THE OBE JOURNEY IN TEACHER EDUCATION: SHIFTING MINDSETS, RE-ALIGNING OUTCOMES AND RETROFITTING ACADEMIC STRUCTURES

DR. THERESE MAY G. ALEJANDRINO
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A B S T R A C T

Objectives The study iidentified similarities and differences in ILOs, PLOs, and CLOs of CICM schools, as it identified indicators (anchored on Spady's principles) that were implemented towards successful OBE implementation.

Methods:The study employed the quantitative design through surveys, observations and responses to guide questions. The quantitative survey asked respondents to answer the questionnaire while the data obtained from the accomplished questionnaires were numerical description.

Results. Strengths in OBE implementation of CICM schools were: identifying outcomes, re-tooling of faculty/staff, giving of support for ICT-integration in instruction, strengthening commitment to sustain implementation, with the review, revision and enhancement of the syllabi and the grading system. CICM schools have to make orientation on OBE implementation more extensive, with students, stakeholders, parents… as participants. Alignment of learning outcomes with class activities/ exercises and the corresponding modes of assessment needs a more thorough review and implementation, while OBE Manual has to be finalized and well-disseminated.

Conclusion. OBE implementation is certainly a journey of shifting mindsets, re-aligning outcomes and retrofitting academic structures. Teachers' view on teaching had to shift from teacher-centered to student-centered, with emphasis on outcomes-focused assessments. Curriculum developers/ designers had toalign the delivery of instruction towards the attainment of learning outcomes while school officials/ policy makers/ program developers had to retrofit academic structures to support OBE implementation. Anchored on the findings of the study, the framework for the training program, the framework for the CQI Mechanisms and the OBTL Checklist for a sustained OBE implementation in Teacher Education were developed.

Keywords. Outcomes-based education, clarity of outcomes, designing down from ultimate outcomes, high expectations, learning opportunities beyond the classroom, training, professional development program, needs assessment, outcomes-based teaching and learning, outcomes.

INTRODUCTION

Background of the Study

Higher education policy formation is now more dynamic because of HEI's thrust towards becoming world class institutions (Kennedy, 2011). The ASEAN Qualifications Framework, the Bologna Process in Europe and other international standards of accreditation put pressure to Philippine colleges and universities to be engaged in "policy borrowing". Countries' involvement in policy-borrowing continuously emphasizes the relevance and practicality of educational models from the West, to reengineer institutions and to gain worldwide recognition. However, such recognition can simply be translated to the goal to improve and enhance student learning and teaching quality (Kennedy, 2011).

Outcomes-based education is one of those "policy borrowings" that has influenced curriculum reform. In Hong Kong, institutions experienced reforms in the curriculum by reviewing and realigning expected learning outcomes, vis-a-vis changes in learning activities and modes of assessment. Knowing what we want our students to learn, how they will learn and how to measure their achievements are the main objectives of outcomes-based education (Salter et.al, 2009).

In the Philippines, adoption of outcomes based education is a concrete example of "policy borrowing." The release of CHED Memorandum Order no. 37 Series of 2012, with the subject: "Policies, Standards and Guidelines in the Establishment of Outcomes-based Education (OBE) System in Higher Education Institutions Offering Engineering Programs," formally introduced outcomes-based education as a relevant educational system. Stronger support for OBE implementation across Higher Education Institutions in the Philippines was formalized through the release of CHED Memorandum Order no. 46 Series of 2012 entitled "Policy Standard to Enhance Quality Assurance (QA) in Philippine Higher Education through an Outcomes-based and Typology Based QA." The publication of the CHED Handbook on Typology, Outcomes-based Education, and Institutional Sustainability Assessment (2014) provided the needed guidelines in OBE implementation.

Schools founded by the Congregation of the Immaculate Heart of Mary (Congregatio Immaculati Cordis Mariae, CICM) namely: Saint Louis College, San Fernando, La Union; Saint Louis University, Baguio City; Saint Mary's University, Bayombong, Nueva Vizcaya; and University of Saint Louis, Tuguegarao City are recognized "Centers of Excellence in Teacher Education" (specifically Saint Louis College, Saint Louis University and Saint Mary's University) and Level IV PAASCU Accredited in Teacher Education (specifically University of Saint Louis). Said schools set new directions by integrating OBE system in SY 2013-2014, and the latter in 2009.

SLU conducted a Seminar on Outcomes-based Education, with the Academic Deans, Department Heads and Program Chairs, as the participants in school year 2013-2014. Full implementation of OBE followed in school year 2014-2015. It was in school year 2009-2010 that USL started integrating "Learning Outcomes" in the syllabi. A university-wide Seminar on OBE was conducted in school year 2014-2015. It was also in the same year that SMU and SLC conducted a seminar on OBE, with SLU as the lead implementer.

The CICM Provincial Committee on Education assigned school officials/ heads from Saint Louis University, Baguio City to spearhead the setting of directions towards OBE implementation in other CICM schools.

Outcomes-based education is an educational reform that is expected to bridge the gap between the competencies developed in higher education with the skills/ competencies needed in the workplace. It helps resolve an economic condition where graduates' competencies are not aligned with workplace demands (Goodman et. al., 2011). Thus, it poses a challenge to HEIs to understand how the progress of students' competencies may be objectively measured (Mullin, 2012), while modes of assessment are expected to become more effective and more efficient (Graham, 2012).

Adopting new educational practices such as outcomes-based education can be challenging, unless the faculty fully understand the relevance of the innovation, the needed skills to implement it, the attitude to change perceptions towards student-centered learning, and the needed reforms towards performance-based evaluation (Haviland et.al., 2010). It is through professional development programs that people understand proposed innovations and obtain the competencies to implement it (Haviland et.al., 2010), through collaboration and cooperation (Graham, 2012). Shift from teacher-centered to student-centered approaches in teaching and learning is needed, as teachers are trained on more effective

approaches to focus on the potentials/ abilities of students (Kaliannan & Chandran, 2012) for them to eventually master competencies (Neem, 2013). Such will also disprove employers' perception that higher education is too theoretical and realities in the workplace are ignored (Raehpour, 2013).

Varied degrees of preparation and experience of new faculty also require professional development programs that are customized or responsive to their diverse needs. The "principle of choice" is a key component for professional development programs to be effective, as one participant in the research of Boman stated, "it would be useful to offer a variety of sessions and allow people to sign up for what they feel would be most beneficial." "Just in time" learning is supported by the principle of choice because teachers learn more effectively when the training is given them, as they need it (Boman et.al., 2013).

The dynamic learning environment in the 21st century undoubtedly requires a responsive professional development program because of the changing roles and identities of professional staff (Graham, 2012). Since teachers are the key resource to achieve the strategic goals of institutions (Graham, 2012), development programs have to be research-based activities for teachers to obtain the needed specialization expected from them (Raehpour, 2013). Aside from the development of competencies, professional development programs also enhance professional learning communities among the faculty (Haviland, et.al., 2010; Silver & Leslie, 2009), as these also form academic identities found to increase faculty motivation, productivity and satisfaction (Liff et.al., 2012). However, even with the range of researches that have proven the positive impact of professional development programs to teaching performance (Broman, et.al., 2013; Boerboom, 2009; Gunersel et.al., 2014; Liff et.al., 2012; Light et.al., 2009; May et.al., 2011; Raehpour, 2013; Silver & Leslie, 2009), those professional programs did not focus on developing teaching competencies specifically towards outcomes-based teaching. Aside from the lack of professional development programs for OBE implementation, difficulties were encountered by policy implementers, and faculty to implement Outcomes-based education because of several factors: a) overemphasis to specify learning outcomes and limited focus/ discussion to identify effective approaches in OBE implementation; b) poor staff development programme and the failure of the faculty to fully understand/ appreciate the benefits of OBE; and the c) lack of understanding of the faculty to implement OBE (Harden, 2007). The need to have a significant investment in faculty development program for OBE implementation is further emphasized in Taber et.al's study (2010) for the faculty to fully understand a competency-based approach. Such is further

supported by Kennedy's study (2011) stating the need for a system-wide professional development program.

Another factor for failure or difficulty in OBE implementation is: the culture/ system in an institution may not be responsive to OBE implementation (Harden, 2007; Berlack & O'Neill, 2008; & Kennedy, 2011). Time and effort invested by the faculty in outcomes-based teaching may not be awarded/ supported (Harden, 2007) and lack of common understanding of what OBE is and how it is to be implemented in the classroom level (Berlack & O'Neill, 2008) are the other specific factors that contributed to poor OBE implementation. Thus, to continuously develop teaching skills of the faculty (towards OBE), development programs should also be readily available, yet customized, for them (Gunersel & Etienne, 2014). The program has to be ongoing, systematic and integrated, with opportunities for teachers to attend regular trainings instead of sporadic, unrelated, and non-progressive training programs (Haviland et.al., 2010).

From the researches that showed existing gaps in OBE, the researcher found inspiration to look into how CICM schools implement the said educational paradigm.

Statement of the Problem

The study investigated similarities and differences in ILOs, PLOs, and CLOs of CICM schools, as it identified indicators (anchored on Spady's principles) that were implemented towards successful OBE implementation. This research specifically aimed to answer the following:

1. What are the Institutional Learning Outcomes, Program Objectives, Program Learning Outcomes of the different CICM Schools?

2. What is the extent of implementation of OBE along the four principles of Spady?

3. What are the training needs of the Teacher Education faculty along Spady's principles for OBE implementation?

4. What are the preferred modes of delivery for faculty development?

5. What academic structures or processes support the OBE implementation in the Teacher Education Program?

6. What are the problems or challenges encountered in the implementation of OBE? What are the best practices / activities employed to resolve the problems?

7. What are the CQI mechanisms in place in the different CICM schools?

Significance of the Study

This research will be very significant for CICM higher education institutions in developing a customized professional development program for Teacher Education that is reflective, dynamic and progressive. It will provide the basis in identifying development programs and faculty trainings to equip teachers of the competencies, and even perspectives, towards outcomes-based teaching and learning. This will also provide a clear and systematic direction on how teachers can continuously develop their competencies and overcome limitations that hinder full implementation of OBE.

This research will also respond to a PAASCU recommendation to University of Saint Louis that professional development programs should be supported by research. Reforms in academic policies and structures may also be done after a more thorough evaluation whether relevant policies, practices and structures for the full implementation of outcomes-based education are being implemented or are still needed to be integrated in existing academic policies, systems or procedures.

Since the Higher Education Institutions involved in this research are recognized "Centers of Excellence in Teacher Education" (SLU, SMU and SLC) and "Level IV PAASCU Accredited Program in Teacher Education, (USL)," good practices that could be derived from research findings may be a good reference for higher education institutions' improvement in instructional practices, academic structures and processes.

Developing a customized Framework for OBE Implementation in Teacher Education (with emphasis on Professional Development Programs and CQI mechanisms) will be the major contribution of this study.

Underpinning Theory

Outcomes-based education has been alternately termed as: performance based education, standards-based education reform, systemic education re-structuring, competency-based education and high performance learning.

“Clearly focusing and organizing everything in the educational system around what is essential for all students to be able to do successfully at the end of the meaningful learning experiences” is how outcomes-based education is defined by Spady (Thomas, 2013).

A renowned advocate (proponent of OBE, also considered “Father” of OBE), William Spady believed in the need to have a transformational and paradigm shift in education. To achieve paradigm shift in education, He believes that there is a need to recognize collective responsibility as educational systems revise (or overhaul, if necessary) the organizational behaviour, the educational ideology it upholds, and the learning models it adapts. Institutions have to view learners as producers, not passive consumers, of knowledge. Institutions have to focus on the highest level of competence students are expected to have, and to continuously assess how those competencies are being developed (Thomas, 2013).

However, because many schools have not fully recognized the significance of clearly defined outcomes as basis to measure students’ performance, Spady proposes a “radical and systemic” change in schools. Spady challenges schools not to equate resources for students, with the level of competencies they may develop. Rather, outcomes should be the concrete basis of performance, not access to school resources. In implementing OBE, high expectations should be stated, opportunities should be provided, focus should be clear, and design down should be “applied consistently, systematically, creatively and simultaneously. Change in organizational structure may also be done to implement OBE. (Thomas, 2013).

OBE is a more future approach to education because it expects students to have the relevant knowledge, competencies and qualities for them to succeed even after formal schooling. This can only be made possible if the school’s academic structure, and operational policies allow students to maximize their skills/ competencies. It can become fully operational if the following premises are acknowledged by the institution/ professional staff: “that all students can learn and succeed, although not at the same time or in the same way; That successful learning promotes even more successful learning; and that schools control the

conditions that directly affect successful school learning" (Thomas, 2013). According to Spady, the four basic principles for the successful implementation of OBE are:

Clarity of Focus on Outcomes of Significance.
Knowing what students can really become and what competencies they are capable of developing (clarity of expectations) is needed for students to master competencies and eventually be recognized as experts (Thomas, 2013).

Instruction and Assessment should always be aligned with the attainment of the desired end state or outcome. Spady asserts that if the school, the learning opportunities, the periods for assessment is still based on time, then outcomes-based education is not really implemented. Effective implementation of OBE challenges institutions, with the academic staff, to be clear about expected outcomes. In the words of Spady, he views outcomes as: "Outcomes are clear learning results that we want students to demonstrate at the end of a significant learning experience. They are not values, beliefs of attitudes, or psychological states of mind. Instead, outcomes are what learners can actually do with what they know and have learned – they are tangible applications of what has been learned. This means that outcomes are actions and performances that embody and reflect learners' competence in using content, information, ideas, and tools successfully. Having learners do important things with what they know is a major step beyond knowing itself (Thomas, 2013)." Curriculum design is expected to be anchored on the outcomes, for the expected outcomes to be achieved.

The core objective of education is to prepare students for life and career after college. Delimiting students' performance to the "numbers" (scores) they get undermines the level of performance they are really capable of. Real or actual demonstrations of learning should be the basis to know the extent of learning that has taken place (Thomas, 2013).

Developing and clearly communicating learning outcomes, coupled with providing feedbacks to students, was considered to be a good educational practice towards students' growth and success (Raehpour, 2013). The extent of clarity of learning outcomes (related to students' performance) is gauged if those are observable and measurable, not those that speak of "values, attitudes, feelings, beliefs, and goals..." (Kaliannan & Chandran, 2012).

Do outcomes vary, in terms of depth? Spady advocates the "Demonstration Mountain" that explains types of outcomes (in competence complexity categories)

which are (from low to high): “discrete content skills, structured performances, higher order competencies, complex unstructured task performances, complex role performances and life-role functioning” (Thomas, 2013). In the context of purposeful learning, achieving outcomes in the highest category is the ultimate priority, over time, schedules and conventional curricula (Thomas, 2013).

Designing down from Ultimate Outcomes

Schools are expected to adapt “backwards planning” or “design down and deliver up” approach (popularized by Wiggins and McTighe in their Understanding by Design) that focuses on “the end in mind” or the expected learning outcomes, and designs a curriculum for students to achieve those outcomes (Thomas, 2013). Resources, skills (eg. needed teaching competencies of the faculty towards OBE), teaching and learning strategies shall be anchored on the desired end state or outcome. Academic institutions/ professional staff have to fully understand and embrace the ultimate outcomes, then conduct curriculum design/ re-design.

Innovative teaching and learning practices (such as increasing students’ active engagement in learning) aligned with outcomes-based education were perceived to be more relevant by students instead of the usual lecturers given by the faculty (Irving, 2004; Deneen et.al., 2013). Academic achievement also improved because of group interactions (as a teaching and learning approach) while students were able to provide insights in the outcomes-based learning framework (Deneen, et.al., 2013).

High Expectations for High Level of Success

Students are viewed as capable of becoming successful, with the high and clear expectations set for them. Expecting students to simply acquire knowledge is a traditional view about the impact of teaching. Outcomes-based education demands that the impact of teaching (and learning) to students should be for them to master competencies, proven by their ability to demonstrate their skills (Raehpour, 2013). It affirms the view that “who cares what you know, it’s what you can do that matters” (Friedman, 2013). OBE emphasizes further that the competencies or skills should be in-sync with the roles or tasks to be accomplished in the workplace (Raehpour, 2013).

Related to the principle of outcomes-based education are the research findings that setting high expectations (learning outcomes) to students is essential for them to develop skills related to “socially responsible leadership , including

consciousness of self, congruence, collaboration, common purpose, citizenship, and controversy with civility" (Goodman et.al., 2011). Challenge and high expectations (with descriptions of expected student outputs as measurable (Ascough, 2011) also contributed to the personal development of students as psychological well-being improved (Goodman et.al., 2011). Such includes "self acceptance, sense of personal growth, environmental mastery, life purpose, and autonomy" (Goodman et.al., 2011).

Expanded Opportunities and Support

This emphasizes the need for students to have learning opportunities beyond the classroom and the instructional time (Smith, 2010).

Spady believes in the need to provide varied learning experiences that are real, comprehensive, meaningful and significant, for students, over a long period of time. A rapid shift from the educator to the learner needs a range of learning experiences where students can actively participate, even develop the discipline to learn, even beyond the classroom. The educational paradigm towards OBE is then expected to be "learnercentered, success oriented, outcome-based, expansive, systemic and holistic" (Thomas, 2013).

Literature Review

Cross-border employment created a globalized marketplace where university graduates can offer their relevant competencies. Students have become more prudent in choosing institutions that will train them well, to gain competencies, for employment (Kennedy, 2011). Such scenario strengthened the need for outcomes based education which has three (3) aspects: focus on the outcomes, curriculum design process, and the relevance of appropriate learning experiences provided by the institution/ teacher-trainer for the success of all students (Kaliannan & Chandran, 2012). Education should provide learners with the skills, knowledge and habits that are relevant in our understanding of the world, and what it expects from us (Neem, 2013).

Outcomes-based education and its definition

Outcomes-based education is said to have evolved from a series of ideologies in education, from behaviourism and other educational initiatives to master students'

learning, behavioural objectives, and curriculum and assessment anchored on competency-based approaches (Arguelles & Gonczi, 2000).

William Spady, known as the father of OBE, introduced the concept of curriculum planning that started with a broad set of learning outcomes, and determining how those may be achieved. Spady (1994) has defined OBE as a process of "clearly focusing and organising everything in an educational system around what is essential for all students to be able to do successfully at the end of their learning experiences. This means starting with a clear picture of what is important for students to be able to do, then organizing the curriculum, instruction and assessment to make sure this learning ultimately happens." (Berlach and O'Neill, 2008).

Spady's outcomes-based education are anchored on the following principles: "Begin, with the end (outcome), in mind; Individual schools design a curriculum around predetermined outcomes;Comparing students' performances is educationally counter-productive; All learning should be calibrated so as to allow for individual success;Process is at least as (if not more) important as product; The importance of "me" is emphasized in the process;Traditional schooling paradigms are "educentric icebergs" and as such, passé;" (Berlach and O'Neill, 2008). Effectively and efficiently implementing outcomes-based education requires a structured, organized and practical curriculum essential for graduates to master the competencies or expected learning outcomes, specified in the curriculum (Kaliannan & Chandran, 2012).

However, even with the steps, processes and systems to document OBE implementation, no single OBE model exists (Kaliannan & Chandran, 2012). What is important is, any system that supports outcomes-based education gives emphasis on students' performance vis-a-vis learning outcomes (Kennedy, 2011). It recognizes what students need to learn to pass a degree and to move forward once competencies or learning outcomes are achieved (Neem, 2013). It demands that universities provide educational activities that recognize students' skills and how those skills may be enhanced through varied learning experiences, viewed and actively engaged in by students (Crump, 2006).

The over-all impact of the course/ program is the anchor of learning outcomes, essential in outcomes-based education (Ascough, 2011).

Assessment as a key-component of OBE

Outcomes-based education gives due important to assessment of student learning. Assessment has to be aligned with the “intended learning outcomes, teaching and learning arrangements (including curriculum), and methods for assessing (describing, measuring, reporting) students’ learning outcomes” (Kennedy, 2011).

Unfortunately, several modes of assessment are continuously being critiqued as not reliable to measure expected outcomes in higher education (Knight, 2002). Examinations, as a mode of assessment, were observed to encourage memorization or evaluated learning that lacks depth of understanding (Ramsden, 2003). Feedbacks were observed to be ineffective because of the delay in giving those feedbacks. Improvement in students’ performance as a response to feedbacks, are no longer evaluated (Carless, 2006). Moreover, assessment is usually done in relative isolation among colleagues. Program Level assessment calls on the faculty to discuss new “technology” or new modes of assessment that are calibrated, functional and practical (Haviland et.al., 2010).

Assessment also failed to train students to develop dispositions for lifelong-learning (ex. of which is to self-evaluate) (Carless, 2007).

The demand for effective and efficient modes of assessment has been increasing (Diamond, 2008) (Ascough, 2011). To achieve this, teachers need to be trained further in drafting learning outcomes vis-a-vis program and institutional objectives (Haviland et.al., 2010) as they also develop a well-written course syllabus (stating the learning outcomes) and given to students at the start of a course (Raehpour, 2013). OBE implementation demands the use of entrance and exit survey form to assess students’ achievements in the course/ program. The use of pre-test and post-test (measured in terms of reliability and validity) was encouraged to assess the extent of learning and understanding of students after the course/ program (Kaliannan & Chandran, 2012). Once clear descriptions of course assignments are given, presentation of grading rubrics to students (before any project or assignment is given) is also a good practice for students to know the basis (criteria) for assessment (Ascough, 2011).

However, assessment rubrics should always consider the Course Intended Learning Outcomes, with the criteria as transparent, observable and easy to measure with evidence (Deneen et.al., 2013).

Through outcomes-based education, appropriate modes of assessment will benefit both the students and the institution because: learning outcomes are also

expected to support institutional goals; professional institutions succeed in preparing students for careers; graduates succeed in their careers (a criteria in evaluating the effectiveness of the education received, in an institution) (Berdrow & Evers, 2010).

Practices in Outcomes-based teaching and learning

Prerogative to the practice of outcomes-based learning are the following: outcomes vary across levels and purposes; outcomes are complex because of the convergence of knowledge, skills and values; outcomes direct students to be active learners; outcomes should have been well-thought of collaboratively and openly by the faculty, education experts and stakeholders; professional development programs and other forms of support to the faculty/ OBE implementers are significant; modes of assessment should be in place as evaluation results are given as constructive feedbacks (Kennedy, 2011).

One approach that supports OBE principles is service learning which is still considered an academic instruction/ activity, with emphasis on “critical, reflective thinking and personal and civic responsibility (Robinson, 2010). Instead of simply limiting assessment to an individual’s performance, service learning may be integrated in any college course or discipline, to increase the students’ understanding/ mastery of the course material. Service learning also strengthens the school’s involvement to the community as students are able to connect theories learned in class to community-based projects (Robinson, 2010).

Increased student learning outcomes was also an observed result of service learning participation (Robinson, 2010).

The use of e-portfolios (equally useful in distance learning courses) is also an innovative form of assessment at higher education institutions (Dysthe, 2007; Rod et.al., 2010). Professional Development Program: Its relevance in implementing educational reforms

Orientations, intensive courses, mentoring programs, formal or informal training workshops are just some of the approaches integrated in professional development programs, especially for the new faculty (Boman et.al., 2013). Even if many teachers are hired to teach because of their industry experience and or technical expertise, many of them lack the needed skills and experience for effective teaching (Raehpour, 2013). Teachers were observed to lack effective teaching skills appropriate for a particular course/ discipline and limited

pedagogical knowledge that affected their effectiveness to teach (Raehpour, 2013).

Thus, orientations and training programs in higher education institutions are usually designed for new faculty who need further support in teaching and research. Orientations and trainings also enable them to be acquainted with colleagues who may mentor/ guide them on academic and administrative policies (Boman et.al., 2013).

Even for tenured or seasoned faculty, mastery of teaching never ends because of new theories, needed variations in teaching strategies, newly discovered best practices, and the constant change of learners and their diverse learning needs (Raehpour, 2013).

Moreover, training the professional staff to meet the demands of educational reforms will enable them to adopt teaching approaches that will develop students' capabilities to perform complex tasks in real settings and situations, in life (Raehpour, 2013; Donnelly, 2007). However, professional development programs have to consider the complex roles teachers have, aside from teaching and evaluating students' performance. The extent of teachers' roles is comprehensive as this includes: conducting research, academic advising and mentoring, counselling and administration... Aside from the extensive roles of teachers, the lack of teaching experience (or the absence of any teaching experience) demands that development programs include pedagogy as a priority (Raehpour, 2013).

Customized professional development programs were also found to respond to training needs of tenured or seasoned faculty. Research findings have proven that years of teaching experience may not necessarily be equated with improved teaching approaches or perceptions towards teaching. Teachers' familiarity with varied modes of assessment and how those modes may be utilized are also some of the challenges that need to be overcome through professional development programs. "Overassessment" of students' performance becomes a burden to teachers as it also results to loss of focus in improving learning (Crump, 2006).

In the research of Raehpour (2013), findings showed that the five important professional development activities were: preparation of effective, current instructional materials, utilization of hands-on approach to learning, adaption of effective individual and group instruction, use of technology during presentations, and modification of instructional materials to respond to student and industry assessment and feedback (Raehpour, 2013). With the professional development

programs, teachers have become more student-centered in their teaching approaches, as they integrated interactive learning methods (Gunersel et.al., 2014; Light et.al., 2009).

The need for diverse professional development programs is recognized. But understanding the expectations of the institution to the roles and accomplishments of faculty is the most common among the needed orientations and training for the faculty (Boman et.al., 2013). Orienting or training the faculty to cope with educational reforms (such as outcomes based education) is also important. The more teachers understand the educational reform, the more they would be willing to adopt to the needed changes (Haviland et al, 2010).

OBE Implementation in the Philippines

Higher Education Institutions in the Philippines (especially those involved in International Accreditations) started formally integrating principles of outcomes-based education in their educational/ academic system, even before the issuance of CHED Memorandum Order no. 46 Series of 2012 entitled “Policy Standard to Enhance Quality Assurance (QA) in Philippine Higher Education through an Outcomes-based and Typology Based QA.” However, the issuance of the CHED Memo created a stronger mandate for higher education institutions in the Philippines to implement outcomes-based education.

Prioritizing professional/ faculty development programs towards OBE implementation is considered one of the top priorities for successful OBE implementation in the Philippines (Borsote et.al., 2014; Castillo, R., 2014; Laguador, J. & Dotong, C., 2014; Llanes, C, 2014; Navalata, 2012; Orosa, 2012; Pastrana & Manabat, 2012).

Borsoto et.al. (2014) stated in his study that seminars shall be provided to faculty and students for them to know fully how OBE may be effectively implemented. Teachers/ academic staff should be provided with varied opportunities to know more about OBE. Said opportunities include: provision of references/ reading materials about OBE, conduct of seminars/ workshops on OBE implementation and strengthening continuing professional education (Castillo, 2014). Information campaign, setting clear expectations on OBE implementation and developing faculty’s ownership of OBE were implemented by MAPUA Institute of Technology (Navalata, 2012) while Baliuag University conducted new faculty orientation and Teaching-Learning Competency Workshops, and strengthened professional learning communities and linkages (Orosa, 2012). Technological Institute of the

Philippines also conducted the OBTL campaign through the flyers (for students) and the OBTL Checklist for Faculty members (Llanes, 2014). Even the need to retool the General Education faculty (specifically) and the non-teaching personnel was emphasized in the study of Pastrana & Manabat (2012).

Based on research, the following are some of the recommendations for successful OBE implementation: (a) Teachers should provide more activities for students for them to gain better mastery of things discussed in class; (b) Teachers should inform students of the OBE approach being implemented; (An, 2004) (c) Schools should provide more opportunities for immersion and field trips for students; (d) Teachers should provide enough exercises, assignments and projects for students to work on, even beyond the class hours (Borsoto, 2014); (e) Teachers should use varied activities found to help students achieve outcomes. Activities include: small group discussion, class game, active learning, collaborative learning group and the creation of student portfolios; (f) Teachers should redefine assessment tasks and tools for the appropriate evaluation of learning outcomes; (g) Teachers should properly plan Teaching Learning Activities that will aid students achieve the ILOs (Hilario, 2015); (h) Teachers should be members of Professional Learning Communities that will enable them to improve instructional practices and create a more scholarly and relevant approach in teaching and learning (Orosa, 2012); and (i) Teachers should be open to more trainings in technology integration in instruction (Reston, 2013).

Mapua Institute of Technology perceive faculty resistance as a major challenge in OBE implementation. Teachers viewed OBE as simply adding more tasks to the current workload, for the sole purpose of accreditation. Teachers had difficulties identifying appropriate assessment tasks to objectively measure performance, based on learning outcomes, while others really had difficulties deviating from the traditional, teacher-centered, lecture-focused mode of instruction. MIT had to resolve faculty concerns on OBE by: giving teachers the assurance that the implementation of OBE is a “culture, not just a climate (for accreditation only); Teachers were given academic support/ assistance by the Program Heads, through the support structures that were established; and communication was encouraged to be open and active (Navalata, 2012).

In the case of Technological Institute of the Philippines, the following activities were said to contribute to the successful implementation of OBE: Structured/ planned information dissemination of Outcomes-based Teaching and Learning; finalization of TIP graduate attributes with the constructive re-alignment formulation of ILOs; Prioritized capacity building for faculty members; improvement of assessment and

evaluation mechanisms to measure if learning outcomes are really met, and the creation of Continuous Quality Improvement Mechanisms to monitor, sustain and improve OBE implementation (Llanes, 2014).

Full implementation and sustainability of reform initiatives towards outcomes-based education demand close monitoring or supervision of programs and activities designed for OBE implementation. Special centers or positions were then created by higher education institutions to oversee OBE implementation. Examples of those centers/ positions are: the Director for Instruction in Lyceum of the Philippines- Batangas (Laguador & Dotong, 2014); OutcomesBased Teaching and Learning Coordinator in Technological Institute of the Philippines (Llanes, 2014); and the Center for Academic Development and Assessment in Baliuag University (Orosa, 2012).

METHODS

Research Design

The study employed the quantitative design through surveys, observations and responses to guide questions. The quantitative survey asked respondents to answer the questionnaire.

Locale of the Study

The research was conducted in all CICM schools in Luzon - University of Saint Louis, Tuguegarao City; Saint Mary's University, Bayombong, Nueva Vizcaya; Saint Louis University, Baguio City; and Saint Louis College, San Fernando, La Union.

Respondents of the Study

Respondents were the Teacher Education faculty (full time and part time, per institution), all Teacher Education Program Chairs, and all Academic Deans of the Teacher Education Department. A total of 106 responses from the faculty, 141 faculty evaluations by the Department Heads, 15 responses from the department heads, 2 responses from the academic deans and 2 responses from the Vice President for Academics became the basis of the findings.

Data Gathering Instrument

Four (4) questionnaires were designed for this study: 1) The Faculty Questionnaire; 2) the questionnaire for the Department Heads/ Program Chair; 3) the questionnaire for the Academic Deans/ Vice Presidents for Academics; and, 4) the customized Faculty Evaluation tool used by the Department Heads/ Program Chair to evaluate extent of OBE implementation by their faculty.

The questionnaires were critiqued, edited, pilot-tested, revised, and evaluated again to ascertain its validity and reliability to answer all the research questions in this study.

The Faculty Questionnaire revolved around the extent of OBE implementation based on the factors for successful OBE implementation. Extent of implementation was rated as 4 (highly observed), 3 (observed), 2 (partially observed) and 1 (not observed). The second part of the faculty questionnaire targeted to identify the prioritized training needs of the faculty towards OBE implementation. Trainings were rated as: 4 (highly prioritized for training), 3 (priority training), 2 (possible training, but not very necessary) and 1 (no longer necessary). Preferred type of the professional development program was also identified, with the 4 (highly preferred), 3 (preferred), 2 (not preferred) and 1 (not applicable) rating. Two (2) questions had to be answered by the faculty. The Questionnaire accomplished by the Department Head/ Program Chair was to further validate the responses of the Academic Deans on structures, processes and procedures for OBE implementation and other data. The first part of the questionnaire focused on identifying the type of professional development program implemented, with yes/ no options. The second part was to identify academic structures, processes and procedures for OBE implementation. Items were rated as 4 (highly implemented), 3 (implemented), 2 (partially implemented) and 1 (not implemented). Four (4) questions had to be answered by the department heads/ program chairs.

The Questionnaire accomplished by the Academic Dean/ Vice President for Academics confirmed academic structures, processes and procedures adapted for OBE implementation. The first part of the questionnaire focused on the processes/ structures, with items rated as 4 (highly implemented), 3 (implemented), 2 (partially implemented) and 1 (not implemented). on identifying the type of professional development program implemented, with yes/ no options. The second part was to identify academic structures, processes and procedures for OBE implementation. Items may be rated as 4 (highly implemented), 3 (implemented), 2 (partially implemented) and 1 (not implemented). Six (6) questions had to be answered by the academic dean/ vice president for academics.

Department Heads were also asked to accomplish the faculty evaluation tool based on their previous observations of the faculty. Extent of implementation by the faculty was based on evaluating how they were able to implement indicators for successful implementation, with the ratings as: 4 (highly observed), 3 (observed), 2 (partially observed) and 1 (not observed).

Data Gathering Procedure

Approval from the Presidents of all the CICM Schools in Luzon was sought, for the researcher to administer the questionnaires to teachers, heads, deans and vice presidents. Letters of Request were also sent to the Academic Deans to seek their assistance to gather the faculty and accomplish the questionnaires. Letters of Request were also sent to Department Heads/ Program Chairs for them to conduct faculty evaluation on the extent of OBE implementation. Retrieval of accomplished questionnaires (in Tuguegarao City; Bayombong, Nueva Vizcaya; Baguio City; San Fernando, La Union) was personally done by the researcher. Some details and clarifications on the ILOs, PLOs, CLOs and CQI mechanisms for OBE implementation were gathered through email-correspondences with the Academic Deans.

Data Analysis

Frequency count, percentage and mean were used to determine the following: the extent of knowledge or understanding of OBE implementation, extent of practice of OBE implementation in instruction, preferred type of professional development program as perceived by the Teacher Education faculty, prioritized training programs and the corresponding modes of delivery, and structures and processes for successful OBE implementation as perceived by the Department Heads/ Program Chair.

Confirmatory factor analysis was used to determine which factor of OBE implementation is considered a contributory factor in the professional development of faculty towards outcomes based teaching, as it also became the basis to develop the OBTL Checklist for the faculty.

RESULTS

In this section, the salient findings of the study on the institutional outcomes, program objectives and program learning outcomes of CICM Schools, extent of

OBE implementation, the training needs of the Teacher Education faculty, the preferred modes of delivery of faculty development programs and the structures, processes, procedures and CQI Mechanisms for successful OBE implementation are presented and interpreted in tabular and textual forms as take off point for comprehensive discussion.

Institutional Learning Outcomes, Program Objectives, Program Learning Outcomes of the different CICM schools

Observed differences on how institutional outcomes, program objectives and program outcomes in Teacher Education were formulated and formatted by CICM schools support the need for further review/ critiquing of the ILOs, PEOs and PLOs... While USL enumerates institutional outcomes, SLU and SMU provide a 1-sentence institutional outcome that summarizes who a Louisian or a Marian graduate is expected to be.

The labelling of program objectives vary, as USL and SLU call it program objectives, SMU refers to it as program educational outcomes while SLC addresses it as common program outcomes. How program outcomes are presented also vary, as SLU and SMU specified where the outcomes were based, while USL provided a general overview of the program objectives. Currently, SLC's program objectives are patterned after SLU's. SLU provided separate program outcomes for BEED and BSED while USL and SMU provided program outcomes for both the BEED and the BSED.

Since OBE implementation by the CICM schools is in its infancy stage, there will be a series of review/ critiquing/ reformulation of program objectives and outcomes.

Institutional Learning Outcomes of CICM Schools

Common to the Institutional Learning Outcomes of all CICM schools is the emphasis on Christian discipleship. Two (2) ILOs state that graduates are expected to "Practice Christian values" while another states: "... to be Christian disciples..." Another emphasis is on the expected success in "personal and professional endeavours" of graduates, as they are also expected to be of "service to the community".

What is distinct in the ILOs of two (2) CICM schools is the inclusion of graduates expected to generate “new knowledge and developmental projects and programs...”

Table 1: Presence of PEO’s in Teacher Education of CICM School

Themes	SCHOOL A	SCHOOL B	SCHOOL C	SCHOOL D
Christian Living	Present	Absent	Absent	Present
Excellence	Present	Present	Absent	Present
Professional Responsibility	Absent	Present	Absent	Present
Innovation/ Creativity	Present	Present	Absent	Present

Program educational objectives are those that can be achieved by the alumni five (5) years after graduation. PEOs in Teacher Education of CICM schools revolve around four (4) main themes: Christian Living, Excellence, Professional Responsibility and Innovation/ Creativity. However, the table shows that there are differences on how objectives were articulated per theme, as some themes did not have articulated objectives.

Under Christian living, schools A and D articulated that graduates are expected to “functional effectively as Christian formators” or “practice Christian values in the service of the CICM Mission.” Schools B and C do not have articulated objectives under Christian Living.

Under Excellence, three (3) schools expect that graduates should have mastered addressing learning needs of diverse learners five (5) years after graduation, as they are able to: “exceed demands of diverse learners”, “teach across different learning areas” through a “range of teaching and facilitating processes including curriculum development, lesson planning, materials development and educational assessment.

Schools B and C recognize that graduates should “facilitate learning activities across disciplines,” while school A emphasizes the relevance of competencies, abilities and skills (anchored on core values, CICM charism and the Filipino teacher). Schools B and D emphasize the importance of integrating knowledge to real-life situations of learners.

Under Professional Responsibility, school B demands graduates to "create an inclusive learning environment" which is also articulated, though different from school D when it stated the objective to "promote Filipino historical and cultural heritage," and "work effectively and independently in multi-disciplinary and multi-cultural themes." School D also articulated that graduates are expected to "act in accordance to professional and social responsibility." Schools A and C did not articulate objectives under professional responsibility.

Under Innovation and Creativity, schools A, B and D look at graduates as creative innovators as they are expected to "remain relevant even with the changes in the learning environment and technological world, by applying the latest developments in teaching and innovating alternative teaching approaches." To be creative innovators, school D articulated in its program objectives that graduates should "participate in the generation of new knowledge and service-oriented developmental projects."

Program Outcomes in Teacher Education among CICM Schools

Program outcomes (also referred to as Program Learning Outcomes) in Teacher Education of CICM schools revolved around the following themes: Christian living and ethical responsibility, excellence, professional responsibility, and, innovation and creativity. The writing of the Program outcomes of school D is a "work-in-progress." Currently, school D patterns its PLOs to another CICM school.

Only schools A and C have program learning outcomes under Christian living and ethical responsibility. Both schools expect that the 4-year schooling obtained by graduates trained them to "live out or manifest Christian values" anchored on the CICM charism. School C articulates that graduates should "practice ethical teaching standards" which is more specifically articulated by school A in the learning outcome: Graduates are expected to "conduct themselves as professional teachers and school leaders, according to the Professional Code of Ethics for Professional Teachers and the Louisian Core Values." School A further articulates that graduates do not only live out Christian values but also "foster citizenship and patriotic feeling."

Table 2: Presence of PO's in Teacher Education among CICM Schools

Themes	SCHOOL A	SCHOOL B	SCHOOL C
Christian Living	Absent	Absent	Present

Excellence	Present	Present	Present
Professional Responsibility	Present	Present	Present
innovation/ Creatiivity	Present	Absent	Present

On Excellence, Schools A, B and C emphasize mastery as an outcome as graduates are expected to "demonstrate mastery of topics," "demonstrate basic and higher levels of thinking in planning, assessing and reporting," and "apply skills in curriculum development, lesson planning, materials development, instructional delivery and educational assessment." The way such is articulated varies, as a school states it broadly and another school states it more specifically.

School A expects graduates to "contribute to ongoing educational research by teaching and modeling inquiry methodologies and data-informed instruction" while school D expects graduates to "design and implement assessment tools and procedures to measure outcomes."

The importance of communication skills is articulated in the PLOs of CICM schools. However, there are observed differences on how such was articulated. School A expects graduates to "communicate effectively in written and oral English, Filipino and the Mother-tongue" while school C states it as "effectively communicate orally and in writing using both English and Filipino languages." School B included other skills, aside from communication skills as it stated the outcome as "demonstrate in-depth understanding of basic (and advanced) levels of literacy, communication, numeracy, critical thinking and learning skills."

Schools B and C emphasize that graduates should act as facilitators of learning, with diverse learning types of learners in mind, as articulated in school B's outcome: "Facilitate meaningful learning of diverse types of learners, in diverse types of learning environments," and school C's outcome: "Facilitate learning using a range of teaching methodologies." School B also expects graduates to "articulate the relationship of education to historical, social, cultural and political processes."

Under Professional Responsibility, only school A articulated in its PLO that graduates should "create a conducive learning environment for diverse learners." "Design, enrich and implement the curriculum" (school A) as a PLO is specifically (partially) addressed in school C's PLO: "Promote Filipino Historical and Cultural Heritage (RA 7722).

Collaborative skills, as a PLO, is articulated by all schools through the following outcomes: “Engage in professional development and dialogue” (school A), “collaborate with colleagues and other experts for continuous professional development” (school B), and “work effectively and independently in multi-disciplinary and multi-cultural teams” (school C).

Pursuit for lifelong learning is articulated by schools A and C through the following outcomes: “Continually improve professionally” (school A), and “Pursue lifelong learning” (school C).

Working with other educational institutions, government or non-government agencies is a PLO supported by schools A and C as graduates are expected to: “offer services and share expertise and facilities with other educational entities in attaining the goals of quality basic education” (school A) and “demonstrate professional, social and ethical responsibility in practicing Intellectual Property Rights and Sustainable Development.”

Under Innovation and creativity, schools A and C articulate that graduates should possess skills to design instructional materials and adapt varied teaching approaches through the following PLOs: “Design and integrate instructional materials for student-centered learning,” “Construct and employ appropriate tools to improve varied learning experiences,” (school A) and, “Create and utilize materials to enhance teaching and learning,” and, “Develop alternative teaching approaches,” (school C).

Only school A articulated in its PLOs that graduates are expected to: “Initiate and actively participate in various environmental programs and activities,” while schools B and C emphasized application of latest developments in the field through the following PLOs: “Apply the latest developments in the field,” (school B) and, “Articulate the latest developments in their specific field” and “participate in the generation of new knowledge or in research and developmental projects” (school C).

General findings, as shown in Tables 2.a. – 2.d. are: articulated PLOs of CICM schools across themes show similarities and differences. Some themes are supported by all CICM schools, while other themes are supported by 1-2 schools only. Findings also show differences in classifications of outcomes as some PLOs are categorized as PEOs by the CICM schools.

Extent of Implementation of Outcomes-Based Education along the four principles of Spady

Table 3: Extent of OBE Implementation by the CICM Schools (based on the 4 Factors for Successful OBE Implementation)

FACTORS for SUCCESFUL OBE IMPLEMENTATION	Overall Mean	Description
CLARITY of FOCUS on OUTCOMES of SIGNIFICANCE	82.79	Implemented
DESIGNING DOWN from ULTIMATE OUTCOMES	84.76	Implemented
HIGH EXPECTATION for HIGH LEVEL of SUCCESS	87.41	Implemented
EXPANDED OPPORTUNITIES and SUPPORT	76.68	Implemented

Table 3 shows that the extent of implementation of the (4) factors towards successful OBE Implementation is “observed/ implemented.”

Indicators under the “Clarity of focus on outcomes of significance” demand teachers to identify relevant course outcomes, effectively articulate those to students, and design assessment tools or modes to constructively evaluate the attainment of learning outcomes. “Designing down from ultimate outcomes” expects teachers to apply innovative teaching strategies, learning platforms and assessment tools for students to achieve the learning outcomes. Indicators under “High expectations for high level of success” empower teachers to set high expectations for students as they articulate high standards to evaluate performance. “Expanded opportunities and support” challenge teachers to provide learning platforms for students to learn and master competencies (even when outside the classroom).

Clarity of Focus on Outcomes of Significance. Highly observed indicators under the clarity of focus on outcomes of significance are implemented because of the availability of course syllabi/ learning plans that teachers use to constantly review and relate objectives, outcomes, and competence bases vis-a-vis the lessons taught, the strategies/ activities implemented, applied lesson design, conducted performance demonstrations, and utilized modes of assessment.

Observed indicators are those that specifically/ directly involve students for them to be fully aware of the learning outcomes expected to be attained. Since those indicators are said to be observed only, referring to occasional implementation, or frequency of implementation is once a week or every two weeks, there is a need to strengthen the extent of implementation of the said indicators. To clearly present learning outcomes and to effectively direct students towards the attainment of the learning outcomes, the extent of implementation has to be highly observed, referring to regular/ frequent implementation (during class period). The frequency of implementation has to be on a per meeting basis (or, as the need arises) in a timely manner.

Designing down from Ultimate Outcomes Highly observed indicators manifest that teachers' view on roles have started to evolve as they now focus on providing student-centered activities or approaches. Skills demonstration, a very student-centered approach, is highly observed as teachers require students to practice and showcase their skills, with the intention for students to master those skills. Modes of assessment have also evolved from simply being limited to quizzes/ examinations to adapting varied modes, and developing examinations to address diverse learning objectives and outcomes.

Designing down from ultimate outcomes. This is attained as teachers now recognize the importance of collaborating with colleagues to review how appropriate the curriculum is to attain learning outcomes. Collaboration among students, peers, students and teachers is recognized as an essential indicator towards having a conducive and outcomes-based learning environment.

The observed indicators show that teachers, even if they have recognized the need for student-centered activities/ approaches, still recognize the balance between "teacher talk" and "student talk," between teacher-centered and lecture-focused mode of instruction. The observed indicators related to instructional planning may imply the need to strengthen implementation (to highly observed) because a regular review of activities and how those meet learning outcomes is crucial in outcomes-based education. Observed indicators related to the design and the use of instructional materials and activities manifest teachers' acceptance in their role to design, use and evaluate instructional materials and instructional technology. Instructional materials are used with the objective to make learning more interactive, and eventually develop/ master students' competencies.

High Expectations for High Level of Success. Highly observed indicators in the extent of OBE implementation, particularly in setting "high expectations for high level of success" shows how indicators are interrelated and done sequentially.

First, teachers treat learners as mature learners capable of producing knowledge, instead of merely consuming/absorbing knowledge. With such perspective towards students, teachers constantly move around the classroom to check whether students are able to practice the skills/competencies they are expected to develop (during independent practice) or whether they are able to master the skills/ competencies specified in the learning outcomes (during independent practice); Such is being done by the teacher after he/she has presented/ explained to students any basis of scoring during the class period (ex: Recitation/ activity/ exercise will be done); Administering practical exams or skills demonstration to evaluate students' mastery of the learning outcomes also enrich other activities conducted in class.

Second, teachers are highly observed to set parameters, with the corresponding criteria on how activities/projects are to be done, as students are encouraged to think beyond the set-parameters. For example, providing templates for students to accomplish but encouraging them to improve the template or present their ideas more uniquely/ creatively (but significantly). Aside from thinking beyond the set-parameters, students are also reminded of projects to work on collaboratively. All these are done once criteria for good performance/specific performance indicators had been presented with the corresponding rubrics to evaluate students' performance during activities/ presentations and/or to evaluate students' competencies demonstrated through their portfolios/ projects.

Third, other highly observed indicators show how conscientious teachers are in relating assessment tools and evaluation vis-a-vis learning outcomes by using assessment tasks that effectively and clearly measure whether the students have achieved the intended learning outcomes, giving grades to student based on the extent of his/her mastery in the expected competencies that should be developed in the course (contrary to the conventional practice that grades are based on paper-and-pen examination), and, constructively and positively challenging students to improve any work they have done/any competency they have demonstrated (after affirmations are given).

The observed indicator, presenting (on the board through power point presentation, or a "hard copy" for reference) the criteria / performance standards by which students' work will be evaluated, support other observed indicators earlier that teachers need to be more clear, more emphatic in presenting criteria more regularly or more frequently. Assessing students' performance at the end of each lesson needs strengthening to systematically diagnose students' skills/

competencies and to identify those they are weak at/ or need further trainings. Developing customized tools/evaluating techniques for students' assessment also needs strengthening for assessment/ evaluation techniques to be varied and appropriate.

Related to the observation in table I2, differences in the perception on the extent of implementation of the above indicators may be due to the limited chances to evaluate/ supervise/ conduct classroom observations. Above indicators can only be measured extensively if classroom visits/ supervisory evaluations are done more frequently.

Expanded Opportunities and Support

Highly implemented indicators on "expanded opportunities and support" are limited (with 4 indicators only) but are good practices to implement outcomes-based education because students are trained to conduct exhibits to showcase projects that present their skills/competencies, required to do advance research/ readings about the next topic or practice learned skills beyond class hours; and utilize online tools to learn more about the lessons/skills to be developed. Implemented indicators under "expanded opportunities and support" are said to be implemented, with certain limitations/concerns on the sufficiency and appropriateness of the learning environment for it to be highly implemented. A more thorough evaluation of those indicators would show one commonality: that the indicators require teachers to also extend beyond their usual roles as they have to conduct a thorough planning on pre-test/ initial skills assessments, the kind of assignments to be given and when those are to be given, the professional readings/ literature/ documentary clips to be shared to students, activities to be conducted outside the classroom and beyond the class hours, academic support to be given, and instructional tools to be designed.

Differences in the perception on the extent of implementation of the above indicators may be due to the limited evidences of implementation. Since outcomes-based education is evidence-based, teachers and students need to build students' portfolios to showcase learning opportunities beyond the class hours like their involvement in service learning programs, independent practice outside the classroom, accomplished modules, group studies beyond class hours, and attendance to seminars and conferences.

Training Needs of the Teacher Education Faculty along Spady's Principles for OBE implementation

All the specified trainings towards a strengthened outcomes-based education are highly prioritized by the Teacher Education faculty. It asserts the need for teachers to have more extensive trainings for a strengthened and successful implementation of outcomes-based education.

The highly prioritized training need under the “Clarity of Focus on Outcomes of Significance” is Matching learning activities with expected learning outcomes; 2nd is Identifying and applying CQI mechanisms to keep the curriculum responsive to evolving learning outcomes; 3rd is Revising the course design/ curriculum; 4th is Identifying career-specific skills as basis for course learning outcomes; and 5th is Presenting learning outcomes to students.

Training needs under “Designing Down from Ultimate Outcomes” are ranked as: 1st, Maximizing instructional technology to achieve learning outcomes; 2nd, Developing/ using varied student assessment and evaluation techniques vis-a-vis expected learning outcomes; 3rd, Adapting appropriate teaching strategies/ learning activities for instructional effectiveness; 4th, Identifying/ design instructional tools for students to demonstrate outcomes in a given time; and 5th, Analyzing/ recognizing diverse learning styles of students and developing appropriate learning plans.

Training needs under “High Expectations for High Level of Success” are ranked as: 1st, Developing/ customizing rubrics and other multiple methods of assessment to objectively evaluate performance and, Providing a learning environment that respects diversity yet recognizes students’ achievement; 3rd, Designing technology-enhanced assessment; 4th, Systematically evaluating progress in students’ work in a timely manner; and 5th, Adapting varied approaches to effectively give feedbacks on students’ performance.

Training needs under “Expanded Opportunities and Support” are ranked as: 1st, Using online, web-based courses and distance learning technology for a more effective/ relevant teaching ; 2nd, Designing/ customizing templates for e-portfolios; 3rd, Identifying/ using effective learning spaces (virtual, beyond the classroom) for students to learn even beyond the contact hours (class period); 4th, Integrating Service Learning Programs in the course; and, 5th, Training students to reflect on learning and assess their own work, and Applying mechanisms for a more pro-active academic advising.

Table 4 Training Needs of the Teacher Education Faculty along Spady's Principles for OBE implementation

Principles	Training Needs
Clarity of focus on outcomes of significance	Identifying career-specific skills as basis for course learning outcomes (This also refers to establishing linkages with academic practitioners and education-policy experts. It also includes identifying and implementing current industry standards, current trends in the curriculum, policies, standards and guidelines...)
	Revising the course design/ curriculum (includes revising the course syllabus, course objectives, lesson plans)
	Matching learning activities with expected learning outcomes (Correlating the lesson with the learning outcomes and the modes of assessment)
	Presenting learning outcomes to students
	Identifying and applying "Continuous Quality Improvement Mechanisms" (CQI) to keep the curriculum responsive to evolving learning outcomes (anchored on the equally evolving competencies required in the workplace)
Designing down from ultimate outcomes	Adapting appropriate teaching strategies/ learning activities for instructional effectiveness (This includes modifying learning plans and instructional materials to support instructional outcomes and to engage students in meaningful learning.)
	Analyzing/ recognizing diverse learning styles of students and developing appropriate learning plans
	Identifying/ designing instructional tools for students to demonstrate outcomes in a given time (This includes using "hands-on" learning strategies.)
	Maximizing instructional technology to achieve learning outcomes This includes using: presentation software program (eg. Powerpoint); a database software program (eg. Access); and an organizational software program for students' grades (eg. Peoplesoft, Oracle...).
	Developing/ using varied student assessment and evaluation techniques vis a - vis expected learning outcomes
High expectations for high level of success	Developing/ customizing rubrics (sets of criteria) and other multiple methods of assessment to objectively evaluate performance (This includes clearly articulating rubric criteria to assess learning outcomes.)
	Adapting varied approaches to effectively give feedbacks on students' performance
	Systematically evaluating progress in students' work in a timely manner
	Designing technology-enhanced assessment (eg. online Multiple Choice questionnaires, self-assessment of a project through blogs, using videos to present mastery...)

Principles	Training Needs
	Providing a learning environment that respects diversity yet recognizes students' achievement
Expanded Opportunities and Support	Designing/ customizing templates for e-portfolios (for students' use) (E-portfolio is also known as an online portfolio or digital portfolio. It allows students to consolidate all output through text, video, documentary... and post those in a website. Teachers may conduct assessment through the e-portfolio.)
	Identifying/ using effective learning spaces (virtual, beyond the classroom) for students to learn even beyond the contact hours (class period) (eg. Use of blogs, web-based learning management systems)
	Training students to reflect on learning and assess their own work (This is also related to developing the capacity of students towards self-managed learning.)
	Integrating Service Learning Programs in the course (Service Learning Program combines the academic theories with practical life-experiences as it engages students in programs/activities in the community.
	Applying mechanisms for a more pro-active academic advising (This is a form of both social and academic support outside the classroom.)
	Using online, web-based courses and distance learning technology for a more effective/ relevant teaching

Table 5 shows that the HIGHLY PREFERRED modes of delivery of professional development programs are: enrolment in post-graduate studies, attendance to training sessions with workshops (minimum of one day), attendance to crash courses with workshops, attendance to conferences (regional, national, international), conduct of departmental or in-house trainings/ professional development programs, receiving constant mentoring/ coaching by the head of office/ supervisor, having informal dialogue with colleagues to improve teaching approaches, having active membership in professional learning communities, conducting independent study through professional readings, involvement in action research/ individual or collaborative research and, participation in benchmarking/ educational trips/ lakbay aral.

Preferred Types of Professional Development Programs of the Faculty

Table 5: Types Of Professional Development Programs Preferred By The Faculty

MODES OF DELIVERY	Description
1. Enrolment in Post-Graduate Studies	Highly preferred

MODES OF DELIVERY	Description
2. Training sessions with Workshops (Minimum of one day)	Highly preferred
3. Crash Courses with Workshops (Highly customized; Only those who need the capacity building will attend – like in a class/ course.)	Highly preferred
4. Attendance to Conferences (regional, national/ international)	Highly preferred
Departmental or in-house in-service trainings / professional development program	Highly preferred
Constant mentoring/ coaching by your Head of Office/ Supervisor	Highly preferred
7. Informal Dialogue (with colleagues) to improve teaching approaches	Highly preferred
Peer Observation/ Classroom visit (You observe a colleague's classroom and benchmark how outcomes based teaching is done.)	Preferred
9. Classroom visits/ observations (A colleague visits/ observes you in class and constructively gives feedback on your outcomes-based approaches.)	Preferred
10. Active Membership in Professional Learning Communities (formed specifically for the development of teachers	Highly preferred
Independent Study through Professional Readings	Highly preferred
12. Webinars / Online training	Preferred
13. Involvement in Action Research/ individual or collaborative research	Highly preferred
Modular approach for independent training/ learning	Preferred
15. Benchmarking/ Educational Trips/ Lakbay-Aral	Highly preferred

PREFERRED modes of delivery of professional development programs are: conducting peer observation/ classroom visit (observing a colleague's classroom and benchmarking how outcomes based teaching is done); conducting classroom visits/ observations (A colleague visits/ observes a teacher in class and constructively gives feedback on outcomes-based approaches); participating in webinars/ online training and adapting the modular approach for independent training/ learning.

Preferred types of professional development program, according to rank, are: 1st, Enrolment in post-graduate studies and Attendance in Training Sessions with Workshops; 3rd, Attendance to Conferences (regional, national and international) and Joining Benchmarking activities/ Educational trips and Lakbay-aral; 5th,

Conduct of classroom visits (A colleague visits/ observes you in class and constructively gives feedback on your outcomes-based approaches.); 6th, Attending crash courses with workshops; 7th, Informal dialogue with colleagues to improve teaching approaches.

Least preferred types of professional development program, according to rank, are: 9th, Active membership in professional learning communities, Modular approach for independent training/ learning, and, Departmental or in-house in-service trainings; 11th, Independent study through professional readings; 12th, Constant mentoring/ coaching by your Head of Office/ Supervisor and, Peer observation/ classroom visit; 14th, conduct of webinars/ online training; and 15th, involvement in action research/ individual or collaborative research.

Academic Structures or Processes of the Teacher Education Program in the Implementation of OBE

Most of the highly implemented processes were related to identification of ILOs, PEOs and PLOs and their relevance to outcomes-based education. Review of CHED Policies, standards and guidelines was done as institutional outcomes, program educational objectives and program learning outcomes were formulated. With the PEOs and the PLOs, department heads and program chairs were involved in the review/ reformulation/ re-alignment of course learning outcomes. With the identified outcomes, syllabi review/ revision was done.

Implemented indicators are: invitation to parents, alumni, representatives from other schools in the formulation of ILOs, PEOs and PLOs; integration of a range of assessment tasks and service learning programs to measure outcomes, in the syllabi; and presence of evidences that PEOs were reviewed.

Table 6. Processes towards OBE implementation

Process	**Items**	**Description**
IDENTIFICATION of ILOs/ PEOs/PLOs PROCESSES 5	1.Ideal graduate attributes, anchored on the visionmission-goals-objectives of the institution, are clearly articulated and serve as input in identifying the Program Educational Objectives (PEOs), Program Learning Outcomes (PLOs) and Course Learning Outcomes (CLOs).	Highly implemented
	2. CHED's new Policies, Standards and Guidelines were reviewed to identify the minimum program	Highly implemented

Process	Items	Description
	outcomes common to all schools, common to the discipline, specific to a sub-discipline or major.	
	3. Industry partners, experts, representatives from professional bodies/ government and non-government agencies were involved in the review/ re-formulation/ realignment of Program Educational Objectives and Program Learning Outcomes.	Partially implemented
	4. Parents, alumni, representatives from other schools were involved in the review/ re-formulation/ re-alignment of Program Educational Objectives and Program Learning Outcomes.	Implemented
	5.ALL Teachers, Department Heads/ Program Chairs were involved in the review/ re-formulation/ re-alignment of Course Learning Outcomes vis-a-vis Program Educational Objectives and Program Learning Outcomes.	Highly implemented
	6. Curriculum review and enhancement were done to ensure that the courses are relevant to achieve program learning outcomes and program educational objectives.	Highly implemented
	7. Syllabi review/ revision was done for teachers to plan how the PEOs and PLOs may be achieved through the attainment of course learning outcomes.	Highly implemented
	8. Syllabi review/ revision was done with focus on desired outcomes.	Highly implemented
	9. In the syllabi review/ enhancement, teachers were specifically asked to identify/ integrate a range of authentic assessment tasks.	Implemented
	10. Community engagement/ service learning programs are specified in the syllabi in most courses and are implemented as additional opportunities for students to apply theories/ concepts/ competencies learned or developed in class.	Implemented
	11. Program Educational Objectives were reviewed as evidenced by: reports/ minutes of meetings with academic practitioners/ experts; reports and minutes of meeting with external examiners; alumni survey; and employer survey.	Implemented
	12. Program Educational Objectives were also based on alumni and employer survey results.	Partially Implemented
Re-Tooling The Faculty/	1. Information campaign/ dissemination was conducted for teachers to be fully aware of OBE implementation.	Highly implemented

Process	**Items**	**Description**
Staff Processes	2. Information campaign/ dissemination was conducted for other employees/ non-teaching personnel to be fully aware of OBE implementation.	Partially Implemented – Not implemented
	3. Teachers were given re-orientation/ intensive training on varied modes of assessment. e.g. How to maximize the following modes to objectively assess attainment of expected learning outcomes: quizzes, tests, assignments, coursework, projects, lab experiments etc.	Highly implemented
	4. Intensive training sessions or programs on outcomesbased assessment were given to the faculty.	Highly implemented
	5. Workshops/ in-service training programs or sessions on how to successfully implement OBE in instruction were done on a monthly basis (a year after it was launched for implementation).	Highly Implemented – Implemented – Partially Implemented
	6. Benchmarking activities were done by administrators/ heads of academic units for them to observe how OBE is implemented in other Higher Education Institutions recognized for their success in OBE implementation.	Highly implemented
Orienting The Students And Other Stakeholders	1.Student co-curricular organizations were given orientation on OBE and were asked to include in their action plan the conduct of seminars/ conferences or similar activities as additional learning opportunities for students.	Implemented
	2. Co-curricular organizations were asked to include in their action plan activities for students to showcase/ demonstrate skills/ competencies related to their discipline.	Implemented
	3. Information campaign/ dissemination was conducted for students to be fully aware of OBE implementation. (eg. giving of Flyers about OBE to students)	Partially Implemented
	4. Parents were oriented on OBE and its impact to students through a General Assembly	Not implemented
	5.The OBE Framework was clearly articulated to all employees, students, and other stakeholders.	Partially Implemented
Grading System Review And	1. Revisions in the grading system were done (and duly reflected in the grading policy) to ensure that performance evaluation is not limited to pencil-andpaper tests but also through practical tests/	Implemented

Process	Items	Description
Technology Enhancement	examinations to evaluate students' actual performance.	
	2.Teaching and learning facilities are upgraded for a responsive and conducive teaching and learning environment.	Implemented
	3. Web-based technology resources were made extensively available to provide more learning opportunities for students Eg. of web-based technology resources: multimedia materials, data repositories, journal publications, case study videos and movies, teacher resource websites, course management systems.	Implemented
Providing Support	1.Since teachers are expected to be producers of new knowledge in outcomes-based education, support structures for them such as but not limited to the giving of research incentives, financial support for paper presentations and publications are in place.	Highly implemented
	2. Since students are expected to be producers of new knowledge in outcomes-based education, they are given enough support like thesis advising/ mentoring and research incentives for them to be actively involved in research.	Highly implemented
	3. Intervention programs for students to cope up academically/ to master competencies were implemented by the faculty as evidenced by reports on remedial/ opportunity classes, academic counselling, and/or other corrective actions for learning that were conducted.	Implemented
	4. Scholarship grants are available for financially-challenged students but are able to demonstrate mastery of competencies (and are also academic achievers).	Highly Implemented - Implemented
	. A new office or position was created to oversee a sustained, effective and efficient OBE implementation. (eg. Continuous Quality Improvement Office, Center for Academic Development and Assessment; Outcomesbased Teaching and Learning Coordinator).	Partially Implemented
	6. Support structure was established for the Department Heads/ Program Chairs/ Academic Deans to provide assistance/ coaching for teachers to understand and implement OBE.	Highly implemented
	1. A Table of Specifications was revised and is now being used, as it includes the question's numbers, marks and their	Implemented

Process	Items	Description
Mechanisms to sustain OBE Implementation	relationship with the Course Learning Outcomes, Program Learning Outcomes and Taxonomy Level.	
	2. Teachers are required to use appropriate rubrics for constructive/ objective assessment of students' performance.	Highly implemented
	3. Evaluation tools on faculty's teaching performance were revised based on the expectations, skills, and methodologies needed in outcomes-based education.	Highly implemented
	4. Supervisory Evaluation Tools were revised for Department Heads/ Program Chairs to have an objective and clear assessment on how the teacher implements OBE.	Highly implemented
	5. Monitoring on the use of ICT and learning resources beyond class hours is done, as evidenced by the statistics on use of the materials in the library and laboratories.	Implemented
	6. Guide Questions (in the form of OBTL checklist) were given to teachers for them to regularly evaluate if they practice OBE. (E x a m p le s . o f q u e s tio n s : A r e t h e C L O s explained to students? Have you identified the teaching a n d le a r nin g a c tiv itie s t o f a c il itate the achievement of CLOs?)	Highly implemented
	7. OBE experts/ consultants act as "external auditors" to evaluate the sufficiency/ appropriateness of programs/ activities/ policies toward successful OBE implementation.	Highly implemented
	8. OBE experts/ consultants were invited to give input/ recommendations for OBE implementation. They also gave a training in OBE implementation.	Highly implemented
	9. Continuous Quality Improvement mechanisms are now developed/ polished/ integrated in the OBE Manual.	Implemented –
	10. Internal Quality Assurance mechanisms were developed for a sustained and successful OBE implementation.	Implemented
	11. ALL employees were informed about the internal quality assurance mechanisms for OBE implementation.	Implemented
	12. Feedback mechanisms (e.g. providing an online link for alumni) are in place for them to give feedback/ recommendations on how the program/ curriculum may be improved based on their on-the-job experiences.	Implemented – Partially Implemented
	13. Feedback mechanisms are in place for teachers to give feedback/ recommendations on how the curriculum may be improved based on their teaching experiences.	Implemented
	14. Exhibits of students' "Creative Works" are conducted annually.	Implemented
	15. An extensive information-dissemination was conducted for administrators, supervisors, academic and nonacademic personnel, and students to master the graduate attributes expected from any graduate from the institution.	Not implemented
Mechanisms to sustain OBE	**Program of Study by Term**	Highly implemented

Process	Items	Description
Implementation- - Delivery Checklist	Refers to the courses to be taken during the term and the objectives and expected competencies to be developed during the term.	
	OBTL Framework and Short Description Refers to the framework that presents a holistic view on how OBTL is to be implemented	Highly implemented
	OBTL-based Syllabus Template Refers to the template on how the syllabus should be written/ formatted and the essential guides for an outcomes-based teaching and learning	Highly implemented
	Course Assessment/ Evaluation System Refers to tools/ rubrics/ guidelines for assessment and evaluation	Highly implemented
	Faculty Qualifications Sheet Refers to updated faculty portfolios	Highly implemented
	Faculty Loading Sheet per Term Refers to the faculty load per term	Highly implemented
	Classroom Facilities Sheet Refers to the form needed to conduct an accurate inventory of facilities needed/ available in the classroom	Implemented
	Laboratory Facilities Sheet Refers to the form needed to conduct an accurate inventory of facilities needed/ available in the laboratory	Implemented
	Computing Facilities Sheet Refers to the form needed to conduct an accurate inventory of ICT-based instructional and learning materials/ activities	Implemented
	Learning Resources Sheet Refers to the form needed to conduct an accurate inventory of learning resources available and needed to meet learning outcomes	Implemented
	Faculty Development Support Sheet Refers to the form for teachers to indicate the faculty development support they need for OBE implementation	Implemented – Not implemented
	Student Development Support Sheet Refers to the form for students to indicate the faculty development support they need for OBE implementation	Not implemented

Findings show the need to: strengthen involvement of industry partners, experts, representatives from professional bodies and non-government agencies to review/ re-reformulate ILOs, PEOs and PLOs; and, base PEOs on alumni and employer survey results, as both were partially implemented only.

Highly implemented processes for the re-tooling of the faculty/ staff are: information dissemination for teachers to be fully aware of OBE; re-orientation/ intensive training on varied modes of assessment; and, conduct of benchmarking activities to observe how OBE is implemented in other HEIs.

However, there is a need for schools to conduct information campaign/ dissemination for other employees/ non-teaching personnel to be fully aware of OBE, as workshops/ in-service trainings on how to successfully implement OBE in instruction has to be done on a monthly basis (to fully acquaint teachers with OBE practices).

Orienting students and other stakeholders about OBE needs to be prioritized by the CICM schools. shows that only co-curricular organizations were given orientation on OBE and the possible inclusion of activities to expand learning opportunities for students.

Partially implemented are the information dissemination/ campaign for students to be fully aware of OBE implementation and the presentation of the OBE framework. The Parents' Orientation on OBE and its impact to students through a general assembly was not to be not implemented.

Budget allotment for OBE implementation supported the observed improvements in facilities particularly: the provision of web-based technology resources to provide more learning opportunities (eg. use of web-based technology resources, multimedia materials, teacher resource websites...). Upgrades in teaching and learning facilities were highly implemented to implemented as provision of web-based technology resources for expanded learning opportunities was implemented.

To ensure that performance evaluation is not limited to pencil-and-paper examinations, revisions in the grading system were implemented.

Highly implemented structures to provide support are: the giving of research incentives, and financial support for paper presentations and publications (for teachers to be producers of new knowledge in OBE); the establishment of support structures for Department Heads/ Program Chairs/ Academic Deans to provide assistance and coaching to teachers to implement OBE; and, the giving of support to students in the form of academic advising/ mentoring and research incentives (for students to be producers of new knowledge in OBE. The giving of scholarship

grants to financially-challenged yet competent students was found to be highly implemented to implemented. Findings show the need to review structures of intervention programs for better implementation of remedial/ opportunity classes, academic counselling, and/ or corrective actions for learning.

The creation of a new office or position to oversee a sustained, efficient and effective OBE implementation was found to be partially implemented only. Thus, CICM schools need to study further how the new office/ position shall function and work collaboratively with other offices for successful OBE implementation.

Sustain OBE Implementation

Highly implemented mechanisms to sustain OBE implementation are: use of rubrics for constructive/ objective assessment of students' performance; revision of faculty evaluation tools based on the expectations, skills and methodologies in OBE; revision of Supervisory Evaluation Tools for the heads/ program chairs to assess how teachers implement OBE; and, provision of guide questions for teachers to regularly evaluate if they implement OBE.

The presence of OBE experts/ consultants to give input/recommendations, and to act as "external auditors" to evaluate OBE implementation was highly implemented.

Implemented mechanisms to sustain OBE implementation are: the use of table of specifications to evaluate how questions measure the attained learning outcomes; the use of mechanisms for feedback-giving by teachers and students on how the program/ curriculum may be improved visa-vis needed competencies in the workplace; the information dissemination about the internal quality assurance mechanisms for OBE implementation; and, the conduct of exhibits for students' "creative works" to be showcased, regularly. Monitoring on the use of ICT and learning resources beyond class hours, to evaluate expanded learning opportunities for students, needs to be strengthened, as the extent of implementation differed among CICM schools.

Sustaining OBE implementation also requires the implementation of an extensive information dissemination for administrators, supervisors, academic and non-academic personnel, and students for them to master graduate attributes and target the attainment of the said attributes. Such was found to be not implemented by CICM schools.

Table 6 also shows that many of the delivery checklists which are essential components/ mechanisms to sustain OBE implementation are highly implemented. However, extent of implementation of the following checklists was varied: classroom facilities sheet; laboratory facilities sheet; computing facilities sheet and faculty development support sheet. The use of Student Development Support Sheet is not yet implemented by CICM schools.

Problems / Challenges Encountered in the Implementation of OBE

Generally, the problems/ challenges encountered in OBE implementation revolved around the following themes: orientation, revision/ evaluation/ improvement of the syllabi, alignment of outcomes vis-a-vis modes of assessment, OBE implementation in the classroom, sufficiency of resources, and the monitoring and evaluation phase.

Confusion on what outcomes-based education really is was a problem during the orientation phase. Responses in the question on the challenges/ difficulties in OBE implementation included: “Levelling off of concepts to OBE;” “Many teachers were not really able to understand fully what the OBE is all about;” and, There were some students specially the incoming students who are not aware of what OBE is”

The insufficiency of time to fully develop an OBEdized syllabi was another problem/ challenge. Such was manifested in the responses, which include: “We are still having a hard time improving our syllabi in terms of aligning learning outcomes to assessment tasks. The demarcation line of PLO, CLO, ILO is still vague for us.” “Lacks time in preparing OBEdized syllabi.” “Number of syllabi to revise within a limited time.” “OBE syllabus, too cumbersome to design.

Table 7.. Problems/ challenges:

Description of problem/ challenge	**TOTAL No. of related comments**
Orientation Phase	
Clarity on what outcomes-based education really is	9
Revision/ Evaluation/ Improvement of Syllabi	
Insufficient time to fully develop an OBEdized syllabi	**10**
Aligning Outcomes and Developing Modes of Assessment	
Differentiating and correlating PLOs, CLOs and ILOs; Re-aligning outcomes; Identifying and formulating relevant learning outcomes and competence descriptions;	**11**

Aligning learning outcomes to assessment tasks	**9**
OBE Implementation in the Classroom	
Time constraints in the attainment of daily lesson objectives; Insufficient time to implement learning activities/ learning plans;	**10**
Identifying/ designing alternative activities to address diverse learning styles	**8**
Sufficiency of Resources	
Lack of resources (LCD projectors, e-resources...) for technology-aided instruction	**6**
Lack of instructional and learning resources	**5**

However, even with the insufficient time to revise the syllabi, respondents remained optimistic and responsive to accomplish the task, as manifested in this response: “Change is inevitable. At first, I’m a bit reluctant to accept OBE, but when I came to know more about it, I appreciated it and started to do the tasks of improving our syllabi into OBE format. Since it focuses more on the outcome, I started to assess my strategies and think of the most appropriate techniques to best impart the concepts and skills to my students.”

Problems/ challenges related to the alignment of outcomes and development of appropriate modes of assessment are: the clear differentiation and correlation between the institutional outcomes, program educational objectives, program learning outcomes and course learning outcomes and the alignment of learning outcomes to assessment tasks.

Some of the responses to support the problem are: “Difficulty of aligning program learning outcomes to course learning outcomes.” ‘Learning outcomes and competence descriptions are sometimes difficult and time consuming to construct.” “The alignment of class activities to the program outcomes of the school.”

“Some of the challenges that I encountered while implementing the OBE were the following: 1) Designing appropriate learning activities or learning tasks where students can demonstrate what they learned in a particular subject. Some topics may not at all be output-oriented. 2) Preparation of rubrics for a specific learning activity. 3) Differentiated learning activities/ tasks for the students”

OBE implementation in the classroom was also met with problems/challenges. Those are: Time constraints in the attainment of daily lesson objectives/ insufficient time to implement learning activities/learning plans; and, identification/ design of

alternative activities to address diverse learning styles. Respondents mentioned of: “Insufficient time devoted to the task;” and, “The need to plan ahead any lesson and the corresponding outcomes should really be looked into or given attention for effective teaching-learning be realized.” Concern on the number of students to manage per class was also reflected in the response: “I had so many students and I had a hard time monitoring them in all their activities. Even evaluating and giving feedbacks were some of the problems I encountered.”

Problems/ challenges related to the sufficiency of resources were also presented. Those are: lack of resources (LCD projectors, e-resources) for technology-aided instruction (with 6 related comments); and, lack of instructional and learning resources (with 5 related comments). Responses related to these are: “Lack of LCD or learning materials and limited e-resources.” “The OBE calls for a more developed and enhanced technological skills. Teachers then must be equipped with more in-depth training to develop such skills like using blogs, wikis, and other online sources. Moreso, if internet connection in the school can be more accessible, this will help teachers to easily access more updated resources.” “Classrooms are not ready for the use of technology in teaching. There are not enough LCDs that can be used in the classroom. Most students are very difficult to motivate in participation.”

Impplemented were the good practices/ activities to overcome the challenges/ problems encountered in OBE implementation Generally, the implemented activities/ adapted good practices to resolve the challenges/ concerns in OBE implementation revolved around the following themes: orientation, collaboration among the faculty, focus on the revision/ evaluation/ improvement of syllabi, OBE implementation in the classroom, monitoring and evaluation.

In Table 8,good practices/ activities related to orientation are: Seminar-workshops given to the administration, deans/ Department Heads and Program Chair, and the faculty (with 26 related comments); trainings were conducted in series for the sustained professional development of the faculty; conduct of regular, departmental/ faculty meetings; and, workshops on the preparation of the OBEdized syllabi. Some of the responses that support the good practices/ activities related to orientation are: Conduct of “OBE Seminar before the semester starts...” “Seminars and workshops were given – these were given as a school and then as a department. Intense monitoring by the headswas done..” “Teachers were also given seminar-workshop on syllabus incorporated with OBE. They were also given training workshops on rubric preparation and table of specifications.”

Collaboration among the faculty is also considered a good practice in OBE implementation. Collaboration was in the form of mentoring or peer discussion

among the faculty which included: intensive monitoring/supervision by the heads; sharing of varied modes of assessment among the faculty (as stated in the responses: “Collaboration with co-teachers”; “Our coworkers let us help them construct/ make the OBE eventhough, we are contractual. They let us be involved so that we will also know or answer some of our questions about OBE;” sharing of professional readings of teachers; team teaching; and, “Each One, Help One” Method.

Challenges/ concerns in the revision/ evaluation and improvement of syllabi were overcome because of the following: sharing and checking of syllabi (if OBE concepts/ principles are integrated; if CLO alignment is observed) and, collaboration among the faculty during the syllabi review/ enhancement and the identification of modes of assessment. Such were supported by the following responses: “Syllabus is shared and checked for the integration of OBE concepts/ principles tackled during the series of workshops.” “Individual mentoring on the preparation of OBE syllabus” “Presentation of OBEdized syllabi – We learned from the positive and negative comments.”

However, limited sharing on good practices on OBE implementation in the classroom manifests the need for a strengthened OBE implementation by the faculty, in their classes. Initial activities had been done, as stated by the respondents: “Department Heads give suggestions on how to improve teaching based on what she observed;” and, “The creation of the Course Learning Outcomes (CLO) alignment to support the syllabus/ syllabi made. Instructors utilized authentic assessment tools like rubrics to evaluate demos, performances of students.”

Table 8. Good practices/ activities:

Good practices/ activities	**No.**
Orientation Phase	
Seminar-workshops given to the Administration, Deans/ Heads and the Faculty	26
Series of Trainings for Professional Development of the faculty	12
Regular/ departmental faculty meeting	12
Workshops on the preparation of an OBEdized syllabus	7
Collaboration among faculty	
Mentoring or peer discussion among the faculty	**11**

Revision/ Evaluation/ Improvement of Syllabi	
Sharing and checking of syllabi (if OBE concepts/ principles are integrated) / CLO alignment	**11**
Collaboration among the faculty (during the syllabi review/ enhancement; Identifying modes of assessment)	**10**
OBE Implementation in the Classroom	
Constant referral and checking of output	**2**
Classroom observations were conducted to monitor OBE implementation	**2**
Modular approach	**1**
Students are given opportunities to showcase their outputs (culminating activities)	**1**
Use of authentic assessment tools	**1**
Monitoring/ Evaluation Phase	
Creation of the technical staff/ technical working group to spearhead/ monitor OBE implementation	**3**
Support given by the administration	**2**
Manual of OBE Implementation is in place.	**1**
Benchmarking	**1**
Creation of the quality improvement office	**1**

Strengthening monitoring and evaluation on OBE implementation is another area that has to be looked into. Manual of OBE Implementation has to be finalized and disseminated to the faculty and staff, while the creation of a Quality Improvement Office (on OBE) or an OBTL Coordinator may be included in the plans towards full OBE implementation.

Continuous Quality Improvement Mechanisms for OBE implementation applied by the different CICM Schools

University of Saint Louis. The draft of the Academic Continuous Quality Improvement Mechanisms of University of Saint Louis has been forwarded to the University President for review/ recommendations and approval. There is a need to develop CQI Mechanisms specifically for OBE Implementation.

Saint Louis University. Presented in the Saint Louis University Manual on Outcomes-based Education System are the steps to Continuous Quality Improvement which are: 1) Developing Program Educational Objectives based on Vision, Mission and Goals; 2) Translating PEOs as Program Outcomes; 3) Specifying the indicators for the outcomes to be measured; 4) Preparing to collect data on the indicators; 5) Trying out the outcome measurement system; 6)

Analyzing and reporting the findings; 7) Improving the outcome measurement system; Using the findings for the program improvement (Refer to more details about the steps in the Appendices.) It is worth mentioning that the SLU Manual on OBE Implementation includes a timeline for the implementation of the Continuous Quality Improvement Mechanisms.

Saint Mary's University and Saint Louis College. Saint Mary's University and Saint Louis College mentioned that their Continuous Quality Improvement Mechanisms for OBE implementation are being reviewed prior inclusion in the OBE Manual.

CQI Mechanisms on OBE implementation is a work-in-progress by most CICM schools. Drafted CQI mechanisms will undergo a series of reviews, revisions and recommendations for approval of its implementation. Formulating a clear timeline for OBE implementation is a good practice for institutions to sustain its efforts towards OBE implementation.

DISCUSSION

The significant findings of this study are discussed with existing literature on the factors for successful OBE implementation, preferred trainings of the Teacher Education faculty and the corresponding modes of delivery of the professional development program, and the structures, processes and procedures for OBE implementation to be successful, effective and efficient.

Extent of implementation of outcomes-based education along the four principles of spady

Findings on the significance of syllabi affirm the view of Lam (2013) that aligning curriculum objectives with the learning and teaching process is crucial to identify what has to be implemented and learned for curriculum effectiveness. Program alignment, embedded in Spady's OBE (Thomas, 2013) and implemented by MAPUA (Navalata, 2012), is very relevant to identify measurable learning outcomes (Johnson, 2006), that need to be reflected in the syllabi. Syllabi review/ enhancement done by CICM schools implement the following guidelines stated in the CHED Handbook on Outcomes-based education: syllabi, containing the "learning outcomes, the learning resources to be used, the requirements, the grading system, and relevant policies for the class" (CHED Handbook on Typology, OBE..., 2014).

However, identifying suitable assessment tasks (CHED Handbook on OBE, 2014) require teachers' continuous involvement in formulating and evaluating program educational objectives, revising the course syllabi vis-a-vis desired outcomes, and designing assessment tasks (Navalata, 2012).

Making students aware of the implementation of outcomes-based education and the relevance of learning outcomes (and what those learning outcomes are) support the findings in the study of Deneen (2013) of the need to exercise transparency regarding the OBE process and its impact to the curriculum. Teachers in the College of Education have to continuously support the need for transparency of what OBE is and the corresponding learning outcomes to fully implement Spady's advocacy of the "no surprises philosophy" (Spady, 1994). It is only when teachers clearly and consistently articulate learning outcomes that students can also clearly and consistently attain the said learning outcomes, with the appropriate learning environment (Spady, 1994; CHED Handbook on Typology, OBE and ISA, 2014; Henry & Jukik, 2014). Regularly monitoring how students are able to cope with the new educational approach (An, 2014), and how extensive the support is for teachers to constantly elevate learning outcomes to improve professional competencies (Quijano, 2015) also need to be done.

Highly observed increase in student-centered activities support the expectation from teachers that they are facilitators of learning (CHED Handboook on Typology, OBE and ISA, 2014), and provide varied learning opportunities to achieve learning outcomes, with due consideration of students' learning styles (Quijano, 2015; Johnson, 2006; An, 2014). Recommended learning opportunities and interventions are: using customized instruction, culturally responsive curriculum, use of small group discussion, and building-up of students' portfolios (Paolini, 2015; Hilario, 2015).

Providing an environment of learning and working together (highly observed in this study) supports a significant finding in the research of Goodman et.al. (2011) and Sagayadevan & Jeyaraj (2012) that high-quality interaction of students with teachers promote student learning, while providing learning spaces make students more engaged and independent, lifelong learners (Graham, 2012). Opportunities for practice were also found to increase students' confidence towards competencies (Bedrow & Evers, 2010).

Use of varied modes of assessment (as highly observed) may be evaluated further to check how it validly evaluates the attainment of the learning outcomes (Carless,

2007). Extending beyond the pen-and-paper test as a mode of assessment supports what assessment should really be, as stipulated in the CHED Handbook on Typology, OBE and ISA (2014) - that result of assessment should really reflect the attainment of desired competencies (proven by measurable outcomes, graded outputs, and documented/ and graded performances...).

Sustaining the balance between the teacher-centered and the student-centered approach may be a response to the need for more orientation and empowerment given to students in an outcomesbased setting. Students were observed not to actively engage in class discussions/ forum because of the fear of being embarrassed (when wrong answers are given/ when poor performance is shown) (Israel, 2015).

Teachers' observed acceptance of their role to design, use and evaluate instructional materials and technology support the expectation that teachers are "designers of learning environments" (Johnson, 2006) and that they are expected to prepare relevant instructional materials (Raehpour, 2013). Moreover, expanding the learning environment demands that teachers integrate online learning (Salter et.al., 2009) and other ICT-based materials because students were observed to be more focused and more interested in class activity, thereby contributing to the attainment of learning outcomes (Egaga & Akinwumi, 2015). The impact of a more interesting and stimulating learning environment (with ICT) is further supported by the findings in the research of Remedios and Lieberman (2008) that stimulating, interesting and relevant courses increased students' involvement in the course.

Even with the openness of teachers to integrate technology in instruction, there has to be a constant assurance of their preparedness and willingness to maximize ICT (Marzilli, 2014). Such assurance is needed because teachers were observed to have no time or motivation to maximize ICT in instruction, particularly the use of learning management systems (Christie & Jurado, 2009).

Since teachers were found to observe (only, not as frequently as highly observed) the design and use of instructional materials and instructional technology, there is a need for teachers to have customized in-service trainings on ICT use (Egaga & Akinwumi, 2015; Christie & Jurado, 2009; Rogers, 2000; De Morentin, 2011; Zayapragassarazan & Ramganesh, 2010). Training should not only be technical though. Studying students' learning styles is equally important to maximize the learning experiences that may be ICT-based (Rogers, 2000; Spady, 1994).

Lack of knowledge of ICT use, lack of access to ICT-based instructional and learning materials (Zayapragassarazan & Ramganesh, 2010) and insufficient technology and workspaces for teachers to prepare ICT-based instructional materials (De Morentin, 2011; Zayapragassarazan & Ramganesh, 2010) are possible reasons that need to be overcome.

The highly observed indicators of setting high expectations for high level of success support the standpoint of Paolini (2015) that "The best teachers provide high expectations." It is in setting high expectations that students are treated as adults (highly observed in this study) and become independent learners, who can equally collaborate, interact and work well with others. The impact of setting expectations to students and their capacity to achieve learning outcomes because of the expectations is further proven in the research of Davies & Hamilton (2006).

Setting expectations can only be effective if rubrics/ criteria/ parameters are set and communicated to students. Such highly observed indicator of setting high expectations affirms the impact of high expectations to students, which are: students become more driven to learn (Salter et.al., 2009), more reflective of the evaluation of their work/ output (Hendry & Jukic, 2014), and more guided to accomplish requirements based on teachers' expectations (Huang & Gui, 2015).

To evaluate if expectations/ learning outcomes had been met, assessment is done by the faculty. This meets what is stated in the CHED Handbook on Typology, OBE and ISA (2014) which specifies that assessment tools should objectively measure if desired competencies/ learning outcomes were really met. Objectively evaluating performance can only be done if assessment tools include a wide range of methods (Bello & Tijani, 2010) that will not hinder students' capacity to learn (Henry & Jukic, 2014). Giving grades to students based on the extent of his/ her mastery in the expected competencies (as highly observed by the respondents) requires teachers to meet and concur on exams, grading rubrics, and criteria to measure desired competencies/ outcomes (Johnson, 2006). Further evaluation of the administered examinations may form part of the recommendations of this study. Moreover, teachers should be extra cautious in simply using assessment tools to give grades. Rather, the tools should be used to diagnose development of students' competencies, and the needed interventions for further improvement of competencies (Johnson, 2006).

The result that informing students of the criteria/ performance standards is only observed requires that teachers should present the standards more frequently. As stated in the study of Adnum (2012), communicating task expectations with utmost

clarity and giving feedbacks for the refinement of tasks create positive impact to learners.

Conducting exhibits, practicing skills learned in class (beyond the class hours), using online tools... are just some of the highly implemented expanded opportunities and support towards OBE. Providing new learning opportunities for students challenge them to go beyond their "comfort zones" (Paolini, 2015) as they feel involved and empowered (Johnson, 2006; Remedios & Lieberman, 2008) and obtain a higher level of confidence (Bedrow & Evers, 2010). Showcasing students' output through exhibits is a learning opportunity for students to understand what excellence is, as their creative works and innovation are recognized (Johnson, 2006). The highly observed activities/ learning opportunities also support Spady's belief that students should perform beyond the routine assignments and develop "ultimate performance capabilities" (Spady, 1994).

The implemented indicators of expanded opportunities for learning support Spady's advocacy that chances for learning should not be defined and limited by time, place and methodology (Spady, 1994). Rather, as supported by the findings, students are given assignments, projects, references for them to work on, even beyond the class hours (Borsoto, et.al., 2014). However, the frequency of use of expanded opportunities (implemented) as valuable sources of assessment varies from one teacher to another (Bello & Tijani, 2010). Teachers are challenged to provide more expanded opportunities due to time constraints. Such concern is further proven in the researches of Graham (2012) and Salter et.al. (2009) who found out that the evolving roles of teachers resulted to very complex teaching and overwhelming academic workload. Thereby, affecting their ability to plan and implement expanded learning opportunities beyond their usual roles.

Among the range of expanded opportunities and support, organizing short trips/ tours/ educational field trip for students is not implemented. Conducting field trips is considered relevant in providing learning opportunities beyond the classroom (Borsoto, et.al., 2014). However, requirements to process field trips, the strict policies, regulations and guidelines that are in place hinder teachers from organizing such expanded learning opportunity.

Training Needs of the Teacher Education Faculty along Spady's Principles for OBE implementation

The highly prioritized trainings for professional development towards outcomes-based education prove that Teacher Education faculty recognize the need for a customized training program. Professional Development Programs are relevant for

teachers to: gain deeper understanding of topics; continuously develop knowledge, attitude, skills/competencies in teaching; strengthen collaboration among the faculty; shift perspectives; and respond to evolving learning systems (O'Hara & Pritchard, 2008; Lieff et.al., 2012; Boerboom et.al., 2009; Haviland, 2010; Gunersel & Etienne, 2014; Borsoto et.al., 2014).

High prioritization towards training needs supports findings in the researches of Boadu & Acquah (2013) and Light & Drane (2009) that teachers strongly favour faculty development opportunities. Moreover, teachers' decision to choose all the training needs (as highly prioritized) will support the need for teachers to have a range of training programs to choose from (Boman & Matus, 2013; Sarabdeen, 2013). That teachers need specialized training related to ICT-integration in teaching and learning is similar to the prioritized specialized training need identified in various researches (Zaharias, 2003;, Ali et.al., 2010; Christie & Jurado, 2009; Egaga & Akinwumi, 2015; Zayapragassarazan & Ramganesh, 2010; and Rogers, 2000).

In earlier studies, the following schools confirmed the relevance of having a capability-building program towards OBE implementation through a series of trainings and other faculty development programs: Mapua Institute of Technology, Technological Institute of the Philippines, Batangas State University and other Higher Education Institutions (Westrup, 2009; Llanes, 2014; Navalata, 2012; and Castillo, 2014).

Preferred Types of Professional Development Programs for the Faculty

The choice of highly preferred and preferred mode of delivery of professional development program affirm that training methodologies vary as it would depend on the objective, the target group and the content of the training program (Kedem, ___; Boman & Matus, 2013). The mode of delivery for a particular training will need to consider the schedule when the training will be (O'hara & Pritchard, 2008), as variations in the mode of delivery have to be observed to avoid overwhelming the faculty in the series of training programs (Raehpour, 2013). Moreover, considering the preferred mode of delivery provides greater assurance of faculty participation in the training program (De Morentin et.al., 2011).

Some of the highly preferred modes of delivery contradict the findings of Raehpour (2013) when in-service trainings and mentoring were not observed to be most valuable to the faculty. However, the same research supports the findings that membership in professional organizations and informal dialogues with colleagues/

other faculty provide meaningful support in continuing professional development (Raehpour, 2013).

The highly preferred modes of delivery, specifically constant mentoring and coaching, informal dialogue with colleagues to improve teaching approaches, and active membership in professional communities affirmed the research findings that teachers preferred face-to-face sessions to come together, present concerns related to tasks, and share good practices to deliver the content (O'Hara & Pritchard, 2008).

The appropriateness of the mode of delivery, and in consideration of other factors (such as choice and responsiveness, and collaboration among colleagues), is certainly crucial for training programs to be successful, relevant and effective (Kedem, ___; Boman & Matus, 2013).

Academic Structures of Processes in the Teacher Education Program for OBE Implementation

Highly implemented processes and procedures show CICM schools' implementation of the guidelines set in the CHED Handbook on Typology, OBE and ISA (2014). Implemented guidelines/ procedures are: Review of the Institution's Vision, Mission and Goals; Formulation of Institutional Outcomes, Program Outcomes (also referred as Program Educational Objectives) and course outcomes (also referred as Program Objectives); and the use of PSGs, HEI type, and other standards from accrediting bodies to formulate PEOs and POs.

In the context of curriculum review and syllabi revision, processes and procedures also met CHED guidelines on OBE implementation. Those highly implemented are: the integration of modes of assessment in the syllabi as basis to measure learning outcomes; and, the syllabi having the needed details (learning outcomes, content, methodology, learning resources, requirements, grading system and classroom policies) as specified in the CHED Guidelines. The re-alignment of outcomes is similar to a good practice considered as relevant in the implementation of OBE (Llanes, 2014),

Inviting other stakeholders / representatives during the curriculum review implements the guideline stated in the CHED Handbook on Typology, OBE and ISA (2014) and the good practice of involving and empowering the faculty in the formulation of Institutional outcomes, PEOs and POs (Navalata, 2012). However, since curriculum review is implemented (only), schools have to integrate in the

policy/ guideline the need to conduct regular curriculum review and continuous curriculum planning, with emphasis on syllabi review/ enhancement (Lam & Tsui, 2013). Using the table of specifications support the direction for teachers to meet and create “test banks, alternate tests and grading rubrics” (Johnson, 2006). Implementing service learning programs/ community engagement for students to apply theories, competencies learned or developed in class support Spady’s advocacy that courses should meet culminating outcomes (those that students are expected to do after their official learning experiences) (Spady, 1994). Students involved in service learning were found to obtain very high evaluations in civic responsibility, academic development, educational success, career and teamwork (Prentice & Robonson, 2010).

Since the written guidelines to implement the processes and procedures are yet to be finalized, the schools need to finalize the draft and endorse for review and approval. Such is to avoid multiple options for implementation that may cause confusion during implementation (Kennedy, 2011).

Implemented activities that develop students’ competencies (to achieve learning outcomes) apply the recommendation that students should be immersed in organizing seminars, collaborating with others, and interacting well with peers (Quijano, 2015; An, 2014). Such exposures create new opportunities for practice, essential for students’ confidence to increase (Bedrow & Evers, 2010). The implementation of remedial/ opportunity classes, academic counselling and/ or other corrective actions for students support Spady’s view that teachers act as “teachers AND mentors” by providing counsel and other forms of academic support to students (Spady, 1994).

Re-tooling the faculty for OBE implementation through professional development programs always demands budget allotment. Providing the needed facilities for teachers to deliver outcomes-based teaching and learning also requires a big chunk of the budget. Even with the budget allocation for OBE implementation, schools need to partner with alumni, parents, non-government organizations and industries to provide enough ICT facilities and other resources, and opportunities for professional development (Egaga & Akinwumi, 2015). Such is a response to the findings that teachers had concerns on the sufficiency of budget for trainings and purchase of ICT facilities essential to integrate blended training methods (Akarawang et.al., 2015; Johnson, 2006; Zayapragassarazan & Ramganesh, 2010). Classrooms should be well-equipped with the technology for teachers to use a range of instructional aids (ICT-based), essential towards a more interactive learning (Johnson, 2006).

Implemented internal quality assurance mechanisms need to be written, reviewed, finalized and disseminated for everyone (academic and non-academic personnel) to be aware of the mechanisms. CHED Handbook on Typology, OBE and ISA (2014) states that: “the HEI has to acquire, that is, continuing its quality reforms,... by implementing Quality Assurance systems. The HEI can develop a program for CQI that will help it move through the different levels of performance.”

Partial implementation of the creation of an office to oversee a sustained, effective and efficient OBE needs to be highly implemented. The experience of schools on OBE implementation emphasized the creation of the Continuous Quality Improvement Office (Navalata, 2012) or the Center for Academic Development and Assessment (Orosa, 2012) for the successful and sustained implementation of outcomes-based education. Other partially implemented processes/ procedures/ structures need to be looked into and fully implemented by the CICM schools.

Conducting a general assembly for parents and strengthening orientation on OBE implementation (across all employees and stakeholders – administrators, supervisors, academic and non-academic personnel, students, parents...) need to be implemented by CICM schools. Information dissemination about Outcomes-based Education is considered one of the effective practices (Llanes, 2014) for its implementation. The research of An (2014) states that, for effective OBE implementation, students should be fully aware of any educational practice newly implemented in schools. Such awareness will help them evaluate what adjustments need to be done, in the context of learning. Criticism on OBE implementation was also related to the lack of understanding of parents on what outcomes-based education is (Crump, 2004). Thus, there is a need for an extensive information dissemination about OBE.

Problems / Challenges encountered in the Implementation of OBE

Faculty resistance to implement outcomes based education was found to be one of the most common concerns of institutions (Harden, 2007; Navalata, 2012; Hilario, 2015). The need for retooling for teachers to fully understand and embrace outcomes-based education support the findings in the researches of: Pastrana & Manabat, 2012; Harden, 2007; Donnelly, 2007; Laguador & Dotong, 2014; Diaz et.al., 2010; Ali, 2010; Zayapragassarazan & Ramganesh, 2010. It is only when teachers fully understand what outcomes-based education is, and its relevance, that processes, procedures and structures for its implementation will be welcomed by all.

The concern of the faculty in aligning activities with learning outcomes and assessment affirms the findings in other researches that: an assessment system that is not punitive should be developed; trainings on assessment skills should be conducted; assistance for clearer understanding on how to align the curriculum objectives with what is implemented and learned is needed; and, the need to identify a range of assessment methods to choose from, to respond to the difficulty in identifying appropriate assessment tasks (Hilario, 2015; Navalata, 2012; Harden, 2007; Laguador & Dotong, 2014; Diaz, et.al., 2010; Lam & Tsui, 2013; Ali et.al, 2010; & Johnson, 2006).

The concern on the sufficiency of resources was also noted in other research findings stating: Enhanced ICT use in Higher Education institutions requires a holistic approach – from the trainings on how to use the ICT for instruction and the facilities to support it (Zayapragassarazan & Ramganesh, 2010); Teachers need to be provided with the appropriate resources in OBE implementation (Donnelly, 2007; Diaz, 2010); The need for instructional computer technologies is further confirmed in the findings of Ali (2010). Customizing classrooms, with the needed instructional technologies (and the corresponding software) is also emphasized in the research of Johnson (2006).

The insufficiency of time to revise the syllabi, as it was mentioned by the faculty for several times, is also a concern that needs to be properly addressed.

Good Practices/ Activities to overcome challenges/ problems encountered in OBE implementation

The positive impact of faculty development programs to resolve concerns on the lack of teachers' preparedness and understanding to implement OBE is confirmed by research findings. The need to retool the faculty through professional development programs (Pastrana & Manabat, 2012; Westrup, 2009) is further supported by findings that development programs increase employee productivity, motivation and satisfaction (Lieff et.a., 2012) and direct teachers to shift from a teacher-centred to a learner-centred approach in teaching (Gunersel & Etienne, 2014; Postareff, 2007; Light et.al., 2009; Boerboom et.al., 2009). Several schools also confirmed the importance of professional development programs for OBE implementation (Navalata, 2012; Castillo, 2014; Laguador & Dotong, 2014; Llanes, 2014;) as interprofessional collaboration towards capacity building was also strengthened (Silver & Leslie, 2009; Haviland et.al, 2010).

Findings on the varied types of professional development programs support the findings that variations are needed (Raehpour, 2013), focus may vary (focus on technical training or pedagogy)(Rogers, 2000), depending on the result of training needs assessment (Ali, 2010).

Collaboration and mentoring, found to be effective in resolving concerns in OBE implementation, support a research finding that teachers need guidance especially when new educational systems or approaches are to be implemented (Diaz et.al., 2010). The need of teachers to have mentors (Johnson, 2006) and the need for teachers to work with colleagues/ peers (Diaz et.al., 2010) support Spady's advocacy of the need for teachers to work as groups in determining outcomes (Spady, 1994). Syllabi revision would not have been done without collaboration and mentoring.

The series of trainings given to the faculty and the creation of the OBE Committee and the Technical Working Group manifest the support of the administration to OBE implementation. Its relevance is confirmed in the research finding that administrative support and its leadership were crucial in achieving program goals, with employees having a common sense of purpose (O'hara & Pritchard, 2008). However, the administration has to sustain, if not strengthen, momentum of OBE implementation (Kaliannan & Chandran, 2012), with further evaluation of the need to reduce academic workload (Salter et.al., 2009) and reduce advising and course loads (Georgina & Hosford, 2008) for teachers to cope with the new academic demands (use of rubrics, table of specifications, preparation of varied assessment tools and ICT-based instructional materials) needed in the successful implementation of outcomes-based education.

CONCLUSION

The implementation of outcomes-based education is certainly a journey of shifting mindsets, realigning outcomes, and retrofitting academic structures.

Shifting mindsets towards OBE implementation summarizes how teachers had to re-tool and reorient themselves on OBE system, as they had to overhaul conventional approaches in teaching and learning. The shift from a teacher-centered approach to a student-centered learning challenged teachers to provide relevant learning activities (regardless of time, distance and place) to achieve learning outcomes. Continuous shift of mindsets also meant the need to revamp

obsolete or traditional modes of assessment to pave way to outcomes-focused assessments challenged teachers to continuous shift mindsets.

Realigning outcomes, as an essential component of OBE, had to be done as schools re-calibrated institutional outcomes, program educational objectives and program learning outcomes. Opportunities for students to demonstrate outcomes had to be extensive through a series of skills demonstration, practical exercises, service learning programs, creative works and other equally relevant opportunities for the outcomes to be visible, measurable and aligned.

Retrofitting academic structures and processes formed part of every school's commitment towards OBE implementation. The anticipated creation of an office or a position to oversee OBE implementation, the identification and development of CQI mechanisms, the collaboration among colleagues and across departments, and the funding for technology upgrades were just some of the retrofitting that had to be done.

RECOMMENDATIONS/ IMPLICATIONS for FURTHER RESEARCH

Sustaining the initial efforts in OBE implementation requires the sustained commitment from the administration, the academic heads, the faculty, the non-teaching staff, the students and other stakeholders. There has to be a continuous review and enhancement of the ILOs, PEOs, PLOs, the syllabi, and rubrics for assessment (and even table of specifications). Information dissemination about OBE has to be extensive, as more resources for ICT-integration in instruction (essential in providing expanded learning opportunities) become more available and accessible.

Capacity-building programs for OBE implementation should be anchored on results of training needs assessment for those to be highly customized and responsive. Moreover, a Continuing OBE Professional Development must be in place to provide up-to-date information about this educational paradigm. The Manual and the CQI Mechanisms for OBE have to be finalized, and disseminated to employees, for guidance and implementation.

Validity and appropriateness of assessment tools to measure learning outcomes need to be constantly updated as more innovative learning platforms (including those that are ICT-based) should be identified.

Possible reduction of teaching loads for teachers to have more time in instructional planning and course design may be studied further, as the preparation of the Table of Specifications and rubrics may be evaluated further.

Future researches may focus on the extent of students' awareness of what outcomes-based education is and the observed indicators that correspond to OBE implementation. Further validation of the Outcomes-based Teaching and Learning (OBTL) Checklist for the Faculty, designed through this study, is also recommended.

Researches may also be conducted on the development and validation of assessment tools to measure the attainment of Program Educational Objectives, Program Learning Outcomes and Course Learning Outcomes, as relevant impact of OBE.

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