Perspectives on outcome-based education among faculty members teaching business courses at a Philippine university

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ABSTRACT

The implementation of outcome-based education (OBE) is often controversial especially among faculty members who are tasked with implementing the requisite changes that come with the new system. The study aimed to describe the knowledge, attitudes, and perspectives of members teaching undergraduate Accountancy, Administration, and Business Administration courses at a state university in the Philippines regarding OBE. A descriptive qualitative study design was used. A focus group discussion was conducted with all faculty members with at least one-year experience teaching undergraduate accountancy- or management-related courses at a state university in the Philippines. From the FGD, an anonymized transcript was generated, which was analyzed thematically. Most faculty members satisfactorily defined what OBE is. However, when asked what their role is in an OBE learning environment, they were not able to provide conclusive answers. They think that OBE is a necessary upgrade to the traditional system, and is needed to keep education competitive in the face of ASEAN integration. Most participants claimed that they are ready to embrace OBE, but a few expressed reservations towards it. Furthermore, they suggested various improvements for the faculty, the learning infrastructure, and ways to ensure that OBE is implemented well. These findings underscore the need for trainings and dissemination of best practices for OBE implementation, as well as systemic changes in the college to which the faculty members belong to ensure optimal implementation of OBE.

Keywords: Accountancy Education; Business Administration Education; Office Administration Education; Outcome-based Education

INTRODUCTION

Owing to globalization and paradigm shifts in higher education, the Philippines is transitioning from traditional, input-based education to outcome-based education (OBE) (CHED 2012; Llanes 2014). In the traditional system, the focus is mostly on educational input and improving quality of instruction without much regard for any learning outcome. Furthermore, this system is teacher-centered and controlled (CHED 2014). On the contrary, OBE necessitates that the outcomes, or what the learning program intends for

its students to learn or do at its end, is defined first. Once these outcomes are defined, the curricula or syllabus, the pedagogical methods and instruction, and even the methods of assessment are tailored specifically to ensure that the outcomes or goals of the learning program are achieved (Harden 2009). As compared to the traditional system, OBE is learner-centered and learner-controlled (CHED 2014).

In other countries, the implementation of OBE has seen mixed results. Its application on the basic education systems in some areas of the United States, Australia, and South Africa have been perceived as failures, where it was rescinded shortly after its implementation (Donnelly 2007; Lui and Shum 2012). In Australia, the implementation of OBE was seen as one of the reasons for the resignation of secondary school teachers. These teachers thought that OBE was detrimental to education (Fetherston and Lummis 2012). In addition to these, OBE is perceived to set unreasonable learning outcomes and place extra burden on limited school resources and workload of education staff (Donnelly 2007; Lui and Shum 2012). In contrast, its implementation in higher education is more successful, especially in the fields of medicine (Harden 2009), veterinary medicine (Davis 2015), information technology (Lansari et al. 2007), and even in managerial accounting (Lui and Shum 2012).

In the Philippines, there are some studies that document the implementation of OBE and their initial effects. Some studies discussed the experiences of entire higher education institutions (HEI) (Llanes 2014; De Guzman et al. 2017), while some studies focused on the application of OBE to specific subjects such as engineering (Borsoto et al. 2014; Laguador and Dotong 2014), health education (Sana et al. 2015), and industrial psychology (Espiritu and Budhrani 2015). A common finding in these studies is a positive initial experience with OBE, though problems, such as the lack of knowledge of the nuances of its operations, remain.

The contemporary focus on OBE research in the Philippines is due to its recent institutionalization in Philippine higher education (CHED 2014). Despite this, none among the prior studies or government reports show statistics on how many HEIs or programs have actually adopted and implemented OBE, not to mention the extent of its implementation. Furthermore, it is also notable that despite its institutionalization, qualitative studies that explore the depth of perspectives and/or attitudes of faculty members teaching undergraduate business- and management-related courses in Philippine state universities are lacking.

Given the institutionalization of OBE in Philippine HEIs, and the controversy surrounding its implementation on other settings, it is necessary to know the sentiments and perceptions of its main implementers (i.e., the faculty members) so as to address any problem and ensure the success of its implementation. Addressing the dearth of research for this population group

and particular field of study, this exploratory and descriptive study aimed to document and explore in-depth the sentiments and perceptions of these individuals regarding OBE. Specifically, the study aimed to: (1) describe their knowledge and perceptions of OBE; (2) explore their perceived roles in OBE; (3) identify the changes they are implementing to ensure optimal implementation of OBE; (4) characterize their readiness in implementing OBE; and (5) solicit suggestions to ensure optimal implementation of OBE.

METHODS

Research Design

The study is a descriptive, qualitative study which aimed to explore and document the knowledge, attitudes, and perceptions of faculty members of a constituent college of a state university in the Philippines regarding the implementation of OBE for undergraduate business and management courses. A qualitative study permits researchers to understand the feelings, sentiments, perceptions, and perspectives of individuals (Austin and Sutton 2014), and is therefore the most appropriate method to answer the research question of the study. All academic personnel (e.g. instructors, assistant professors, associate professors and professors) who have at least one-year experience in teaching undergraduate courses in Accountancy, Business Administration, and Office Administration in a constituent college of a state university of the Philippines were invited to participate in the study.

Data Collection

A topic guide was prepared by the author to discuss the following: (1) knowledge about OBE; (2) role of faculty members in OBE; (3) their perceptions on the implementation of OBE, specifically elaborating on the question of whether it is a necessary upgrade to the current Philippine higher education system, or an unnecessary disruption to the status quo; (4) changes they intend to do in their respective departments and courses in line with the implementation of OBE; (5) their perceived readiness and the readiness of their respective departments for the implementation of OBE; and (6) their suggestions to improve their personal readiness and their department's readiness for OBE. This topic guide was used in the focus group discussion (FGD) for the study.

The FGD for the study was conducted on June 2015. All faculty members (n=9) participating in the study were given a chance to discuss each of the topics that were listed on the guide. The proceedings of the FGD was tape-recorded. From this record, a transcript of the proceedings of this FGD was generated. To maintain the anonymity of responses, personal identifiers were removed.

Data Analysis

The anonymized transcript was analyzed thematically. *A priori* themes used in the analysis correspond to the topics structured in the topic guide: (1) knowledge about OBE; (2) role of faculty members in OBE; (3) their perceptions on the implementation of OBE; (4) changes they intend to do in their respective departments and courses in line with the implementation of OBE; (5) their perceived readiness and the readiness of their respective departments for the implementation of OBE; and (6) their suggestions to improve the personal readiness and their department's readiness for OBE. Where appropriate, *a posteriori* themes and sub-themes were formulated and categorized from the results of the FGD. Coding of vignettes according to the nodes was carried out by the author and a research associate. All analysis was carried out in NVivo 10 (NVivo 2015).

RESULTS

Description of Study Participants

There were nine participants in the FGD; five of them were instructors, two were assistant professors, and two were associate professors. The youngest respondent was 23 years old while the oldest was 53 years old. Three of the participants are male while the rest are female. Three respondents handled courses in Office Administration, two handled courses in Business Administration while four handled courses on Accountancy.

Introduction to the FGD Findings

Vignettes of this FGD were presented according to the *a priori* themes listed earlier, starting with the knowledge of the respondents regarding OBE, followed by their perceived roles in the OBE learning environment, their attitudes towards OBE, and the changes they deemed necessary for the implementation of OBE. This is followed by a discussion of the preparedness of the respondents for the implementation of OBE at the personal and at the departmental level. Lastly, their suggestions to improve their personal readiness and their respective department's preparedness in implementing OBE was also explored.

There were no new themes arising from the FGDs, and these *a priori* themes were listed as subsequent first-level headers in this section. However, three *a posteriori* subthemes emerged from the FGD: (1) Suggestions to improve the readiness of faculty members in implementing OBE; (2) Suggestions to improve other aspects of learning, and (3) Suggestions to ensure optimal implementation. These subthemes were categorized under the theme *Suggestions to improve readiness in implementing OBE*.

Knowledge about OBE

Most of the faculty members sufficiently defined OBE according to its usual definition. Other definitions of OBE given by faculty members are listed below:

"A multi-disciplinary, student-centered, holistic educational paradigm focusing on skills development and character formation towards producing world-class graduates"

"A system of education... that requires the students to actually demonstrate desired learning outcomes."

"...focusing on how the student can achieve the desired learning outcome and not just 'passing' or 'failing' a given exam".

"...acknowledgment that each student has his/her unique learning style and the teacher's role is to see that uniqueness, respect it, and use it to achieve the outcome."

Role of Faculty Members in OBE

As compared to when the faculty members were asked about their knowledge on OBE, in which most respondents answered, only a few faculty members elaborated on their perceived role in an OBE learning environment:

"...engagement of students in activities that lead them to embody the outcomes set by the teacher" "As teachers, we should (be) focusing on (developing) values, attitudes skills and readings of the students to make them

attitudes, skills and readiness of the students to make them ready in their respective practices of profession."

Regarding this role, they were asked what general outcomes are expected of them as they embrace outcome-based education. When asked how they would want their students to be as they finish their education:

"We aim to produce well-rounded graduates by allowing them to learn, not just didactically but through performing in class and producing output."

Perceptions on the Implementation of OBE

When asked if OBE is a necessary upgrade to the current Philippine higher education system, or an unnecessary disruption to the status quo, all respondents concurred that it is a much-needed upgrade to the traditional didactics used by the Philippine higher education system. In discussing their perceptions, they benchmarked the traditional system against what is used and recommended by the Association of Southeast Asian Nations (ASEAN). Overall, they perceived that the traditional system does not produce globally-competitive graduates and that the Philippines need to upgrade towards OBE

to be at par, not just with other members of the ASEAN, but also with other countries in the world:

"(OBE) helps students become more competent in their field of concentration, and enhances their skills to be able to compete with (the graduates of) other ASEAN countries. The current educational system of the Philippines produces graduates that are far behind that of other ASEAN countries; the graduates are intelligent, but not capable of producing tasks or outputs that the workplace needs."

"This change can help our students develop the necessary competencies as we want them to perform the desired actions/skills."

"It is mandatory in the ASEAN integration; thus the Philippines should do it. Furthermore, it is necessary that students should possess the necessary skills and competence that they may be ready for life after school; thus HEI's should focus on the right outcomes in the development of their students."

While maintaining a general positive attitude towards OBE, one faculty member expressed guarded optimism regarding its implementation and institutionalization:

"In order for us to produce world-class graduates and highly desirable human resource (and to contribute towards a) globally-competitive workforce, OBE should be implemented in the country. But changes should be introduced slowly, not abruptly."

Another faculty member opined that while attitudes towards OBE are generally positive among them, there is one greater question that takes precedence above all else if they are to make OBE a reality in their college:

"While indeed it is a much-needed change, understanding on our part is necessary, as well as sacrifices. Probably, it is not important whether we have positive or negative attitudes towards OBE; the better question would be whether we are willing to make the necessary sacrifices to make OBE a reality."

When asked whether the respondents are indeed willing to make the necessary sacrifices to make OBE a reality, they were unequivocal in committing to integrate OBE to their pedagogy.

Changes to be Implemented in Response to OBE

All faculty members said that OBE is not an entirely new concept to them. However, they stressed that changes have to be implemented once OBE is fully institutionalized. Faculty members handling various courses in Accountancy, which is heavily reliant on practical knowledge, asserted that they have incorporated what is currently known as OBE vis-à-vis the traditional system as they deem it necessary for the students to master some competencies at the end of the course:

"OBE is not a new approach to the Accountancy department. Even during the implementation of the teacher-centered approach, we are already incorporating outcome-based approach in accounting where students are required to make an output to every activity such as preparing financial sheets, conducting audits or consultancy engagements."

Even if OBE is not a new concept for those who teach Accountancy, they agreed that some changes are necessary despite this:

"Somehow, the department (of Accountancy) had been applying part-and-parcel of what is (known as) OBE. We will just need to check and align the individual course outcomes to the national goals so that we can be considered ready for OBE."

On the other hand, faculty members handling courses in Office Administration have started to work towards aligning their curricular offerings towards competency-based outcomes patterned after the vocational offerings of the Technical Skills Development Authority (TESDA), the government agency mandated in monitoring and providing trainings and technical and vocational skills in the Philippines. They justified that this move is seen to increase the qualifications and hone the skills of its graduates. Furthermore, they opined that from now on, graduates of the Office Administration program are not just expected to have university degrees, but also qualifications based on various competency-based skills relevant to Office Administration.

"The department's preparation for OBE has been started already. The department carefully constructs its new program curriculum to match the new system; integrating more activities and assessments."

"The department is currently revising its curricula to align with the competency-based curriculum of TESDA. We are encouraging students to take national assessment examinations in different TESDA programs."

The respondents who handle Business Administration courses, meanwhile, focused their immediate changes in improving syllabi and methods of delivery:

"Right now, syllabus for each subject has been revised to include activities for a more effective learning experience and to include a clearer set of goals/outcomes that are learner-centered."

"(We seek to) change (the) syllabi of course offerings. That for every lesson learned by the students, they should know how and when to apply that particular lesson."

Readiness in Implementing OBE

While majority expressed their personal readiness to implement OBE, some expressed reservations on the matter. With regards to the readiness at the department level, everybody said that they have been integrating OBE, albeit in a piecemeal manner in their everyday teaching.

"My colleagues had been employing OBE techniques in their respective classes. Implementing OBE in all of their classes is not so far-fetched."

"Before the OBE have been introduced, I do believe that I'm already practicing OBE in my class. I see to it that after completing the course, my students must possess certain skills, qualities and attitudes."

"Personally, I believe that the department (of Office Administration) is ready for OBE implementation. In fact, our students have already started and are able to have a National Certification in Front Office (from TESDA). And we are looking forward for another kind of national certificate in the coming semester."

Summarizing the need for readiness and the readiness of almost all respondents, one faculty member opined:

"We are ready and we should be ready to be in-line with the ASEAN integration. We would also like our students to be ready for ASEAN integration."

Suggestions to Improve Readiness in Implementing OBE

While most respondents claimed that they are ready for OBE, they still had suggestions on how to ensure seamless transition to the full-fledged adoption of the OBE paradigm. They opined that these suggestions are necessary to ensure that the implementation of OBE will bring out the best

for both the faculty, the college, and the students. These suggestions were categorized into three subthemes: (1) *Suggestions to improve readiness of faculty members*; (2) *Suggestions to improve other aspects of learning*; and (3) *Suggestions to ensure that OBE is implemented well*.

Suggestions to improve the readiness of faculty members in implementing OBE. To improve the readiness of faculty members in implementing OBE, they suggested more avenues for professional development (e.g. in the form of trainings or postgraduate scholarships). Furthermore, they emphasized that the CHED, the Philippines' regulatory agency for tertiary education, should provide more trainings and provide more avenues for sharing best practices:

"I suggest for more OBE-related trainings, especially for methods of delivery and assessment, for the faculty." "I think that the CHED should play a more active role in implementing OBE through trainings, providing universities with best practices and experiences of other institutions that have successfully integrated OBE..."

In addition to the increased involvement of CHED and trainings, a respondent also brought up how academic freedom should be maintained in the era of OBE:

"The academic freedom of the faculty is to be maintained and respected; learning in business cannot be restricted to the four walls of the classroom. The students should be afforded all the opportunities they could to learn about their field of interest in the form of immersions, community involvement and other forms of informal learning."

Suggestions to improve other aspects of learning. Some faculty members argued that for the transition to OBE to be successful, it is not only them that need to change in preparation for the full-scale implementation of OBE. In particular, they suggested improvements to the current learning infrastructure, overall curriculum, and method of delivery:

"Improve the On-the-Job Training (i.e. practicum) program, not just towards local industry partners, but the college should work into establishing ties with international industry partners. We as a college, should also emphasize practice-oriented teaching."

"Acquire more up-to-date technology, buy more computers and improve laboratories. More major offerings should be placed to accommodate the dynamic business landscape. Large classes should be reduced as it hampers with the

teaching-learning environment. Both the student and teacher should be comfortable in their learning environment. The faculty should also keep himself/herself abreast with new information in the dynamic business field" "The faculty of the college should be able to design instructional materials that is in-line with OBE."

Suggestions to ensure optimal implementation. In addition to improvements among the faculty and other aspects of learning, some faculty members suggested that there should be a means to ensure that OBE is implemented well and quality assurance standards are met.

"...and providing forms of assessment frameworks so that the college will have an objective guide in implementing OBE."

"We should be able to have ourselves assessed whether what we are doing in the OBE is right or wrong. We should contact accreditation agencies and align ourselves to global standards."

DISCUSSION

The study aimed to describe the perspectives of faculty members teaching Accountancy, Office Administration, and Business Administration courses at a state university in the Philippines regarding OBE. Most faculty members satisfactorily defined what OBE is. However, when asked what their role is in an OBE learning environment, they were not able to provide conclusive answers. They think that OBE is a necessary upgrade to the traditional system, and is needed to keep the college competitive in the face of ASEAN integration. Most participants claimed that they are ready to embrace OBE, but a few expressed reservations towards it. Furthermore, they suggested various improvements for the faculty, the learning infrastructure, and ways to ensure that OBE is implemented well.

CHED formally defines OBE as "an approach that focuses and organizes the educational system around what is essential for all learners to know, value, and be able to do to achieve the desired level of competence" (CHED 2014). Considering that almost all respondents gave a definition similar to this, it can be said that the respondents can define OBE well. However, some participants gave responses which may be different as to how CHED defines OBE. As such, it should be clear to everyone, especially to faculty members implementing it, what OBE is, and what OBE is not.

When the respondents were asked to discuss the definition of OBE, they were noticeably quiet, save for the definitions they discussed earlier. The

role of faculty in OBE as "designers of learning methods and environments, developers of competencies and talents of students, producers of student learning and success, empowering learners, and promoters of shared governance, teamwork and individuality" and as "facilitator of learning" (CHED 2014). While some participants gave satisfactory answers, their relative silence may indicate a knowledge gap on the practical aspects of OBE. This finding is similar to the findings of other local studies, which posit that while knowledge of OBE among faculty members are excellent, knowledge about their specific roles may be lacking (De Guzman et al. 2017). These underscores the need for the dissemination of more information, with the role of faculty members in OBE as a starting point.

At the time of the study, HEIs around the country were rife with discussions on the implications of the ASEAN Economic Community, which was formally established six months (The ASEAN Secretariat 2017) after the FGD was conducted. The respondents thought that Philippine HEIs are losing their edge in producing globally-competitive graduates and need to be reformed if it were to produce graduates that will be competitive even in the face of ASEAN integration. These concerns were not misplaced; even Philippine education experts remark that there is a pressing need to (1) increase the relevance and quality of education for Filipinos and (2) increase the competitiveness of Philippine HEIs in the global scale (Bautista 2016).

The specific changes being or had been implemented in preparation for OBE that has been documented in this study are positive signs that the institution is implementing changes to be in-line with OBE. CHED introduced OBE in 2014 to ensure the competitiveness of Philippine HEIs and their graduates (CHED 2014). These reforms are in-line with the establishment of the ASEAN Economic Community, which may necessitate changes in the educational systems in the region to maintain the global competitiveness of individuals in a dynamic labor market. These improvements may include, but are not limited to, changes in national educational paradigms, methods of pedagogy, delivery and assessment, as well as level of governmental support to education (McCarthy 2013). However, the implementation of these changes begs an evaluation as to whether or not these changes have really led to an increase in the competitiveness of the institution or its graduates.

While most study participants expressed eagerness for OBE, some have expressed reservations. These misgivings may have stemmed from the simultaneous introduction of OBE and other educational reforms (i.e., K-to-12) in the country (Bautista 2016). This may have led some respondents to perceive that changes are being done hastily without particular regard to whether these reforms are actually being implemented well. These sentiments imply that there may be a need for appropriate scaling and/or timing of the implementation of reforms so as to ensure the success and sustainability of its implementation.

In a recent memorandum, CHED continues to guarantee the academic freedom of universities and colleges. However, there are notable exceptions such as: "maintaining minimum unit requirements for specific academic programs, general education distribution requirements as determined by CHED, and specific professional subjects as may be stipulated by the various licensing entities" (CHED 2011). The raising of this concern by a faculty member further emphasizes the need for dissemination of information, this time, pertaining to academic freedom and its limits in the context of OBE.

Other aspects of learning that ought to be improved include classrooms and class sizes, computers and other learning infrastructure, faculty development, and building of institutional linkages, both local and international. The rationale behind these suggestions is that OBE implementation might be below par if fundamental deficiencies in the current system are not addressed. Classes in the college are often large where there may be more than 40 students in a class. While there is no specific figure that can be considered as an optimal student-to-faculty ratio, in general, smaller classes are better as students receive more attention from the teacher and there are more interactions between students and teachers (Blatchford et al. 2011). Decreasing class size implies that the college should build more classrooms, buy new computers and other equipment, and hire more faculty members. Similar recommendations are also given by another local study, which suggests pedagogical changes and investments to infrastructure to ensure optimal implementation of OBE (Custodio et al. 2017).

Regarding faculty development, faculty members are encouraged to apply to the various scholarships being offered to faculty members of various HEIs, especially the K-to-12 transition program (Higher Education Development Center 2016). Building of institutional linkages were suggested to provide more options for students in their practicum, which will give them the option to hone their skills in top business and management firms locally and internationally. The responsibility of fostering institutional linkages ultimately falls under the purview of the college and university management. however, alumni can play a vital role in building this, especially if they are working with the companies with which their alma mater is hoping to build institutional linkages with.

While there may be no definite frameworks yet to monitor and evaluate OBE implementation as of the time of the FGD, this perception of the study participants should be corrected. Currently, there is now a validated assessment framework used for the accreditation of HEIs in line with OBE (De Lara 2017). Nevertheless, this only highlights the need for the dissemination of information especially in the practical and implementation aspects of OBE.

The greatest caveat in interpreting the findings of this study is the tendency of the respondents to give more favorable responses while being studied or observed (Oswald et al. 2014). Termed Hawthorne effect, this bias often plagues studies which rely substantially on subjective and/or observational data. While the author of the study did her best to guarantee the anonymity of the respondents and their immunity from any responsibility that may arise from the things they discussed in the study, there might still be Hawthorne effect despite these efforts. Another important limitation that should be considered in interpreting the results of the study is that there was no opportunity to triangulate these findings with data collected through other means. The nature of the data collected (e.g. personal sentiments, etc.) precludes any form of triangulation; hence, it was not performed. Furthermore, the highly-specific study population may prevent generalization of its findings to other contexts. Nevertheless, its findings may be useful in the development of other research hypotheses concerning the implementation of OBE.

The most salient recommendations of the study focused on trainings and/or disseminations of best practices and information regarding OBE. These trainings and/or dissemination activities should include but are not limited to: (1) explaining what OBE is, and what OBE is not; (2) the role of faculty in OBE, including the limits of their academic freedom; and (3) new assessment frameworks for OBE. Prior to any training, a needs assessment may be carried out to determine which aspects of OBE should to be tackled indepth. Furthermore, considering that some faculty members raised the concern that reforms may have been introduced too quickly, there may be a need for government agencies tasked to implement education reforms to see if these changes are actually implemented well and to scale its implementation accordingly if needed. Other changes in the learning environment and infrastructures were also suggested to ensure optimal implementation of OBE.

Further research may focus on the assessment of knowledge, attitudes, perceptions, behaviors and preparedness of faculty members across several HEIs and disciplines to determine the extent of information dissemination that the CHED should undertake. An ever better recommendation would be conducting studies utilizing both qualitative and quantitative data. This will allow triangulation of qualitative data as well as enrich the findings of quantitative studies. Ultimately, there ought to be a monitoring of the implementation of OBE across all HEIs and degree programs to ensure that it is being implemented well. The evaluation of OBE implementation should know whether or not it helped higher education in the country to become more relevant to local and international needs, and whether or not it had really increased the competitiveness of Philippine HEIs and their graduates in the face of ASEAN integration. Considering that these two are the main reasons for OBE's implementation across the country, it is against these objectives that

the success of the OBE and its institutionalization in Philippine HEIs should be measured against.

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REFERENCES

- Austin Z and Sutton J. 2014. Qualitative research: getting started. The Canadian Journal of Hospital Pharmacy, 67(6): 436-440.
- Bautista MCR. 2016. K to 12 and the higher education reform agenda. Presented at the National Research Council of the Philippines Policy Forum.
 - http://www.nrcp.dost.gov.ph/presentations?download=166:dr-bautista-kto12-reform-agenda. Accessed on 3 March 2018.
- Blatchford P, Bassett P and Brown P. 2011. Examining the effect of class size on classroom engagement and teacher-pupil interaction: differences in relation to pupil prior attainment and primary vs. secondary schools. Learning and Instruction, (21): 715–730.
- Borsoto L, Lescano J, Maquimot N, Santorce MJ, Simbulan A and Pagcaliwagan A. 2014. Status of implementation and usefulness of outcomes-based education in the Engineering Department of an Asian University. International Journal of Multidisciplinary Academic Research, 2(4): 14–25.
- CHED (Commission on Higher Education). 2011. Revised guidelines in the formulation of CHED policies, standards, and guidelines of academic programs amending CHED Special Order No. 42 Series of 2003 otherwise known as "Guidelines for the formulation of policies and standards of academic programs." http://ched.gov.ph/cmo-2-s-2011/. Accessed on 3 March 2018.
- CHED (Commission on Higher Education). 2012. Policy standard to enhance quality assurance (QA) in Philippine Higher Education through an outcomes-based and typology-based QA. http://ched.gov.ph/cmo-46-s-2012/. Accessed on 3 March 2018.

- CHED (Commission on Higher Education). 2014. Handbook on Typology, Outcomes-Based Education and Institutional Sustainability Assessment.
 - http://www.ched.gov.ph/wpcontent/uploads/2014/06/Handbook%20 on%20Typology%20Outcomes.pdf. Accessed on 3 March 2018.
- Custodio PC, Espita GN and Siy LC. 2017. The Implementation of Outcome-Based Education: The Case of the University of Perpetual Help System DALTA Las Piñas Campus. Presented at the International Conference 2017.
 - http://www.vnseameo.org/InternationalConference2017/materials/12 _PerlitaCustodio_GinaEspita_LoureliSiy_Fullpaper.pdf. Accessed on 6 November 2018.
- Davis MH. 2015. Outcome-based education. Journal of Veterinary Medical Education, 30(3): 258-63. DOI: 10.3138/jvme.30.3.258
- De Guzman MFD, Edano DC and Umayan Z. 2017. Understanding the essence of the outcomes-based education and knowledge of its implementation in a technological university in the Philippines. Asia Pacific Journal of Multidisciplinary Research, 5(4): 64-71. http://www.apjmr.com/wp-content/uploads/2017/11/APJMR-2017.5.4.08.pdf
- De Lara MGO. 2017. Outcome—based program quality assurance accreditation survey instrument: its development and validation. The Normal Lights, 11(2): 1-30. http://po.pnuresearchportal.org/ejournal/index.php/normallights/art icle/view/525
- Donnelly K. 2007. Australia's adoption of outcomes-based education a critique. Issues in Educational Research, 17(2): 183-206. http://www.iier.org.au/iier17/donnelly.html
- Espiritu JL and Budhrani K. 2015. Implementing an outcome-based education (OBE) framework in the teaching of industrial psychology. Presented at the DLSU Research Congress. http://www.dlsu.edu.ph/conferences/dlsu_research_congress/2015/grc/GRC-I-001.pdf. Accessed on 4 March 2018.
- Fetherston T and Lummis G. 2012. Why western Australian secondary teachers resign. Australian Journal of Teacher Education, 37(4): 1-20. DOI: 10.14221/ajte.2012v37n4.1
- Harden RM. 2009. AMEE Guide No. 14: Outcome-based education: Part 1-An introduction to outcome-based education. Medical Teacher, 21: 7–14. DOI: 10.1080/01421599979969
- Higher Education Development Center (Philippines). 2016. About the K to 12 Transition. https://chedk12.wordpress.com/about-kto12/. Accessed on 4 March 2018.
- Laguador DJM and Dotong DCI. 2014. Knowledge versus practice on the outcomes-based education implementation of the engineering faculty members in LPU. International Journal of Academic Research in Progressive Education and Development, 3(1): 63-74. DOI: 10.6007/IJARPED/v3-i1/640

- Lansari A, Tubaishat A and Al-Rawi A. 2007. Using an outcome-based information technology curriculum and an e-learning platform to facilitate student learning. Issues in Informing Science & Information Technology, 4: 461-71. http://proceedings.informingscience.org/InSITE2007/IISITv4p461-471Lans361.pdf
- Llanes C. 2014. Adoption of outcomes-based education in the philippines: the TIP experience. Presented at the 2014 ASAIHL Conference, Singapore. http://conference.ntu.edu.sg/asaihl/Documents/PPTs/Parallel%20Ses sion%20PPT/4_1_1%20Cynthia%20C.%20Llanes.pdf. Accessed on 4 March 2018.
- Lui G and Shum C. 2012. Outcome-based education and student learning in managerial accounting in Hong Kong. Journal of Case Studies in Accreditation and Assessment, 2: 1-13 http://www.aabri.com/manuscripts/10562.pdf
- McCarthy R. 2013. UNESCO Office in Bangkok: ASEAN integration: let's not forget the implications for education. http://www.unescobkk.org/education/news/article/asean-integration-lets-not-forget-the-implications-for-education/. Accessed on 5 March 2018.
- NVivo. 2015. Version 10. Australia: QSR International.
- Oswald D, Sherratt F and Smith S. 2014. Handling the Hawthorne effect: The challenges surrounding a participant observer. Review of Social Studies, 1(1), 53–73.
- Sana EA, Roxas AB and Reyes, ALT. 2015. Introduction of outcome-based education in Philippine health professions education setting. Philippine Journal of Health Research and Development, 19(1): 60-74.
- The ASEAN Secretariat. 2017. ASEAN Economic Integration Brief, (1). Retrieved from http://asean.org/storage/2017/06/AEIB_No.01-June-2017_rev.pdf. Accessed on 5 March 2018.

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