DEVELOPMENT OF OBE-BASED TEACHING GUIDES FOR THE TEACHER EDUCATION COURSES

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ABSTRACT

With its end of facilitating the implementation of OBE in teacher education institutions (TEIs), the project aimed at developing outcomesbased education (OBE) teaching guides for teacher education courses. This paper specifically provides frameworks, specifically the Project Proposal Framework and the SPUP-OBE Framework which served as guides in coming up with the desired output. The Project Proposal Framework particularly details the processes to be undertaken in the development of the teaching guides while the SPUP-OBE Framework provides the content for the teaching guides. Furthermore, it presents the specific methods for the teachers' training on the principles and standards of OBE, the development of OBE-based teaching guides, the logical framework of the proposed teaching guide, the monitoring and evaluation plan, and the dissemination plan. This method includes the design, scope, tools, and analytical procedures for the specific processes involved.

Keywords: Outcomes-based education (OBE), OBE framework, teacher education, teacher training

INTRODUCTION

Outcomes-based education (OBE) and policies had evolved during the 1990s. Since then, educators worldwide have been increasingly focusing their efforts on what is being called 'outcomes,' 'competencies,' or 'standards' (Lam, 2009).

Educators play a major role in the implementation of OBE. Hence, it is important that they know what is required of them in an OBE classroom. According to Ramoroka (2007), the success of outcomesbased education depends on how well it is understood. It is essential that those involved in teaching, training, and human resources development understand the ways in which traditional education and training approaches must be capitalized on and enriched to effect outcomes-based learning.

By carefully and critically projecting OBE, educators could understand what is expected of them in the classroom. They will then know what to do in order to help learners achieve these outcomes. According to Spady (1993), what and whether learners learn is more important than when and how they learn.

In the project conducted at SPUP, with the deans, associate deans, program coordinators, faculty, as well as graduate students of the university who teach in other Teacher Education Institutions (TEIs) in the region as participants, the level of participants' understanding of OBE is only fairly satisfactory; most of these faculty members claim that they know what OBE entails, but they experience problems with its implementation, particularly in the preparation of teaching materials and other learning resources as guides to OBE-based teaching. It was found out further that there was a gap between what they knew and what they actually did in the classroom. As indicated in the project, about 60% of the participants are not actually prepared or competent in implementing OBE primarily because they do not have adequate resources/materials that will serve as a guide in implementing OBE in the classroom.

Potenza and Monyokolo, as cited in Jensen and Christie (1999), argued that the success of any new program/curriculum depends on training and support that teachers receive. Hence, if teachers acquire a comprehensive knowledge, understanding, and applications of OBE, then they will be equipped with the necessary skills that will facilitate the effective implementation of OBE in the classroom. This means then that teachers have to be effectively trained to be able to understand meaningfully OBE concepts, principles and standards as well as its challenges, how to utilize a variety of methods/strategies, and to prepare teacher support materials to facilitate the delivery of the lessons and to assess the extent to which outcomes have been achieved.

It is for these reasons that the project on "Developing OBE-Based Teaching Guides for the Teacher Education Program" was conceived. The project can be helpful to the CHED and curriculum planners as this serves to monitor whether high-quality standards are achieved and maintained, thus serving as a monitoring tool towards the effective implementation of OBE.

The project may also help teachers determine whether they can cope with this innovation or they need help. Learners can enhance their higher-order thinking skills and achieve the desired learning outcomes. It will benefit the parents as they interact with teachers in the learning process. Through this project, parents and the community can determine whether the implementation of OBE benefits their children and can help them to become responsible citizens.

Objectives of the Project

The project aimed at developing Outcomes-Based Education (OBE) Teaching Guides for Teacher Education courses to facilitate implementation of OBE in the Teacher Education Institutions.

Specifically, the project aimed to undertake the following:

1. Develop a project proposal framework for the development of OBE Teaching Guides for teacher education;

- Develop the SPUP-OBE framework which shall serve as a guide for instruction; and
- Present specific methods for the teachers' training on the principles and standards of OBE, the development of OBE-based teaching guides, the logical framework of the proposed teaching guide, the monitoring and evaluation plan, and the dissemination plan.

Project Proposal Framework

The researcher will go through the following stages in the development of the OBE teaching guides.



Figure 1. Framework for the project proposal

Stage 1. Establishing the Need for OBE-based Teaching Guide Development. The results of the needs assessment as well as the issues and concerns raised by the faculty of Teacher Education

Institutions which will be obtained from the results of the project on the implementation of outcomes-based education in the Teacher Education Institutions in Cagayan will serve as basis for the development of the OBE-based Teaching Guides for the Teacher Education program. Hence, the reason for the conduct of research to evaluate the implementation of OBE in the Teacher Education program, particularly with respect to the provision of instructional support materials.

Stage 2. Review of CMOs and Other Related Literatures/Studies. Based on the results of the project, a review of the CMO No. 46, series 2012, CMO for the Teacher Education Programs and other related literatures and studies on the development of instructional support materials will be conducted by the Teaching Guide developers. The results of the review will serve as inputs for designing the teaching guides.

Stage 3. Designing and Writing the Teaching Guides. The teaching guide developers will explore all possible information resources to enhance their knowledge and skills in the development of the teaching guides. Consultations with experts of the different professional education courses as well as discipline experts are essential as these will contribute to the enrichment and validity of the contents of the teaching guides in the professional education and content/major courses. After finalizing the design of the OBE-based teaching guides, the developers/writers will have to agree on their respective roles and assigned tasks as well as the mechanics of writing. Writing of the teaching guides will be done by groups and/or individually. The first draft of the completed teaching guides will be presented and reviewed by the identified panel of experts for professional education, content and major courses. The experts' recommendations will then be incorporated before the printing of the second draft.

Stage 4. Tryout of Sample Topics/Lessons (Validation) and Refinements. A tryout of sample topics/lessons will be conducted with Teacher Education students in some professional/content/major courses to further validate the content of the teaching guides in terms of the Teaching-Learning Activities (TLA) and Assessment Task (AT) and to assess the extent of achievement of the intended learning

outcomes. Findings and recommendations from the tryout will be incorporated in the third draft of the teaching guide.

Stage 5. Final Review/Editing/Evaluation. Further revisions/ refinements will be done on the teaching guides, and copies of these revised teaching guides will be forwarded to the project team lead and panel of experts/ consultants for their final review/evaluation. Further refinements and editing will be done on the teaching guides based on the recommendations of the panel and consultants.

Stage 6. Production of the Teaching Guides. The teaching guides will be finalized and printed out, and soft-bound copies will be produced for the Teacher Education heads, teachers/end-users, and other stakeholders.

Stage 7. Dissemination of Validated Teaching Guides. Dissemination of the validated materials will be done through seminars/workshops, teaching demonstrations, and/or meetings. The OBE-based Teaching Guides will be implemented/utilized starting the first semester of AY 2018-2019.

Stage 8. Monitoring and Evaluation. The implementation of the OBE-based teaching guides will be monitored periodically by the Teacher Education Dean, Associate Dean/Program Coordinator, discipline experts using a rubric-based monitoring tool developed by the teaching guide developers. Evaluation of the implementation of the teaching guides will be conducted through the use of survey questionnaires, rubric-based evaluation tools, as well as through qualitative method.

SPUP OBE Framework

Outcome-based education is a method of teaching that focuses on what students can actually do after they are taught or at the end of the period of schooling and what qualities should they possess when they graduate from the school or program (Lawson, 2007).

All curriculum and teaching decisions are made based on how

best to facilitate the desired outcomes. This leads to a planning process that is different from traditional educational planning. The desired outcome is first identified, and the curriculum is created to support the intended outcome. "We work backward from those primary objectives. "This is what we want to achieve, so what do we need to do to reach those objectives?" "What sort of people do we expect our graduates to be?" Hence, the focus is on outcomes. Curriculum planners could then proceed to plan the school curriculum or the program or project by working backward from those primary objectives.

Spady (1994) sees OBE as encompassing all students and that all can be successful in achieving the outcomes established by the educational system. He places major responsibility for the achievement of outcomes on the school and teachers: schools are expected to fulfill their obligation of equipping all students with the competence and qualities needed to face the challenges beyond the schoolhouse door.

OBE has four simple principles. The first principle, sometimes referred to as clarity of focus, emphasizes that the educational system should be organized so that teachers and learners can focus clearly, consistently, systematically and creatively on the important outcomes that learners are to achieve. To be important, outcomes should require "high-quality, culminating demonstrations of significant learning in context" (Spady 1994, p. 18). The second principle is called designing back, and it is inextricably linked to the first principle. It means that the starting point for curriculum design must be a clear definition of the significant learning that students are to achieve. Once this required learning has been defined, important instructional decisions can be made by tracing back from this `desired end-result' and identifying enabling outcomes that will assist learners to achieve the broader long-term outcomes. This does not mean that curriculum design or implementation should be simple linear processes, but it does mean that there should be direct and explicit links between all planning, teaching and assessment decisions and the significant outcomes that students are ultimately to achieve. The third principle of OBE is that teachers should have high expectations for all students; they should expect all students to achieve significant outcomes for high standards.

From this perspective, depth of understanding and intellectual rigor is not reserved for a few learners; they are expected of all learners. This provides a link to the fourth principle that teachers must strive to provide expanded learning opportunities for all learners in recognition of the fact that not all learners can learn the same things in the same way or in the same time

On the basis of these principles, SPUP has outlined an OBE framework that will be adopted and implemented throughout this project. The framework is described in terms of the following diagrams.





Figure 2. SPUP OBE framework

The development of the OBE teaching guides requires the involvement of varied stakeholders such as the faculty, students, alumni, industry practitioners/employers as their inputs and feedback are necessary for the identification and formulation of learning outcomes/competencies. A thorough review of the CMOs of the Teacher Education program, the requirements and standards of regulatory, accrediting and certifying bodies will also be conducted.

For proper alignment of the learning outcomes with the

institution's vision and mission, a review of the key concepts of the vision and mission, the program educational objectives, program outcomes, and course outcomes will be conducted. Hence, the first component of the Teaching Guide consists of the different matrices showing the mapping/alignment of the institution's vision and mission with the PEOs, POs, course outcomes and the alignment among these objectives/outcomes as well as with the specific learning outcomes for the different topics in every course.

The second component of the OBE teaching guide consists of the Learning Plan. The Learning Plan matrix consists of the Intended Learning Outcomes for every topic/lesson, course content/ corresponding topics, the teaching methods/strategies involving the 21st century teaching-learning methodologies, the specific teachinglearning activities to achieve the desired learning outcomes, the assessment tasks congruent to the desired outcomes together with the appropriate assessment tools that will be used to assess the extent of achievement of the learning outcomes, and the learning resources that will be utilized for the effective delivery of the course/ lesson. Updated references will be included in the teaching guide. A validation/verification tool will be attached to the teaching guide to ensure the content validity of the teaching guide. All rubric-based assessment tools will be appended in the teaching guides.

By the end of the year, the university, through the VP Academics Office will conduct an assessment on the utilization of the teaching guides in terms of its effectiveness in enhancing students' competencies. Program and course assessments will also be conducted periodically to measure the extent of implementation of the learning plan and the attainment of the desired learning outcomes as indicated in the OBE-based teaching guides. Based on the results of the assessment, interventions or enhancements will be designed and implemented and will be integrated into the teaching guides.

General Methodology on Teachers' Training on the Principles and Standards of OBE and the Development of the OBE-Based Teaching Guides

Design. The project will focus on teachers' training on the principles and standards of OBE and the development of OBE-based teaching guides that will serve to direct the TEI teachers in the effective implementation of OBE in the classroom.

Scope. The training phase will consist of lecture-discussion on OBE concepts, principles/methods, and standards while the development phase will involve small group workshops with the identified teaching guide developers on the development and utilization of teaching guides in the different courses of the Teacher Education program. The trainees will come from the different TEIs in the Province of Cagayan. The development of teaching guides will be done by selected faculty.

Tools. The training will make use of the CMO on OBE and the CMO for the Teacher Education Program, and some literatures and studies on OBE.

Analytical Procedure

- 1. Conduct of research on the implementation of Outcomes-based Education in the Teacher Education Institutions
- 2. Planning the development of Teaching Guide
- 3. Review of CMOs on OBE and the Teacher Education Program and exploring related literatures on teaching guide development
- 4. Designing/developing the teaching guides
- 5. Presentation of completed teaching guides to the panel of experts for critiquing/evaluation
- 6. Revision of the first draft by incorporating suggestions of experts
- 7. Tryout of sample lessons/topics by identified faculty members and random sampling of classes
- 8. Evaluation of the results of the tryout
- 9. Further refinements based on the results of the evaluation
- 10. Production of final draft
- 11. Dissemination to end users and interested stakeholders

12. Monitoring and Evaluation

Teaching Guide Development

The project will focus on teachers' training on the principles and standards of OBE and the development of OBE-based teaching guides that will serve to direct the TEI teachers in the effective implementation of OBE in the classroom.

The project generally aims to enhance the competence of teachers in the TEIs in implementing OBE in their classrooms. This will be done through the conduct of a seminar-workshop on OBE concepts, principles, methods, standards, and the development of teaching guides in the professional and specialization courses in the Teacher Education Curriculum

Methods in the Teaching Guide Development

Design/Model. The training design will cover three phases. The first phase will consist of a three-day stay-in seminar-workshop with the TEI faculty in the universities/colleges in the province of Cagayan. Lecture-discussions on OBE concepts, principles, methods and standards will be conducted on the first day and the remaining two days will be used for the parallel workshops on accomplishing the syllabus component of the teaching guide.

The second phase will consist of a 5-day workshop with the identified teaching guide developers on designing the learning plan, development and utilization of sample OBE-based teaching guides for the different Teacher Education courses. Parallel workshops will be conducted for the professional and specialization courses.

The third phase will engage the teaching guide developers for about a period of three months in developing the teaching guides for all the courses in both the professional and specialization courses. The first draft of the teaching guides will be presented to selected discipline experts for critiquing/evaluation. A tryout of sample lessons will be conducted after incorporating the suggestions of the panel of experts. Further refinement will be done before the final printout. Dissemination of the validated materials will be conducted through curriculum meetings, seminars/workshops, and sending soft copies to end users.

Scope. The project proposal on the "OBE-Based Teaching Guides for the Teacher Education Program" will focus on the development and validation of OBE-based teaching guides for the major courses as well as professional education courses such as the Theory/Concept courses, Methods/Strategies courses, Field Project courses, and special topic courses. More specifically, it will include the following courses:

Child and Adolescent Development Facilitating Human Learning Principles of Teaching 1 Principles of Teaching 2 **Curriculum Development** Educational Technology 1 Educational Technology 2 Assessment of Student Learning 1 Assessment of Student Learning 2 Social Dimensions of Education Seminar on Special Topics The Teaching Profession Field Project 1-6 Practice Teaching Developmental Reading 1 (for BEED and BSED) Developmental Reading 2 (for BEED only)

The project also includes the development and validation of all the teaching guides in the major/specialization courses, specifically in English (20 courses), Mathematics (20 courses), Science (20 courses), Social Studies (20 courses).

The project will also include training on the utilization of the teaching guides for the Teacher Education courses, particularly for the professional and specialization courses.

Analytical Procedure

- 1. Establishing the need for OBE-based materials development
- 2. Planning the intervention
- 3. Review of CMOs on OBE and the Teacher Education Program and exploring related literatures on teaching guide development
- 4. Designing/developing the teaching guides
- 5. Presentation of completed teaching guides to the panel of experts for critiquing/evaluation
- 6. Revision of the first draft by incorporating suggestions of experts
- 7. Tryout of sample lessons/topics by identified faculty members and random sampling of classes
- 8. Evaluation of the results of the tryout.
- 9. Further refinements based on the results of the evaluation
- 10. Production of final draft
- 11. Dissemination to end users and interested stakeholders
- 12. Monitoring and Evaluation

The project will focus on teachers' training on the principles and standards of OBE and the development of OBE-based teaching guides that will serve to direct the TEI teachers in the effective implementation of OBE in the classroom.

Logical Framework of Proposed Teaching Guide

Table 1

	Summary	Variable Indicators	Means of Verification	Assumptions
Input	Plenary Hall Session Rooms	Convenience of participants	Training Evaluation Results	Internet connectivity as a result of power
The resources	Multi-media			supply interruptions
(financial, physical,	Equipment	Degree of access to		or systems
etc.) that will be	Budget	multimedia facilities,		breakdown
utilized for the	-	equipment and		
production or operation of the		internet resources		
program such as		Adequacy of library		
budget, equipment,		and information		
or buildings.		resources		
		Adequacy of a		
		budget to fiancé the materials needed		
				(table continue

Logical Framework of Proposed Teaching Guide

(table continues)

Table 1 (continued)			
Activities The required production activities that will yield the needed output.	Session on reviewing OBE concepts, principles, standards and applications Workshop on formulating PEOs, POs, and other ILOS; presentation and critiquing of workshop outputs Workshop outputs Workshop outputs Occures to PEOs, POS; PEOs to POS, POS to Course Outcomes; presentation and critiquing of workshop outputs For the teaching guide developers: Workshop on the preparation of the Learning Plan for the identified teaching guide developers; presentation and critiquing of workshop outputs Parallel workshops on the preparation of teaching guides in the different TE professional and major courses offered in the university Evaluation of teaching guide by designated experts Try out of the materials and testing its effectiveness Refinement of teaching guides	Comprehensive and meaningful understanding of OBE concepts, principles and standards Well-formulated PEOs/POs/ Course Outcomes/ ILOs Appropriate alignment of vision, mission to PEOs/POs/; PEOs to POs and to Course Outcomes Appropriate, varied and meaningful teaching-learning activities and assessment tasks that enhance students' higher-order thinking skills Alignment of learning outcomes with strategies / teaching- learning activities and assessment tasks Updated references Evaluated teaching guides	Results of the evaluation of the teaching guides Results of the try-out with respect to their effectiveness
Outputs These are goods and services generated from the activities, and they usually take the form of tangible matter that the people/beneficiaries can use. These are within the control of HEI.	Validated teaching guides for the Teacher Education professional and major courses	Content-validated Relevant Useful Accurate	Results of Evaluation of the materials with respect to standards of materials development

(table continues)

Table 1 (continued)

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Outcomes The situation which the program aims to bring about. They are measured using demand-side data: access and utilization of outputs, and satisfaction of beneficiaries.	Enhanced implementation of OBE-based teaching and learning Effective and meaningful teaching and learning	Extent of implementation of the OBE-based teaching guide with respect to the attainment of objectives, utilization of the teaching- learning activities, utilization of assessment tasks, and degree of satisfaction of faculty in utilizing the OBE-based teaching guides A project on the effects/impact of OBE on students' performance	Periodic evaluation of the status of implementation of the teaching guides Impact project
Impact Contribution of the program to the country's overall development agenda	Enhances graduates' global competitiveness Boosts globally competitive knowledge economy Improves the quality of life	Global competencies as measured by rubric-based tools	Impact project

Monitoring and Evaluation Plan

Objectives

- 1. Track the status of implementation of the teaching guides and other required outputs systematically;
- Assess the effectiveness of the teaching guides in terms of the teaching-learning activities, assessment tasks, and the attainment of the desired outcomes;
- 3. Improve current management and utilization of the teaching guides to achieve desired results.

Method for the Monitoring and Evaluation Plan

Design. Monitoring and evaluation entail all the indicators, tools and processes that will be used to measure the extent to which the project has been implemented according to plan and the extent to which the project has achieved the desired results. Monitoring and evaluation of the development and implementation of the OBE-

based teaching guides will be conducted periodically (semestral and year-end evaluation) and will involve the Dean of the Teacher Education Institution, Associate Dean/Program Coordinator, discipline experts, identified faculty and students, and monitoring and evaluation team.

Qualitative/individual/group-based. Focus group discussions, individual/group interviews, class observations, and teaching demonstrations will be conducted to determine the status of implementation of all components of the teaching guide, the opportunities for improvement, and to address issues and concerns as regards the implementation of the teaching-learning activities and assessment tasks.

Quantitative methods. Rubric-based monitoring tools and survey questionnaires will be developed to assess the effectiveness of the teaching guides with respect to the implementation of the teaching-learning activities, assessment tasks/tools, the accomplishment of desired targets, and attainment of desired learning outcomes

Scope

- 1. Implementation of teaching guides in all professional, content and major courses will be monitored and evaluated;
- 2. Classes will be randomly selected for the conduct of class observations by the monitoring team;
- Evaluation by a random sample of students taken from each class will be conducted with regard to the skills/competencies they have acquired as well as the extent to which the teacher has implemented the teaching guide;
- 4. All faculty members implementing the teaching guides will be considered in the evaluation.

Tools. Rubrics, survey questionnaire, assessment instruments, individual/group interview guides, observations guides, reflective journals, teaching demonstration evaluation rubric

Analytical Procedure

- Determine the purposes, objectives, outputs of the monitoring and evaluation. Conducting monitoring and evaluation will help assess and demonstrate effectiveness in achieving the desired results and the impact on the lives of Teacher Education graduates and ensure accountability of the TEI administration, faculty, CHED, teaching guide developers and other stakeholders.
- 2. Agreeing on some guiding principles. It is useful to formulate some guiding principles to ensure that monitoring and evaluation are relevant, useful, timely, and credible.
- 3. Deciding on the persons/groups to be involved in the different stages of monitoring and evaluation. To ensure the relevance of monitoring and evaluation to stakeholders, it is important to consider their information needs, as well as the needs of the developers. There is, therefore, a need to identify the key internal and external stakeholders and decide how to involve them in the design, implementation, analysis and/or communication of the results of monitoring and evaluation.
- 4. Deciding the key issues and questions that are to be investigated. These often include organisational capacity/group processes in relation to needed resources (human, financial, technical), leadership and vision-mission, management (e.g., clarity about aims, objectives, roles, and responsibility; adaptability), costeffectiveness, etc.
- 5. Identifying the information/data that should be collected. Generally, information needed include the following: track and assess what has changed (both intended and unintended); understand the reasons for changes (i.e., what factors/ organizations/individuals have facilitated/constrained change; interpret the changes (i.e., teachers' and students' perceptions and experiences of change).
- 6. Deciding how the information/data will be collected. Formulate indicators and other data requirements. For each indicator, working out how the information will be collected (i.e., the information/data collection methods) is needed. This process therefore includes:

6.1 Determine methods for obtaining information on indicators;

- 6.2 Organize the data collection and analysis;
- 6.3 Assign responsibilities for information gathering;
- 6.4 Determine the time frame and frequency of data collection;
- 6.5 Organize critical reflection of events and processes;
- 6.6 Keep records of relevant secondary information to track changes in outcomes and impacts; and
- 6.7 Conduct periodic group workshops, discussions, focus groups, group ratings, periodic surveys (e.g., assessment of attitudes, performance).
- 7. Analyzing and using the information. Information is only useful if it is analyzed and put to good use. A key purpose of monitoring is to support decision making and planning; hence, it is essential that assessment, analysis, and using the gathered information/ data be ensured periodically.
- 8. Using and communicating the data collected. After analyzing the data, periodic internal meetings and/or workshops will be conducted to share, discuss, and interpret findings. Mechanisms for sharing results will be established, and the communication and reporting process will be developed as well.

Dissemination Plan

The dissemination plan involves the dissemination of the results of the research and the validated teaching guides to the end users and the interested stakeholders of the TEIs in the province

Design. The design includes the following:

- 1. Personal contact: Professional meetings for the presentation of validated teaching guides to the college faculty, academic administrators, and other interested stakeholders of the institution
- 2. Sending printed and soft copies of the teaching guides to the end users/implementers and other stakeholders
- 3. Curriculum review meetings/workshops
- 4. Publication in the University's Teaching Guides Manual

Scope. Involves all the developers, end users/implementers and academic administrators of the institution and other interested stakeholders

Tools. Printed materials/online

Analytical Procedure

- 1. Specify the end users/target audience.
- 2. Describe the activities that will be undertaken to reach the target audience.
- 3. Identify the tools/communication means that will support these activities.
- 4. Set out timing.
- 5. Evaluate mechanisms.

Sustainability Plan

- 1. Periodic review and evaluation of the teaching guides
- 2. Continual enrichment of the teaching guides
- 3. Conduct research on the effectiveness/impact of the teaching guides on teaching and learning.

CONCLUSIONS

The development of frameworks is instrumental in the effective implentation of projects. In this study, the general project development framework provides a clear direction of the stages in the development process from the identification of the inputs and the specific actions on the design of the project to the evaluation process. The SPUP OBE Framework serves as a guide for the instructional content, strategies, materials, and assessment tools that are to be included in the teaching guides. The Logical Framework of Proposed Teaching Guide provides a guide for the inputs, activities, outputs, and outcomes for the teaching guides. Moreover, the specific methods that define the design, scope, tools, and analytical procedure provides clarity of the processes involved in teaching guide development, as well as monitoring and evaluation, dissemination and sustainability of the project.

RECOMMENDATIONS

Based on the conclusion, the following recommendations are offered:

The teachers may use the different frameworks in designing their OBE lesson plans.

The academic unit heads may adopt the monitoring, evaluation, dissemination, and sustainability plan to ensure the integration of the OBE approach in instruction.

Future researchers may consider evaluating the effectiveness of the frameworks in the implementation of OBE approach in teaching.

References

- Commission on Higher Education. (2012). CMO No. 46, Series of 2012. Policy-standard to enhance quality assurance (QA) in Philippine higher education through an outcomes-based and typologybased quality assurance.
- Jansen, J., & Christie, P. (1999). Changing curriculum: Studies on outcomes-based education in South Africa. Juta and Company.
- Lam, S. (2009). Outcome-based approach to teaching, learning, and assessment in Geomatics higher education: The Hong Kong experience. Good Educational Practices. Surveyors Key Role in Accelerated Development. Retrieved from https://www.fig.net/ resources/proceedings
- Lawson, M., & Askell, H. (2007). Outcomes-based education. Williams Centre for the Analysis of Educational Futures Flinders University. Retrieved from https://www.eduhk.hk/obl/files/pratical_ guide_5.pdf

- Ramoroka, N. (2007) Educators' understanding of the premises underpinning outcomes-based education and its impact on their classroom assessment practices. Retrieved from http://www. archive.jfn.ac.lk/OBESCL/MOHE/OBE-Articles/Books-chapters-n-Reports/1.Assessment-n-QA.pdf
- Spady, W. (1993). Outcome-based education. Workshop Report, 5, Australian, Curriculum Studies Association, Canberra.
- Spady, W. (1994). Outcome-based education: Critical issues and answers. American Association of School Administrators, Arlington, Va. Retrieved from https://files.eric.ed.gov/fulltext/ ED380910.pdf