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Original Paper

Implementation of Outcomes—Based Education in the Graduate School Level at St. Paul University Philippines

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Abstract

The study assessed the implementation of Outcomes-Based Education (OBE) in the Graduate School level at St. Paul University Philippines for the past four years. The study employed the mixed approach, covered faculty and students as its participants, and utilized a validated survey tool for data gathering. Quantitative data were analyzed using mean, frequency and percentage count, rank, standard deviation, and independent t-test while the qualitative responses were analyzed through thematic analysis. Results show that students, both for master and doctoral programs, consistently rated the implementation of the OBE approach along instructional design, learning activities, and assessment strategies as "very high". Administrative support, teachers' commitment and students' acceptance of the OBE approach are the top three key factors that facilitated OBE implementation. The administrators' periodic feed-backing mechanism and close monitoring scheme from the top level to the program level as well as the teachers' adequate knowledge and commitment to OBE hastened the implementation of the approach. Students considered the instructional activities as very relevant and meaningful as these provided learning contexts where their specific skills and competencies are concretized. Students' heavy workload in their work stations and their limited exposure to various technologies are some of the barriers to the implementation of OBE.

Keywords

higher education, outcomes-based education, outcomes-based teaching and learning

1. Introduction

Future workforce resources need to be equipped with the desired skills to help them succeed in the 21st—century workplace and to remain competitive in a fast-changing job market in the years ahead. Applied Education Systems (n.d.) postulated three skills categories that are vital for 21st—century survival (i.e., learning skills, literacy skills, and life skills). Learning skills encompass critical thinking, creativity, collaboration, and communication. Literacy skills include information literacy, media literacy, and technology literacy. Life skills involve skills such as flexibility, leadership, initiative, productivity, and social skills**.** More of these skills are listed in the 21st Century Framework of Wagner (2011), NCREL and Metiri Group (2000), Iowa Department of Education (2010) and The Partnership for 21st Century Learning (2009). The aforecited frameworks have slight differences; however, all agree on four critical areas for skills development. These are collaboration and teamwork, creativity and imagination, critical thinking and problem solving (Envision, n.d.).

The best strategy to prepare every Filipino in meeting the desired skills and competencies in the 21st century and in facing the challenges of globalization is to revitalize instruction and to change learning paradigms. Schools must embrace new learning paradigms based on emerging theories about how people learn, effective uses of technology, and 21st—century skills in the context of rigorous academic content (NCREL & Metiri Group, n.d).

For the past few years, the Philippine government has been implementing educational reforms to ensure that instruction in schools promotes the acquisition of 21st—century skills. Among these reforms in the basic education level was the Implementation of the K-12 Program in 2013 (RA 10533), the Universalisation of Kindergarten in 2011-2012 (R.A.10157, Section 4), and the use of mother tongue-based multilingual education (MTB-MLE) (R.A.10157, Section 5).

Several higher education institutions in the country and abroad opted to shift from an inputs-based approach to an outcomes-based learning approach commonly dubbed as Outcomes-Based Education (OBE) (Alderson & Martin, 2007). OBE is a paradigm shift from the usual "input-process-output" to the "input-process-output-outcomes" learning model which underscores the need to focus on what is expected of the students to become. The OBE is a recurring education reform model which is based on a student-centered learning philosophy and focuses on the output (outcomes) instead of the input (taught) (Spady, 1994). OBE is driven by assessments that focus on clear learning outcomes and not other factors such as what is taught and the duration taken by the student to achieve the outcomes (Willis & Kissane, 1995). This recent trend in higher education requires an increased emphasis on teaching and learning, recognition of the scholarship of teaching; and shift of focus from teaching to learning (Biggs & Tang, 2007).

This shift of learning paradigm, especially in higher education, is essential and necessary as globalization is on the wave. Schools should not only prepare students for the acquisition of professional knowledge but must also make them perform hands-on activities that allow knowledge application to practical work scenarios.

The OBE approach, which involves the "backward design" model, is one of the most effective curriculum development strategies. This curriculum design allows teachers to plan for interesting activities, teaching, and assessment strategies that focused on the end-goals and desired learning outcomes. Learning outcomes are those that are expected of the students to attain as a result of their engagement in a particular set of teaching and learning experiences (Tam, 2014). Teachers plan their course content and learning activities based upon what their students need to know or do to meet the educational expectations of their respective courses. Having teachers determine what they would accept as evidence that students have attained the desired proficiencies before proceeding to the planning of teaching and learning experiences enable them to remain focused on the desired learning outcomes (Wiggins & McTighe, 1998).

In 2012, through its CHED Memorandum Order No. 46, the Commission on Higher Education (CHED) required the implementation of OBE has become the main direction of most Higher Education Institutions (HEIs) in the Philippines. With this new learning paradigm, a typology or classification of HEIs was developed to guide colleges and universities in the alignment of their Vision-Mission, and Goals (VMGs); their desired graduate attributes and impact on society; and their educational programs. CHED has institutionalized a new quality assurance mechanism to assess HEIs in the country, better known as Institutional Sustainability Assessment (ISA) (CMO No. 46, series 2012). In the ISA, each academic degree program focuses on what the graduate of that program can learn, do and be. The ISA defines the program outcomes explicitly for each course offered in the higher education level.

In the OBE approach, the following outcomes were defined: program, institutional, course and learning outcomes. These outcomes are set to ensure that all instructional activities are aligned with these defined outcomes. In the CHED's Handbook on Typology, Outcomes-Based Education and Institutional Sustainability Assessment, the Commission determined *Program Outcomes* (POs) for all program offerings. *POs* are set of competencies (i.e., related knowledge, skills, and attitudes) that all learners are expected to demonstrate. From these CHED-defined *POs*, HEIs derive their *Institutional Outcomes* by integrating their Mission, Vision, Goals, and Objectives in the *POs*. *Institutional outcomes* describe the attributes of graduates which HEIs hope to see from their students after graduation. From the *Institutional Outcomes*, specific outcomes for all courses are derived. *Course or Program Education Outcomes (PEOs)* are the knowledge, values, and skills which all learners are expected to demonstrate at the end of a course. Based on the *PEOs*, *Intended Learning Outcomes(ILOs)* are defined. *ILOs* are the results of learning from specific lessons. *ILOs* are considered as the fundamental building blocks which lead to *PEOs* which in turn lead to the *Program Outcomes*. In setting all these outcomes, students are expected to be transformed into graduates with full competence in their fields of study and who also possess the industry-desired and global citizen values.

In its continued quest for excellence in the spirit of continuous improvement and to meet the requirements of ISA, St. Paul University Philippines has embarked on the implementation of OBE in all its graduate programs since Academic Year 2013-2014. Before the implementation of the OBE, the

academic team underwent a series of workshops to set the competencies and learning outcomes specific to their respective programs and redesigned their curricular programs. Instructional plans reflected learning activities, resources, and assessments that were aligned with the SPUP's vision-mission, goals, objectives and Paulinian core values.

In its 4th year of implementation, the researcher would like to assess the implementation of the OBE in the Graduate School and to document the experiences of teachers and students along the course of implementation. The study conceived that OBE implementation could be best measured through the instructional design, learning activities which the students were exposed to, teaching and learning strategies; and the assessment techniques used in instruction.

The results may point out some ideas that can be utilized for the furtherance of OBE implementation in the University.

1.2 Research Questions

This study aimed to assess the implementation of the Outcomes-Based Education approach in the graduate school level of St. Paul University Philippines for the past four years (AY. 2013-2014 to A.Y. 2017-2018).

More specifically, the study aimed to:

1) Determine the extent of implementation of the outcomes-based approach as reflected in the following instructional elements: instructional design, learning activities experienced by students, and learning and assessment strategies utilized in instruction;

2) Test whether a significant variation exists on the extent of implementation of the outcomes-based approach in the master and doctoral programs concerning the aforementioned instructional elements;

3) Determine the factors and approaches that facilitated the implementation of the OBE, and

4) Determine the emerging issues and concerns in the implementation of the OBE approach.

2. Method

2.1 Research Design

The mixed approach was used in the study as it dealt with both quantitative and qualitative data. Quantitative data include participants' assessment on the extent of OBE implementation along the three instructional elements (i.e., instructional design, learning activities, learning and assessment strategies). The qualitative data were the documentation on the facilitating factors and emerging issues or concerns in the course of implementation.

2.2 Participants of the Study

The study covered two groups of participants particularly, the graduate school faculty and students. The study involved forty-eight faculty, 8 of which were purposively selected from each of the six programs. For the student-participants, 213 (126 Master, 87 Doctoral) students were selected through random sampling from the defined population frame: those who have been enrolled in the graduate school programs for four semesters within the past four years. Selection of student-participants was carefully

made to obtain a representative sample from each program offered in the Graduate School. Both groups assessed the extent of OBE implementation in terms of the Instructional Design as well as the OBE-based instructional and assessment strategies. From these participants as mentioned earlier, six students and six faculty members were selected from each program for the Focused Group Discussions (FGDs).

2.3 Data Collection and Analysis

A survey tool was used to obtain quantitative data. The survey instrument had three parts: Part 1 (25 items) was used by faculty to assess OBE implementation along Instructional Design which includes eight indicators. Part 2 which include 20 items, was intended for students in assessing OBE implementation in terms of the instructional and assessment activities. Part 3 was used in assessing OBE implementation based on the defined instructional strategies (10 items) and techniques (10 items).

The survey questionnaire was validated through Content Validity Index (CVI) involving five content experts. Items with Item-Level Content Validity Index (I-CVI) of at least 0.8 were retained. Items with I-CVI falling within the range of 0.60-0.79 were refined while those with indices of less than 0.60 were discarded.

Before the administration of the questionnaires and the conduct of FGDs, the researchers obtained permission from the top management and informed consent from the study participants.

FGDs were conducted to 6 groups of student-participants and six groups of faculty-participants to represent the 6 clusters of course offerings (Health Sciences, Education, Information Technology, Public Administration, Social Work, and Psychology). Each group consists of 8 selected informants. FGDs were conducted to note the facilitating factors, issues, and challenges on the implementation process.

Quantitative data were analyzed using the mean, Likert Scales and t-tests while qualitative data were subjected to thematic analysis.

3. Results

3.1 Extent of Implementation of the Outcomes-Based Approach

Students' assessment on the OBE implementation concerning the defined elements, namely, instructional design, learning activities experienced by students, learning and assessment strategies utilized in instruction are summarized in Tables 1, 2 and 3, respectively.

Table 1. The extent of OBE Implementation along Instructional Design as Assessed by Faculty

Indicators	***Master's Level***		***Doctoral Level***	
	Mean	DI	Mean	DI
Alignment of POs and PEOs with Vision-Mission	3.54	Very Great	3.48	Very Great
Alignment of POs and PEOs with Quality Policy	3.51	Very Great	3.52	Very Great

Alignment of ILOs with the PEOs	3.43	Very Great	3.45	Very Great
Alignment of PEOs with Paulinian Core Values	3.32	Very Great	3.40	Very Great
Alignment of ILOs with Professional Needs	3.56	Very Great	3.54	Very Great
Alignment of ILOs with Desired Learners' Attributes	3.43	Very Great	3.45	Very Great
Alignment of Assessment with ILOs	3.33	Very Great	3.36	Very Great
Appropriateness of Resources with POs	3.31	Very Great	3.33	Very Great
Over-all Mean	3.43	Very Great	3.44	Very Great

Legend: DI = descriptive interpretation.

As revealed, the extent of OBE implementation along Instructional Design as assessed by faculty in all graduate school courses both for master and doctoral levels is at a "very great" extent.

Table 2. The Extent of OBE Implementation Based on the Learning Activities Experienced by Students

Indicators	***Master's Level***		***Doctoral Level***	
	Mean	DI	Mean	DI
Exposure to learning activities that promote awareness of the school's vision-mission and program objectives	3.23	Great	3.27	Great
Exposure to learning activities that are aligned with the desired learning outcomes	3.52	Very Great	3.49	Very Great
Exposure to assessment techniques that lead to the attainment of the desired learning outcomes	3.43	Very Great	3.46	Very Great
Over-all Mean	3.39	Very Great	3.41	Very Great

Legend: DI = descriptive interpretation.

As shown, the students assessed the extent of implementation of OBE in the learning process as "very great" extent. This reflected explicitly in their ratings on the nature of activities and the assessment techniques that they were exposed to.

Table 3. The Extent of OBE Implementation Based Learning and Assessment Strategies Utilized in Instruction

Areas	***Indicators***	***Master's Level***		***Doctoral Level***	
		Mean	DI	Mean	DI
Teaching/	Case Studies or Case Analyses	3.33	Very Great	3.53	Very Great
Learning	Research Fora	3.23	Great	3.25	Great

Strategies	Video Analysis	3.26	Very Great	3.31	Very Great
	Reflections on Current Issues	3.36	Very Great	3.47	Very Great
	Online Fora	3.11	Great	3.13	Great
	Lectures	3.12	Great	3.09	Great
	Seminar-Workshops	3.22	Great	3.12	Great
	Concept Map Development	3.21	Great	3.28	Great
	Panel Discussions	3.15	Great	3.33	Very Great
	Debates	3.13	Great	3.17	Great
Assessment	Project-Based Outputs	3.25	Very Great	3.33	Very Great
Strategies	Group Presentations	3.32	Very Great	3.34	Very Great
	Individual Reports/Presentations	3.13	Great	3.53	Very Great
	Individual or Collaborative Researches	3.54	Very Great	3.58	Very Great
	Simulation of Industry Processes	3.35	Very Great	3.43	Very Great
	Community-Based Projects	3.23	Great	3.35	Very Great
	Reflective Journals	3.34	Very Great	3.31	Very Great
	Creative Presentations	3.35	Very High	3.40	Very High
	Reporting	3.12	High	3.13	High

Legend: DI = descriptive interpretation.

As revealed in Table 3, students have a "very great" extent of exposure to case studies or case analyses, video analysis, reflections on current issues and a "great" extent of exposure to research fora, online fora, lectures, seminar-workshops, concept map development, and debates. Results further show that students at the doctoral level were exposed more to panel discussions as compared to those in the masters' level. Furthermore, of the assessment techniques that support OBE, project-based outputs, group presentations, the conduct of researches, industry simulations, creative presentations, and journal reflections were experienced by students in both levels at a "very great" extent. However, reporting is only experienced at "great" extent. Doctoral students have more exposures to individual presentations than those in the Master's level.

3.2 T-Test Results on the Significant Difference on the Extent of Implementation of the OBE Approach in the Master's and the Doctoral Levels Along Instruction Design and Learning Activities

Table 4. T-Test Analysis on the Extent of Implementation of the OBE Approach in the Master's and Doctoral Levels

Areas	***Level***	***Mean***	***SD***	***t-value***	***P-Value***
Instructional	Master's	3.49	0.10	-0.282	0.778
Design	Doctoral	3.44	0.07		

Activities	Master's	3.39	0.15	-0.121	0.909
Experienced	Doctoral	3.41	0.12		

*Significant at 0.05 level.

No significant difference was observed on the extent of implementation of the OBE approach in both levels with regards to instructional design and learning activities.

Table 5. T-Test Analysis on the Extent of Implementation of the OBE Approach in the Master's and Doctoral Levels Along Instructional Strategies

Instructional Strategies	***Level***	***Mean***	***SD***	***t-value***	***P-Value***
Case Studies or Case Analyses	Master's	3.33	0.11	-11.739	0.00001*
	Doctoral	3.53	0.13		
Research Fora	Master's	3.23	0.04	-0.646	0.52
	Doctoral	3.25	0.06		
Video Analysis	Master's	3.26	0.17	-0.898	3.70
	Doctoral	3.31	0.23		
Reflections on Current Issues	Master's	3.36	0.19	-1.945	0.053
	Doctoral	3.47	0.17		
Online Fora	Master's	3.11	0.15	-0.49	0.623
	Doctoral	3.13	0.14		
Lectures	Master's	3.12	0.24	0.943	0.347
	Doctoral	3.09	0.22		
Seminar-Workshops	Master's	3.22	0.16	-43.22	0.000001*
	Doctoral	3.12	0.23		
Concept Maps	Master's	3.21	0.11	-5.089	0.00001*
	Doctoral	3.28	0.09		
Panel Discussions	Master's	3.15	0.32	-4.348	0.000021*
	Doctoral	3.33	0.28		
Debates	Master's	3.13	0.09	-1.647	0.101
	Doctoral	3.17	0.08		

*Significant at 0.05 level.

Table 5 shows that students who were enrolled in the master and doctoral programs do not significantly differ on their exposure to research fora, video analyses, reflective activities on current issues, online discussions, lectures, and debates. On the contrary, as revealed by the probability values which are less than 0.05, doctoral students have a greater extent of exposure to case studies or case analyses, concept

map development and panel discussions while students earning their master's degree have more exposures to seminar-workshops than those enrolled in the doctoral degree. These strategies allow students to get involved, and to be responsible for their learning.

Table 6. T-Test Analysis on the Extent of Implementation of the OBE Approach in the Master's and Doctoral Levels Along Assessment Strategies

Assessment Strategies	*Level*	*Mean*	*SD*	*t-value*	*P-Value*
Project-Based Outputs	Master's	3.25	0.39	-3.48	0.0006*
	Doctoral	3.33	0.45		
Group Presentations	Master's	3.32	0.27	-0.49	0.6246
	Doctoral	3.34	0.53		
Individual Reports/Presentations	Master's	3.13	0.34	-0.97	0.3332
	Doctoral	3.53	0.47		
Individual or Collaborative Researches	Master's	3.54	0.12	-5.76	0.00001*
	Doctoral	3.58	0.15		
Simulation of industry Processes	Master's	3.35	0.12	-1.35	0.1784
	Doctoral	3.43	0.17		
Community based-projects	Master's	3.23	0.27	-0.32	0.7493
	Doctoral	3.35	0.23		
Reflective Journals	Master's	3.34	0.32	-6.80	0.00001*
	Doctoral	3.31	0.27		
Creative Presentations	Master's	3.35	0.43	-2.07	0.0397
	Doctoral	3.40	0.32		
Reporting	Master's	3.12	0.56	-3.79	0.0001*
	Doctoral	3.13	0.45		

*Significant at 0.05 level.

The data in Table 6 reveal that the use of the assessment strategies that support the OBE approach such as the group presentations, individual reports/presentations, simulation of industrial processes, community-based projects and creative presentations for master's and doctoral levels do not differ significantly. On the contrary, students in the doctoral level were more exposed to the following assessment strategies than those in the master's degree: presentation of project-based outputs, individual or collaborative researches, reflective journals, and reporting.

3.3 Factors and Approaches that Facilitated the Implementation of the OBE

Based on the thematic analysis of the results of the two sets of FGDs that were conducted to program representatives which involved 6 groups of faculty and 6 groups of students, the following are the identified factors that hasten the OBE implementation: strong administrative support, well-informed faculty, committed faculty, nature of students, designed curriculum, and conducive learning environment.

3.4 Emerging Issues and Concerns in the Implementation of the OBE Approach

Teachers' concerns were more on a heavy workload, difficulty in implementing collaborative activities, difficulty in meeting varying students' needs, and difficulty on the use of technology.

Among the concerns of students in the implementation of OBE were their limited understanding and lack of appreciation of the OBE approach, and the difficulty in meeting the course requirements and in the conduct of collaborative activities.

4. Discussion

The very high rating for "Instructional Design" as shown in Table 1 implies that the instructional plans in all subject offerings met the requirements of OBE. The result means that the defined Program Outcomes (POs) set by CHED for all graduate programs in the University were integrated into the Program Educational Objectives (PEOs) or course outcomes. These outcomes are further reflected in the Intended Learning Outcomes (ILOs) which define the specific outcomes expected from students as a result of learning each lesson. The consistency of these outcomes (POs, PEOs, and ILOs) is an indicator of a clear target for the learners to achieve. Setting the student learning outcomes ensures that graduates acquire the essential knowledge and skills and in keeping with the University's mission and its strategic plan (Mohayidin et al., 2008). This finding supports the claim of Hilgart et al. (2012) that "Instructional Design (ID) models can be used prescriptively to describe a systematic set of activities and steps involved in the planning, implementation, and evaluation of instructional programs". The initial step to successful instruction is a well-defined set of learning outcomes since instructions are planned following these desired exit outcomes. When educators prepare for the learning activities in OBE, the outcomes they wish for students are the prior considerations (Olivier, 1998; Harden, 2002). Spady (1993) argues that planning for instruction should start with a clear picture of what is essential for students to do, then organizing the curriculum, instruction, and assessment to make sure that learning ultimately happens. Through the OBE approach, students are expected to row in the same direction—with course, program, institutional, and even national-level outcomes aligned in ways that create more intentional pathways to student learning and success.

The result in Table 2 reflects a "very great" extent of implementation of OBE concerning learning activities experienced by students, which means that students were exposed to activities and assessment tools that are supportive of the OBE approach. This finding supports Maureen's (2014) claim mentioned that the science of *instruction* and learner's cognitive architecture should be *aligned* with

instructional conditions to ensure the achievement of *desired* learning *outcomes.* Teachers must link intended student learning outcomes with the instructional processes and practices needed to foster those outcomes (Hutchings, 2016). Students' learning is mainly dependent on the strategies utilized by teachers to achieve relevant skills in line with the set expectations. Assessment procedures and techniques should be tailored for the desired outcomes to produce the desired quality graduates, teaching and learning instruction (University Putra Malaysia, 2004, as cited in Mohayidin et al., 2008).

Table 3 reflects that the students' extent of exposure to varied teaching strategies and assessment techniques that support the principles of OBE approach ranges from "great" to "very great" extent. This finding means that the students were provided with a wide variety of teaching strategies and assessment tools that allow them to be more engaged in learning and to be self-directed learners. The specific learning and assessment strategies that were utilized are in different modes (i.e., individual work, group work) which allow them to acquire learning skills, literacy skills, and life skills. Multiple instructional and assessment strategies provide opportunities for students, providing them adequate time and support to reach their potentials, are among the key factors to elevate the implementation of OBE (Yosof, Othman, Norwani, Ahmad, & Abdul Jalil, 2017). In OBE, various strategies and techniques have to be utilized for more students' engagement (Guzman, Edano, & Umayan, 2017). For Perkan Zeki and Sonyel (2014), strategies used in the OBE approach must recognize that students learn how to inquire, verify, draw perception and apply what has been learned (as cited in Guzman, Edano, & Umayan, 2017). Killen (1996) argued that student learning is facilitated through the use of a variety of teaching strategies.

Table 3 further shows that there is a very great extent of use of the different techniques in assessing learning outcomes. This result signifies that faculty members use various and relevant tools to measure learning outcomes. For Orsmond and Gildenhuys (2005), assessment should be broad enough to include attitudes, processes, and skills as well as knowledge and content. Malcolm (2000) argues that assessment is used to guide learning and OBE calls for the continuous evaluation and use of different assessment to ascertain whether outcomes have been achieved.

Table 4 shows that the extent of implementation of OBE along Instruction Design and learning Activities for both master's and doctoral groups are of the same level. This result means that the instructional design for all graduate programs in both levels was based on the POs and PEOs. Students' ILOs defines the content, teaching and learning activities, assessment techniques and resources for students.

With regards to instructional strategies, Table 5 reveals that master's students were more exposed to seminar-workshops while those doctoral students have more exposures to case studies or case analyses, concept map development, and panel discussions. Both groups have the same extent of exposure to research fora, video analyses, reflections on current issues, online fora, lectures, and debates. In table 5, the doctoral students have a greater extent of exposure to case studies or case analyses,

seminar-workshops, concept map development and panel discussion as these are the most appropriate strategies that allow them to address pressing issues and problems that are relevant in their respective fields. Norwani, Ahmad and Abdul Jalil (2017) argued that the effectiveness of OBE implementation depends mainly on the quality of teaching and learning which is defined by the teaching methodologies that are used. Specific to their study, case study and integrated case study, problem-based learning, and IT applications were among the effective strategies in OBE that were used.

The t-test results in Table 6 reveal that the extent of implementation on the use of the assessment strategies that support the OBE approach such as group presentations, individual reports/presentations, simulation of industrial processes, community-based projects and creative presentations for master's and doctoral levels do not differ significantly. On the contrary, students in the doctoral degree were more exposed to the following assessment strategies: presentation of project-based outputs, individual or collaborative researches, reflective journals, and reporting.

Based on the thematic analysis of the results of the FGDs that were conducted to 6 groups of faculty and six groups of students, the following are the identified factors that hasten the OBE implementation:

Strong Administrative Support. The support of administrators is considered as the prime factor that facilitated the implementation of the OBE. The commitment and active collaboration of the administrators from the top level to the program level contributed to the smooth flow of the OBE implementation. The full support of the administrators was facilitative especially in meeting the human resources as well as material requirements of OBE. The academic unit heads religiously did periodic feed-backing mechanisms and close monitoring scheme. Administrators' initiatives in forging collaboration with industry partners and field experts have made students' industry exposure and research collaborations possible. Borsoto et al. (2014) stressed the importance of the assistance of the administration in providing the needed resources to sustain the OBE implementation. Bratts (1991) underscored that "wise administrative guidance is the key to ensuring a quality product as they are the master planner, facilitator, and guide whose responsibilities include initiating and nurturing the process. Potenza and Manyoko stated that the success of the new curriculum depends on training and support that educators receive (as cited in Jansen & Christie, 1999).

Well-Informed Faculty. Faculty members are well-versed with the OBE instructional model, thus, making the planning and implementation of OBE easy. Teachers have the role of translating curriculum intentions into reality, and it is imperative that they understand the curriculum well for effective implementation (Chaudry, 2015; Olivier, 2002). Teachers have a significant role in designing the curriculum; thus, they must be involved in curriculum planning and development so they can implement and modify the curriculum for optimum students' learning (Wolfson, 1997, as cited in University of Zimbabwe, 1995). Olivier (2002) mentioned that teachers are the major role players towards successful implementation of OBE, as such their understanding is important (as cited in Ramoroka, 2007). Naicker (1999) argues that teachers' understanding of the curriculum forms the basis for implementation. Teachers are the mediators of learning, interpreters and designers of learning plans.

For educators to implement OBE effectively, they should have a good understanding of the OBE (premises, principles, outcomes of learning, teaching and assessment strategies) (Ramoroka, 2007).

Committed Faculty. The key movers to make OBE work in the instructional process are the faculty. The commitment of faculty and their willingness to accept their responsibility to provide quality instruction to students made OBE possible. OBE implementation takes place through the interaction of the learner and planned learning opportunities; the role and influence of the teacher in the process is indisputable (Chaudry, 2015). Liu in Guzman, Edano and Umayam (2017) argued that the significant challenges encountered during implementation include faculty buy-in and the time commitment required of faculty members to get involved in OBE-related practices. Teamwork, faculty involvement, and faculty ownership are vital factors for the success of OBE implementation (Guzman, Edano, & Umayam, 2017).

Students. The students are adult learners and have embraced them the responsibility to take charge of their learning. *Learners are critical elements in curriculum implementation as they hold the key to what transmitted from the curriculum* (Chaudry, 2015). OBE approach which is learner-centered and which calls for collaboration and teamwork suits the nature of learners in the graduate level.

Designed Curriculum. The well-crafted curricula of studies and course syllabi that reflect the OBE approach to instruction guided the teachers and students in the implementation process. These curricular documents provide a sense of direction for both students and teachers towards the attainment of the desired learning outcomes. These curricula may not be perfect to meet the professional needs of students, but at least its presence can serve as aids in the implementation process. Moreover, the students consider various instructional activities as very relevant and meaningful for these deal with learning contexts where they could apply the specific skills and competencies acquired in the learning process.

Conducive Learning Environment. The learning facilities fit into the learning activities which students undertake, allowing them to do collaborative work and simulate work situations where they can practically use learned theories and concepts. Some designated classroom areas are well-equipped with technological resources which aid students to attain optimum learning. For Chaudry (2015) particular circumstances in the school such as adequacy of human and material resources influence curriculum implementation. Based on the interviews with the students and teachers, the following are the noted issues and concerns that thwart the implementation of the OBE:

Among the teachers' concerns are:

(1) Students' heavy workload as defined by their functions in their respective work stations, thus, find difficulty in meeting the requirements,

(2) Teachers find difficulty to initiate collaboration with industries due to their distance from the learning centers,

(3) Some students cannot meet the desired outputs,

(4) Difficulty in dealing with students' varying needs and interests,

(5) Teachers raise their technology-driven concerns such as lack of needed technology in their work stations and students' limited exposure to technology, and

(6)Students are used to the traditional instructional set-up and assessment.

Students' concerns on OBE implementation include:

(1) Students have a limited understanding of the OBE approach,

(2) Locations of partner industries are too far, making industry collaboration and immersion difficult,

(3) Students find difficulty in dealing with partner industries, (3) Some students do not appreciate the OBE approach,

(4) Students cannot cope with the complexities of the course requirements,

(5) OBE is very expensive since various materials are needed to produce the desired outputs, and

(6) Students find difficulty in collaborating with fellow students.

5. Conclusion

The very great extent of implementation of the OBE as reflected in the instructional design, learning strategies and assessment techniques that are utilized in classrooms are indicators of the teachers' understanding and positive reception of the OBE paradigm. Teachers should be more conversant with OBE premises and principles to plan for learning activities that help learners achieve outcomes (Ramoroka, 2007; Olivier, 2002, in Ramoroka, 2007; Killen, 2000; Naicker, 1999). Laguador and Dotong (2014) stressed the necessity of comprehensive knowledge and understanding of outcomes-based education to realize its objectives when applied. The most considerable part of the OBE implementation is ascribed to faculty members; thus, more emphasis on the development of their knowledge and skills on how to go through the OBE implementation process is vital. The series of awareness sessions, workshops, and training on OBE adequately prepared the teachers for OBE implementation. The implication is that if educators are well-trained on the use of OBE, they will have a good understanding of the new curriculum. If educators have a good knowledge of OBE, it will be easier for them to implement in the classroom.

The very high rating of OBE implementation along the specified areas (instructional design, learning activities, teaching and assessment strategies) indicates that the defined OBE process is observed in all graduate programs. That is, the learning outcomes were clearly defined; the planned teaching strategies and learning activities were actualized ensuring the achievement of the desired results. In general, the OBE approach guides the educators in setting the learning outcomes, in selecting suitable strategies, and in developing and using a wide range of assessment tools to aid students to achieve the defined outcomes. The "Design Down" process in OBE is reflected by the consistency, systematically, coherently design down from significant culminating outcomes (Spady, 1994; Yosof, Othman, Norwani, Ahmad, & Abdul Jalil, 2017). In the case of SPUP graduate school, the consistent flow and integration of curriculum from the broader outcomes to the specific learning outcomes are observed at very great extent.

The successful implementation of OBE at SPUP Graduate School is a result of careful planning and collaborative efforts among the members of the academic team and middle administrators and full support of top management. The commitment of faculty and administrators in the full implementation coupled with the openness of the students to accept changes in the learning landscape facilitated the implementation. There are always emerging concerns related to the OBE implementation of a new approach in the delivery of instruction which can serve as challenges to bring about positive results.

6. Recommendations

Based on the results of the study, it is recommended that:

1) SPUP administrators and faculty must sustain their concerted effort in implementing the OBE approach to bring about the desired outcomes for its graduates.

2) To enhance students' motivation and appreciation of the OBE approach, teachers must establish the connection between the instructional design, the learning activities, instructional strategies, and assessment.

3) SPUP must intensify its instruction to promote awareness of the school's vision-mission and program objectives.

4) SPUP must strengthen the factors that facilitated that OBE implementation and address emerging concerns that thwart its implementation.

5) Research to evaluate the effectiveness of the OBE approach and other relevant investigations which can provide strong empirical data on OBE implementation and utilization.

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