. These results aim to assist educational leaders in addressing the areas of weaknesses in order to successfully implement OBE.*

Keywords: *Readiness, outcomes based education, assessment, instructional strategies*

1. INTRODUCTION

The integration of the ten ASEAN member states as a region brings about potential opportunities and challenges as it thrives to be a global center of growth. Undeniably, education is considered as a unique positive force in national and regional development, as such, in a circumstance as important as integration, it is an area wanting of massive transformation. Some major discourses influencing educational transformation include, but are not limited to the internationalization of degrees, mobility and accreditation. Along these initiatives, the educational system as a whole and the individual HEIs in particular must be able to prepare their organization in welcoming and adopting new practices that would make them compete and flourish in the region. In answer to this transformation challenge, The Commission on Higher Education (CHED) in the Philippines continues to work towards harmonized higher education environment by initiating bold initiatives, including the shift to outcomes based education (OBE)

from the traditional form of education . Visionary exit outcomes" - what we want students to know and be able to do on leaving school-should go beyond narrow subject requirements to embrace the skills and knowledge that will best allow students to lead effective and productive lives in a high-pressure global culture (McNeir,1993).

Since the implementation of such approach is relatively new in the country, HEIs need to greatly adjust in order to remain current with the regional and global trends. But before instituting change, it is always of great value to understand the readiness of these HEIs in implementing OBE. This study presents results of Sixty (60) surveyed HEIs across the Philippines offering IT Education programs. Readiness in this context is the state of the preparedness of the HEIs to meet the requirements to operate in an OBE environment. The readiness is not a synonym for ability, but rather a measure of the HEI's current proximity to a desired state. Being able to understand at the onset the readiness factors or elements is an essential step for the successful implementation of an OBE environment. It is at this stage where institutions can assess their own strengths and weakness, consequently, these institutions will be better prepared or ready in addressing the implementation concerns of an OBE environment.

2. Methodology

The study was conducted in 2014-2015. A total of 60 Higher Educational Institutions representing were considered for the survey, however valid data from only 45 respondents were obtained. Purposive sampling was done in obtaining the sample for the said survey since only the Higher Education Institutions (HEIs) offering Information Technology (IT) programs were considered for the study. Observations and interviews were likewise conducted to validate the results.

A questionnaire was developed by the researchers based on literature review and OBE information. A series of questions along different aspects involving the implementation of Outcomes-Based Education (OBE) was designed to elicit responses based on a 5-point Likert Scale. The data obtained from the questionnaire was treated using frequency count and the weighted mean procedure. There are 5 sections, namely: familiarity on OBE essentials, institutional level of OBE implementation, attitude towards the development and importance of OBE strategies, use of instructional resources and attitude on assessment.

3. Results and Discussion

In understanding the readiness of the HEIs to implement OBE, their familiarity with general concepts, resources and processes have been evaluated. Table 1 presents the results.

3.1 Familiarity on OBE Essentials

Experience has shown that major reforms in education that operates on new standards and guidelines bring about the development of new cultures, concepts, processes such as evaluation and assessments. While there exist various concepts, resources and processes involved in the implementation of the OBE environment, only a few general essential items have been chosen in this study. General concepts include the items principles of OBE, the definition of outcomes, blooms taxonomy, competencies and performance indicators. Processes include curriculum mapping, assessment and continuous quality improvements. The items on Handbook on CHED typology , the quality assurance systems, the OBTL strategies fall under resources. Familiarity

on these essentials translates to how well the respondents are aware of the measured items either by having learned about it or having personally experienced/ utilized the items before.

Table 1: Level of Familiarity with OBE concepts, process, standards, and guidelines on OBE implementation

Concepts / Resources / Processes	Weighted Mean	Descriptive Interpretation
Principles of Outcomes Based Education	2.83	Moderately Familiar
Definition/Levels of Outcomes (Graduate Outcomes, Program Outcomes, Course Outcomes)	2.71	Moderately Familiar
Blooms Taxonomy	2.84	Moderately Familiar
Curriculum Mapping	2.76	Moderately Familiar
Forms of Assessment	2.64	Moderately Familiar
Handbook on CHED Typology, OBE and ISA	2.51	Moderately Familiar
Quality Assurance Systems	2.51	Moderately Familiar
Performance Indicators	2.71	Moderately Familiar
Continuous Quality Improvement	2.73	Moderately Familiar
OBE Teaching and Learning Strategies	2.70	Moderately Familiar
Competencies	2.88	Moderately Familiar
Overall	**2.70**	**Moderately Familiar**

It can be gleaned from the preceding table that the respondents are moderately familiar with the concepts, processes, standards, and guidelines on OBE implementation. Among the identified aspects, Competencies obtained the highest weighted mean of 2.88. For most of the faculty and administrators of the respondent HEIs, their understanding of the OBE concepts, resources and processes are mostly introduced from orientation and from meetings that they have attended. Thus, this justifies why generally the respondents are moderately familiar with these items. Considering that the OBE is a relatively new initiative taken by CHED, it will take a while for these institutions to fully understand the concept, resources and processes and to really use them in the teaching and learning process. However, the use and implementation of OBE have already been deployed by many HEIs across the globe, and thus this already presupposes a variety of existing resources that can serve as guides for those who would like to improve on their knowledge on the concepts and their application of the processes using these resources.

3.2 Institutional Level of OBE Implementation: Initiatives

The initiatives taken by the department or institutions to which the respondents of the study belonged to were also a concern of the study. The obtained data are summarized in Table 2 below.

Table 2: Practical Initiatives that are taken by department or institutions to ensure the success of OBE Implementation.

Initiative	Frequency	Percentage (n=45)
Send faculty for training / workshops on OBE	38	84.44
Conduct OBE Training / workshop in the	34	75.56

institution.		
Create a Committee to Handle Institutional OBE Initiative	27	60.00
Gather and review OBE materials	29	64.44
Network / Consultation with Experts	25	55.56
Conduct Department / School meeting on OBE	28	62.22
Others.	4	8.89

The paradigm shift from traditional to an OBE approach would need a lot of will and enormous effort to embrace new concepts and new skills. To swing current mindset to the new ways, bold and practical institutional initiatives must be undertaken and supported. Based on observation and interview with the early adopters of the OBE approach, some practical first step initiatives have been identified. Among the initiatives identified to ensure the success of OBE implementation, the sending of faculty for training or workshops on OBE ranked first as it was recognized by 84.44% of the respondents in the study. Since the OBE implementation affects not only the programs, but the entire educational approach of the institution, initiatives must be institutional in nature in order to have a systemic change that would be instigated at the top level and trickled down to the lower level. It will never be enough and it is entirely a wrong approach to expect the movement to start at the program level. It is worthy to note that program outcomes must be moored and aligned with the institutional outcomes and thus this reiterate the vital role of top institutional leaders.

3.3 Attitude Towards Development of OBE-Based Instructional Strategies

OBE assumes a certain approach to delivering and assessing learning. There is a shift from the teacher being at the center of the learning process to the students being at the center of the learning process (Biggs et al, 2011). This obviously necessitates a change in the strategies of delivering instruction. In order to respond to the change in an effective way, a change in perspective must first happen. These are usually guided by principles. Table 3 presents a consolidated list of principles anchored on the guiding principles for development and implementation of instructional strategies (Henak 1991, Robert 2000) and the guiding points for planning and teaching strategies. Table 4 presents how the respondents consider the level of importance of these principles.

To be able to implement such principles, one must be in total agreement with it and consequently consider them as extremely important. The results would show how well the respondents agree on these guiding principles. It is shown that the respondents' strong agreement to the principle that OBE – Based instructional strategies extend to the purpose of technology to go beyond the awareness and understanding levels, and enter into the application and learn from mistakes. This principle, among others, obtained the highest weighted mean of 4.27. The respondents also strongly agreed that OBE – Based instructional strategies create environments where students encounter a more authentic problem – cantered experiences simulated or real industrial/environmental settings and apply the heuristic method practiced by professionals in the field. They also strongly agreed that, in order for the students to successfully reach the desired outcomes, learning activities that actively involve students should be planned for this activity heightens arousal and makes performance more efficient; and, they should consider how information technology can support learning and teaching.

Efforts must be exerted and that more concept and skill exposure must be done in order to convince teachers to change perspectives in some areas. These include perceiving students as active self-directed learners, treating them more like colleagues rather than as merely recipient of student activities and requirements such as lectures, assignments and grades. There must also be a shift in structure and approach of ITE curricula. The change from subject-based and teacher-directed to problem-based and student-directed is imperative because teaching activities are not experienced as subjects; teaching activities consist of a series of problems that need to be solved. Both items received the lowest weighted means. The majority of the teachers of the ITE (IT Education) Programs are not teachers by profession, but are teaching ITE programs because they are graduates of the program and that they possess the requirements for teaching the program as mandated by CHED. The requirements only mandate that the faculty teaching the ITE program must have the respective ITE degree which does not include education courses. The educational principles of teaching and most especially the principles of Outcomes Based Education is therefore a totally new concept. As teachers may not be familiar with the pedagogical principles, convincing them to agree to new ways of doing things might be a challenge. On the average, the respondents somewhat strongly agreed to the identified principles as indicated by the obtained overall weighted mean of 4.07.

Table 3: Level of Agreement on the guiding principles of teachers with the end view of developing instructional strategies that would aid students of different learning styles to successfully reach the desired outcomes.

Principle	Weighted Mean	Descriptive Interpretation
1. View students as active self-directed learners and treat them more like colleagues rather than as receivers of lectures, assignments and grades.	3.63	Somewhat strongly agree
2. Include the processes used in technical systems to apply knowledge, discover new knowledge, solve problems, and learn from mistakes.	4.05	Somewhat strongly agree
3. Extend the purpose of technology to go beyond the awareness and understanding levels, and enter into the application and learn from mistake.	4.27	Strongly Agree
4. Create environments where students encounter a more authentic problem-centered experiences in simulated or real industrial / environmental settings and apply the heuristic method practiced by professionals in the field.	4.25	Strongly Agree
5. Reduce individual and competitive learning environments and increase the use of collaborative group learning experiences in which heterogeneous teams are created, leadership is distributed, positive interdependence is present, and social skills are acquired within an autonomous group.	3.84	Somewhat strongly agree
6. Change the structure and approach of ITE curricula from subject-based and teacher-directed to problem-based and student-directed, because teaching activity is not experienced as subjects. Instead, teaching activity consists of a series of problems that need to be solved.	3.89	Somewhat strongly agree
7. Sound knowledge is based on interconnections – connecting new learning with old. Encourage students to create conceptual structures which integrate their new and old learning.	4	Somewhat strongly agree
8. Develop meta-cognitive skills by being explicit about learning and maximizing students' awareness of their own knowledge construction through structured reflection.	4.09	Somewhat strongly agree
9. Plan learning activities that actively involve students. Activity heightens arousal and makes performance more efficient.	4.25	Strongly Agree
10. Consider how information technology can support learning and teaching.	4.45	Strongly Agree
Overall	**4.07**	**Somewhat strongly agree**

Table 4 shows that the respondents viewed all except two of the enumerated principles as extremely important in the development of OBE based instructional materials. The first item is a validation of the earlier result where the respondents only somewhat agree to the principle. To have a successful departure from this working perspective, the principles of self directed learning

and strategies for teaching ICT courses anchored on self-directed learning must be prioritized. Endeavours towards developing more collaborative activities and instructional materials and lessening competitive learning environments will address also the concern on the second item. Overall, the respondents perceived these principles as extremely important in the development of OBE – based instructional materials as indicated by the overall weighted mean of 4.41.

Table 4: Level of Importance in the development of OBE based instructional materials along the following principles.

Principle	Weighted Mean	Descriptive Interpretation
1. View students as active self-directed learners and treat them more like colleagues rather than a s receivers of lectures, assignments and grades.	4.12	Moderately Important
2. Include the processes used in technical systems to apply knowledge, discover new knowledge, solve problems, and learn from mistakes.	4.36	Extremely Important
3. Extend the purpose of technology to go beyond the awareness and understanding levels, and enter into the application and learn from mistake.	4.49	Extremely Important
4. Create environments where students encounter a more authentic problem-centered experiences in simulated or real industrial / environmental settings and apply the heuristic method practiced by professionals in the field.	4.55	Extremely Important
5. Reduce individual and competitive learning environments and increase the use of collaborative group learning experiences in which heterogeneous teams are created, leadership is distributed, positive interdependence is present, and social skills are acquired within an autonomous group.	4.18	Moderately Important
6. Change the structure and approach of ITE curricula from subject-based and teacher-directed to problem-based and student-directed, because teaching activity is not experienced as subjects. Instead, teaching activity consists of a series of problems that need to be solved.	4.35	Extremely Important
7. Sound knowledge is based on interconnections – connecting new learning with old. Encourage students to create conceptual structures which integrate their new and old learning.	4.4	Extremely Important
8. Develop meta-cognitive skills by being explicit about learning and maximising students' awareness of their own knowledge construction through structured reflection.	4.49	Extremely Important
9. Plan learning activities that actively involve students. Activity heightens arousal and makes performance more efficient.	4.53	Extremely Important
10. Consider how information technology can support learning and teaching.	4.58	Extremely Important
Overall	**4.41**	**Extremely Important**

3.4 Attitudes Towards Assessment

Assessment is the measurement of what students are learning. Student achievement is defined as how well they've mastered certain target skills. Assessments provide educators with both objective and subjective data in order to ascertain student progress and skill mastery (Ronan, 2015). The philosophy behind assessment for learning is that assessment and teaching should be integrated into a whole. (McNamee and Chen 2005) The following table presents the data pertaining to the attitude of the teacher-respondents towards assessment. Results show that among all the forms of assessment, the direct assessment is always used with a weighted mean of 4.22. Most of the examples presented under the direct assessment are the traditional types that assess the student performance such as mastery of skills. On the other hand, indirect measures assess opinions or thoughts about student knowledge, skills, attitudes, learning experiences and perception.

All the other forms of assessment, is perceived to be very frequently implemented. On the average, as indicated by the overall weighted mean of 3.96, the teacher respondents perceived the assessments to be very frequently implemented along the aspect of assessment. The power of assessment does not come from intricate technology or from using a specific assessment instrument. It comes from recognizing how much learning is taking place in the common tasks of

the school day – and how much insight into student learning, teachers can mine from the assessment material (McNamee et al, 2005). The type of assessment also depends on the teaching learning activities, thus the measure of how frequently an assessment is used become immaterial in this context. While the results show that mainly the assessment always used is the direct assessment, this does not mean that this is the most important. Table 7 affirms that all the other forms of assessment are extremely important.

Table 6. Level of Implementation of OBE along the aspect "Forms of Assessment"

Forms of Assessment	Weighted Mean	Descriptive Interpretation
Direct Assessment.	4.22	Always
Indirect Assessment.	3.72	Very Frequently
Qualitative Assessment.	3.58	Very Frequently
Quantitative Assessment.	4.06	Very Frequently
Formative Assessment.	4.00	Very Frequently
Summative Assessment..	4.17	Very Frequently
Overall	**3.96**	**Very Frequently**

Table 7. Level of Importance of the forms of assessment in the implementation of OBE

Forms of Assessment	Weighted Mean	Descriptive Interpretation
Direct Assessment.	4.65	Extremely Important
Indirect Assessment	4.47	Extremely Important
Qualitative Assessment	4.32	Extremely Important
Quantitative Assessment.		
Formative Assessment	4.56	Extremely Important
Summative Assessment	4.62	Extremely Important
Overall	**4.52**	**Extremely Important**

4. CONCLUSION

From the results of the study, it was seen that leaders and/or teachers of the Higher Education Institutions (HEIs) offering IT programs that were surveyed are moderately familiar with the concepts, process, standards, and guidelines in the implementation of Outcomes-Based Education. Before any change in process and structure can occur, being able to understand the concepts and the processes behind the change is crucial. This is usually a first step in preparing / readying an institution and its constituents to an eventual change. In this particular case, being moderately familiar connotes a level of content knowledge. With the moderate familiarity, emphasis on initiatives that would make the institution leaders and faculty to be even more familiar with these OBE concepts must be given consideration in order for a successful implementation of Outcomes-Based Education. Understandably, the initiative is relatively new in the Philippines, thus, capitalizing on the local materials and local experts would complement institutional initiatives.

The results show that on the average, only somewhat strongly agreed with the identified OBE guiding principles that would aid in the development of instructional strategies. However, said

principles were somehow considered to be extremely important in the development of OBE instructional materials. The finding that the respondents are moderately familiar with the concepts is a contributing factor in the attitude of the respondents towards the development of OBE instructional strategies. The state of not being fully familiar with the essential OBE concepts, resources, and standards influences the attitude of the respondents. An element of reservation takes into play when one does not fully comprehend the important essentials.

Lastly, the different forms of assessment are generally very frequently used by the respondents in evaluating learning among the students. The consistent use of different forms of assessment should be of great consideration in order to accommodate variation in learning styles of the students since the alignment between teaching and assessment is strongly emphasized in Outcomes-Based Education. Given these results, HEIs must prepare their organization in seizing opportunities to overcome the challenges in implementing a full OBE environment. Policy makers must also develop training materials and additional resources to assist these institutions along the areas identified.

The requirements of implementing OBE include and are not limited to familiarity with OBE concepts, initiatives undertaken to address OBE requirements, possessing the appropriate attitude towards assessment and the development of OBE strategies and assess, and also the use of instructional resources. While the areas can extend, this study limited its scope in these basic elements and only to institutions offering ITE (IT Education) programs. Future studies should therefore delve into the actual implementation of the OBE using other areas. For a wider perspective, the study may be extended to schools offering other programs.

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