COMPLIANCE OF HIGHER EDUCATION INSTITUTIONS TO OUTCOME-BASED EDUCATION FOR THE 21st CENTURY LEARNERS

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ABSTRACT

Outcome-Based Education (OBE) becomes a trend in the Philippine tertiary education from the time that it was implemented by the Commission on Higher Education (CHED) on the year 2012. It was a product of innovation for quality education which aims to cater to the needs of the 21st century learners. The study is a combination of a quantitative and qualitative approach wherein the extent of compliance of selected Philippine Higher Education Institutions(HEIs) to OBE Framework was assessed using the Analysis of Variance (ANOVA) and through interview, the challenges encountered by the participants on its implementation were identified.The findings revealed that HEIs, whether non-accredited or accredited are both compliant with the implementation of OBE and conform to the framework designed by CHED. However, it discloses the challenges that the respondents' experience in terms of OBE thus, it identifies the essential needs of the educators in the effective and efficient methods in applying OBE. The different aspects of OBE Framework explored and described in the study yielded the Application of OBE framework for teachers, and the essential characteristics of 21st century educators. The concepts produced may serve as a guide for educators in becoming more effective and efficient educators with a 21st century skills.

Keywords: Higher Education Institution, Outcome-Based Education, framework, 21ST century education, Learning experience, framework

INTRODUCTION

Providing quality education is the core of all missions of educational institutions and, as a way of ensuring access to it, they shall innovate its curriculum based on the needs of current trends in education, which is a process of curriculum development. The changes in the teaching methodologies and approach are part of the curriculum development and innovation that is necessary in the field of education. In the Philippines, it is one way of ensuring that quality education is being provided to the learners. One of the goals of Philippine education is to produce 21st century learners with acquired 21st century skills. Therefore, the changes on curriculum is necessary to ensure that the goal is being achieved with the use of appropriate channel or methodologies. This rapid spread of educational reforms was the impact of the demands of accountability and accreditation on education (McDaniel et al., 2000).

Article XIV, sec.1 of the 1987 Philippines Constitution provides that "the State shall protect and promote the right of all citizens to quality education at all levels." In compliance with what is written on the constitution, Republic Act 7722 was enacted. It was known as the Higher Education Act of 1994, an act creating the Commission on Higher Education (CHED) which shall be independent and separate from the Department of Education. It covers both public and private Higher Educational

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FERNANDO, J.S., *Compliance of Higher Education Institutions to Outcome – Based Education for the 21st Century, pp.226 - 236*

226

Institutions as well as degree-granting programs in all post-secondary educational institutions. Its main function is to review, formulate, and recommend development plans, policies, and programs on tertiary education. The commission supports the development of HEIs into mature institutions by engaging them in the process of promoting a culture of quality. CHED Memorandum Order (CMO) No. 46, series 2012, entitled "Policy-Standard to Enhance Quality Assurance (QA) in Philippine Higher Education through an Outcomes-Based and Typology-Based QA" discussed the role of the state in providing quality education to its citizens (CHED, 2014). As defined by CHED, quality in higher education is "excellence" or "fitness for purpose", but also as "transformation" of stakeholders, especially for mature institutions (CMO 46, 2012). The task of HEIs is daunting as they have to constantly check itself against the standards in place and keep itself abreast of the latest demands of the labor market (Conchada and Tiongco, 2015).

Outcome-based education (OBE) is an educational trend that transformed the traditional approach in teaching to transformational. OBE focuses on the performance and demonstration of learners' mastery within a period of time. It is an instructional process that moves education from focusing on what academics believe graduates need to know (teacher-focused) to what students need to know and able to do in varying and complex situations (Biggs, 2007). William Spady, the father of OBE, states that it clearly means focusing and evaluating everything in an educational system around what is essential for all students to possess in terms of their learnings and skills to be able to do successfully at the end of their learning experience. The effectivity of the learning experience is being measured by the output of the students. The approach is a student-centered which makes the learners active and responsible, and on the other hand, it modifies the role of a teacher from being a "giver" and "presenter" of knowledge to a facilitator of the learning process (Spady, 1994, 2006) which is the total opposite of banking method in education.

The aim of this OBE is for students to become successful learners because of the belief that students learn more and better once the learning

is being experienced or what others call "learning by doing". There are goals set by the educators that the students should achieve at the end of the learning process and that is what we call the outcome of the students. This focus on outcomes creates a clear expectation of what needs to be accomplished in the learning process at the end of the course (Tam, 2014). In terms of its use in the teaching-learning process, the concept of OBE is a democratic process due to its nature that it can be flexible depending on the current needs of the learning experience. It does not follow a single idea or a set of procedures (Lawson and Williams, 2007) which leads confusion to a lot of educators on how it should be done in a classroom. However, change is already given in terms of education wherein adaptability is an essential quality for education stakeholders to possess.

Higher Education Institutions (HEIs) implemented Outcome-Based Education after the release of Executive Order No. 83, s. 2012 on the Institutionalization of the Philippine Qualifications Framework (PQF). The objective is to adopt national standards and levels for outcomes of education, to support the development and maintenance of pathways and equivalences which, provide access to qualifications and assist people to move easily and readily between the different education and training sectors and between these sectors and the labor market, and to align the PQF with international qualifications framework to support the national and international mobility of workers through increased recognition of the value and comparability of Philippine qualifications. The implementation has been pioneered by top universities in the Philippines. The commission mandated universities and colleges to implement OBE in their institution and to better guide HEIs on its implementation, the commission released a Handbook of Typology, Outcome-Based Education in compliance to CHED Memorandum Order (CMO) No. 46, series 2012, entitled "Policy-Standard to Enhance Quality Assurance (QA) in Philippine Higher Education through an Outcomes-Based and Typology-Based QA" which discuss the role of the state in providing quality education to its citizens. As stated on the

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FERNANDO, J.S., *Compliance of Higher Education Institutions to Outcome – Based Education for the 21st Century,*
pp.226 - 236

227

handbook on typology, outcomes-based education, and institutional sustainability assessment, quality is premised on the: alignment and consistency of the learning environment with the HEI's VMG; demonstration of exceptional learning and service outcomes; and development of a culture of quality. The overall quality is reflected in the vertical typology of the HEI as: autonomous HEI (by evaluation), deregulated by HEI (by evaluation), or regulated HEI.

OBJECTIVES OF THE STUDY

From the phenomenal objective of outcome-based education, this research explored on the management of outcome-based education with the use of qualitative and quantitative as methods of research.

1. Assess the extent of compliance of selected Higher Education Institutions to OBE Framework and to determine the significant difference on the extent of compliance of selected Higher Educational Institutions to OBE in terms of:
    1.1 Mission, Vision, and Goals
    1.2 Institutional, Program and Course Outcomes
    1.3 Course Design
    1.4 Learning Environment
    1.5 Assessment and Evaluation
    1.6 Teaching-learning Systems

2. Identify challenges encountered by the respondents in the implementation of OBE in response to the 21st century education.

3. Produce OBE framework for teachers.

METHODOLOGY

A purposive sampling was conducted among 100 college instructors/professors of selected Higher Education Institutions. These instructors were recruited to answer the research instrument. Criteria of selecting the respondents include the following: (a) full-time college instructor/professor of HEI within Metro Manila; (b) knowledgeable on the implementation of outcomes-based education (OBE); and (c) availability and willingness of the subjects to answer the survey. There were 20 chosen colleges and universities that the respondents represent, ten (10) for accredited and ten (10) for non-accredited Higher Educational Institution. Each institution is represented by their five (5) faculty members. There is a total of 100 respondents, 50 respondents from the accredited HEI and another 50 respondents for the non-accredited Higher Education Institutions.

For the qualitative approach, a total of 20 respondents was interviewed. The 10 respondents represented the accredited HEI while the other half represented the non-accredited HEI. There were twenty (20) college instructors and professors involved in this study.

Descriptive method of research was used as a research design wherein the quantitative data were gathered using a survey questionnaire to assess the level of compliance of HEIs to OBE and the extent of its implementation. A Likert scale was used to assess the compliance and implementation of CHED accredited and non-accredited HEIs. There were five respondents who represented each Higher Education Institution (HEI). A total of fifty (50) respondents from ten (10) different CHED Non-accredited institutions within National Capital Region were gathered.

Weighted Mean was applied to consolidate the answers of respondents to each question. Composite Mean was used to get the average mean to come up with the general result of instructors' response for each part of the questionnaire. It was used to determine the compliance of HEIs to OBE and the status of its implementation. Z-test was used to determine if there is a significant difference on the extent of compliance of selected HEIs.

RESULTS AND DISCUSSION

1. Assessment of Compliance

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FERNANDO, J.S., *Compliance of Higher Education Institutions to Outcome – Based Education for the 21st Century, pp.226 - 236*

228

Table 1
Analysis of Variance on the HEIs' Mission, Vision, and Goals

A. HEIs Mission, Vision, and Goals	Mean	Standard Deviation	z-value	Tabular value (2-tailed)	Decision	Conclusion
Accredited	1.24	0.1447	-13.43			Significantly Different
Non-Accredited	1.63	0.1459		±1.96	Reject Ho	

Table 1 illustrates that CHED non-accredited HEIs' mean score is 1.63, while CHED accredited HEI is 1.24, with the mean difference of 0.39. Since the test statistic z_c = -13.43 is less than critical/tabular value -1.96 at 0.05 significance level, the null hypothesis is rejected. It shows that there is a statistically significant difference between accredited and non-accredited in terms of HEIs mission, vision, and goals.

This confirms that the groups of respondents significantly differ in their agreement in terms of their respective HEI's mission, vision, and goal. The data implies that accredited HEIs have higher level of compliance, implementation, and dedication in terms of their mission, vision, and goal compared to the non-accredited HEIs.

Table 2
Analysis of Variance on Institutional, Program and Course Outcomes

B. Institutional Program and Course Outcomes	Mean	Standard Deviation	z-value	Tabular value (2-tailed)	Decision	Conclusion
Accredited	1.36	0.1682	-13.33			Significantly Different
Non-Accredited	1.75	0.1204		±1.96	Reject Ho	

Table 2 presents that CHED non-accredited HEIs' mean score is 1.75, while CHED accredited HEI is 1.36 with mean difference of 0.39. Since the test statistic z_c = -13.33 is less than critical/tabular value -1.96 at 0.05 significance level, the null hypothesis is rejected. It shows that there is a statistically significant difference between accredited and non-accredited in terms of HEIs institutional, program and course outcome.

This implies that the groups of respondents significantly differ in their agreement which implies

that accredited HEIs have higher level of compliance and implementation in terms of their institutional program and course outcomes compared to the non-accredited HEIs. The result of the data gathered for this category shows that accredited HEIs have organized and established institutional program and course outcomes that ensures the manifestation of intended learning outcomes among the students.

P – ISSN 2651 - 7701 | E – ISSN 2651 – 771X | www.ioer-imrj.com
FERNANDO, J.S., *Compliance of Higher Education Institutions to Outcome – Based Education for the 21st Century, pp.226 - 236*

229

Table 3

Analysis of Variance on Course Design

C. Course Design	Mean	Standard Deviation	z-value	Tabular value (2-tailed)	Decision	Conclusion
Accredited	1.56	0.3811	-3.20			Significantly Different
Non-Accredited	1.97	0.8204		±1.96	Reject Ho	

Table 3 flashes that CHED non-accredited HEIs' mean score is 1.97, while CHED accredited HEI is 1.56 with mean difference of 0.41. Since the test statistic z_c = -3.20 is less than critical/tabular value -1.96 at 0.05 significance level, the null hypothesis is rejected. It shows that there is statistically significant difference between accredited and non-accredited in terms of HEIs course design.

Correlated to this, the groups of respondents significantly differ in their agreement, which implies that accredited HEIs have higher level of compliance, implementation, and application in terms of their course design compared to the non-accredited HEIs. The result of the data gathered for this category shows that instructors/professors from accredited HEIs are more competent and have higher level of mastery on the matters pertaining to outcomes-based education compared to instructors/professors from CHED non-accredited HEIs.

Table 4

Analysis of Variance on Learning Environment

D. Learning Environment	Mean	Standard Deviation	z-value	Tabular value (2-tailed)	Decision	Conclusion
Accredited	1.68	0.5346	-3.98			Significantly Different
Non-Accredited	2.01	0.2419		±1.96	Reject Ho	

Table 4 displays that CHED non-accredited HEIs' mean score is 2.01 while CHED accredited HEI is 1.68 with mean difference of 0.33. Since the test statistic z_c = -3.98 is less than critical/tabular value -1.96 at 0.05 significance level, the null hypothesis is rejected. It shows that there is a statistically significant difference between accredited and non-accredited in terms of learning environment.

This shows that the groups of respondents significantly differ in their perception of the learning environment that their HEIs provide their students. The result of the data gathered for this category shows that accredited HEIs provide a better learning environment that the non-accredited. On the items listed, learning environment was measured through student's access to laboratory, classroom and facilities, equipment and resources, and adequate selection of books and periodicals from the library.

P – ISSN 2651 - 7701 | E – ISSN 2651 – 771X | www.ioer-imrj.com
FERNANDO, J.S., *Compliance of Higher Education Institutions to Outcome – Based Education for the 21st Century,*
pp.226 - 236

230

Table 5

Analysis of Variance on Assessment and Evaluation

E. Assessment and Evaluation	Mean	Standard Deviation	z-value	Tabular value (2-tailed)	Decision	Conclusion
Accredited	1.40	0.2048	-3.72			Significantly Different
Non-Accredited	1.52	0.0933		±1.96	Reject Ho	

Table 5 indicates that CHED non-accredited HEIs' mean score is 1.52 while CHED accredited HEI is 1.40 with mean difference of 1.11. Since the test statistic z_c = -3.72 is less than critical/tabular value -1.96 at 0.05 significance level, the null hypothesis is rejected. It shows that there is a statistically significant difference between accredited and non-accredited in terms of instructors'/professors' assessment and evaluation.

This shows that the groups of respondents significantly differ in their assessment and evaluation in compliance with the requirement of OBE. The result of the data gathered for this category shows that instructors/professors from accredited HEIs were already used to the way how learners should be graded under the outcomes-based education.

Table 6

Analysis of Variance on Teaching-Learning Systems

F. Teaching-Learning Systems	Mean	Standard Deviation	z-value	Tabular value (2-tailed)	Decision	Conclusion
Accredited	1.55	0.6201	-3.14			Significantly Different
Non-Accredited	1.98	0.74		±1.96	Reject Ho	

Table 6 represents that CHED non-accredited HEIs' mean score is 1.98 while CHED accredited HEI is 1.55 with mean difference of 0.41. Since the test statistic z_c = -3.14 is less than critical/tabular value -1.96 at 0.05 significance level, the null hypothesis is rejected. It shows that there is a statistically significant difference between accredited and non-accredited in terms of HEIs teaching-learning systems.

This denotes that the groups of respondents significantly differ in their teaching-learning systems which implies that accredited HEIs instructors/professors are more innovative and confident to OBE approach than the instructors/professors from non-accredited HEIs.

P – ISSN 2651 - 7701 | E – ISSN 2651 – 771X | www.ioer-imrj.com

FERNANDO, J.S., *Compliance of Higher Education Institutions to Outcome – Based Education for the 21st Century, pp.226 - 236*

231

Table 7

Analysis of Variance on the Compliance and Implementation of Outcome-Based Education

Compliance and Implementation of Outcomes-Based Education	Mean	Standard Deviation	z-value	Tabular value (2-tailed)	Decision	Conclusion
Accredited	1.47	0.1463	-10-05			Significantly Different
Non-Accredited	1.81	0.1891		±1.96	Reject Ho	

Table 7 reveals that CHED non-accredited HEIs' mean score is 1.81 while CHED accredited HEI is 1.47 with mean difference of 0.34. Since the test statistic z_c = -10.05 is less than critical/tabular value -1.96 at 0.05 significance level, the null hypothesis is rejected. It shows that there is statistically significant difference between accredited and non-accredited on their compliance and implementation of outcomes-based education.

The overall data gathered implies that accredited HEIs have higher level of compliance, implementation, and application of OBE compared to the non-accredited HEIs.

2. Challenges Encountered on the Implementation of OBE

Educators, whether from accredited or non-accredited HEIs are experiencing challenges on the implementation of OBE. The common conflict encountered by the respondents has something to do with the application of OBE in a traditional setting or learning environment. Not all educators have mastered the concept of OBE. They are in the process of equipping themselves with knowledge sufficient for the effective and efficient application of OBE especially in the classroom. Initiative is visible on the part of the respondents for they do self-study and research about OBE.

Assessment plays an important role in determining whether OBE is effectively applied and it requires more attention. Through assessment, educator will be able to see whether the intended learning outcomes set have been achieved. This learning outcomes includes the institutional, program and course outcomes. Educators use rubrics for assessment and they find it easier to assess through the use of it.

There is a lot of curriculum content that needs to give focus in the implementation of OBE. The problem is that learning environment does not support the learning objectives and intended outcomes. There are new teaching and strategies applied in the classroom for the application of OBE and learning facilities often causes the problem of execution of learning outcomes. Technology that education uses must also be updated and in line with the current trends that we have globally. Even established HEIs have no guarantee that updated technology is available. However, based on the learning facilities and technologies, CHED accredited HEIs provide better than the non-accredited HEIs.

Educators find OBE difficult in terms of motivating and teaching approach. It is difficult to motivate learners nowadays and they have lesser attention span now. Learners are inclined to procrastinate because they know that they may still achieve or produce what is required from them. Additionally, there is a need for students to master critical and creative thinking skills for these are the skills essential for the 21st century learners.

On the other hand, assessment overload is another problem encountered by the educators and the learners. Educators have a lot of activities and outputs to check that they consider as time-consuming while the learners were bombarded with so much task that they have to accomplish.

The major problem encountered by the educators is implementing OBE in a large-sized class. OBE is not applicable for a large-sized class for it is impossible for the educator to facilitate the

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FERNANDO, J.S., *Compliance of Higher Education Institutions to Outcome – Based Education for the 21st Century, pp.226 - 236*

232

learning effectively. There is a possibility that some students will not be able to achieve the desired learning outcome due to lack of supervision on the part of the educator. In excess of 30 learners in a class are considered as large-sized. In effect to this, educators have to exert more time for work because of the demanding nature of OBE. It is time consuming for there are lots of preparations and matters that the educators must consider. Revision of curriculum to align with the learning outcomes adds to the stress that it effects to the educators. Educators know that having time management is the solution to prevent stress and being efficient at work. However, they cannot apply it now for they have to bring their works at home for it to finish. Hours spent in school is no longer sufficient for an educator to finish tasks. It becomes hard for the educators to balance time between personal and work.

Lastly, the behavior of the learners contributes to the challenges encountered by the educators in the implementation of OBE. In spite of the accessibility of facilities and technology, learners of this generation lack the sense of responsibility for they do not strive hard to meet the deadline. Since education is OBE, educators have to tolerate this scenario by accepting the outputs presented even beyond the deadline. Due to this, it is becoming more difficult on the part of the educator to motivate and ensure students to do the task provided for them on time.

The theme emerged on this study are the essential characteristics of 21st century educators that is needed for the effective implementation of outcome-based educations.
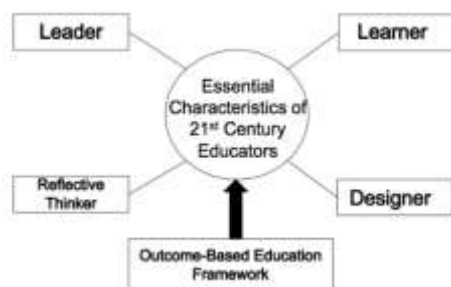

Figure 1. Essential Characteristics of 21st Century Educators

Educators are learners. Learning doesn't stop for educator for they know the importance of lifelong learning and its importance on their teaching profession. They already possess the passion in learning.

Educators are reflective thinker for they apply the process of self-evaluation for their professional development. Being a reflective thinker helps educators catch up with the demanding nature of their chosen profession.

Educators are also designers. They are the learning designer of their courses. They provide good learning structure that adjusts to the needs of the learners without sacrificing the quality of the content required.

Lastly, educators must be a leader for they provide direction, instructions, guidance and motivation to their student.

3. OBE Framework for Educators: How it should be done?

Educators are the main implementers of curriculum. As an implementer, they should possess the quality that they require students to have. Educators construct the course designs in line with the mission and vision which produces outcomes. The researcher comes up with a framework for teachers to guide them on the proper construction of course design and its proper application. The course design should be in line with the mission and vision to be able to produce the desired outcome required by the institution and program. There is a need on the course design to include classroom management, competencies, values formation, and collaborative learning.

Classroom management is the major challenge that educator experiences. It involves motivating students to comply with the requirements and perform tasks given to them. Competencies are essential for this is the formation of the learning process. Integration of values formation should be established together with the formation of competencies. Producing intellectual competent students is useless without developing their values towards life and in dealing with other people.

The course design should also enhance the 21st century skills that the learners possess and promote collaborative learning among them.
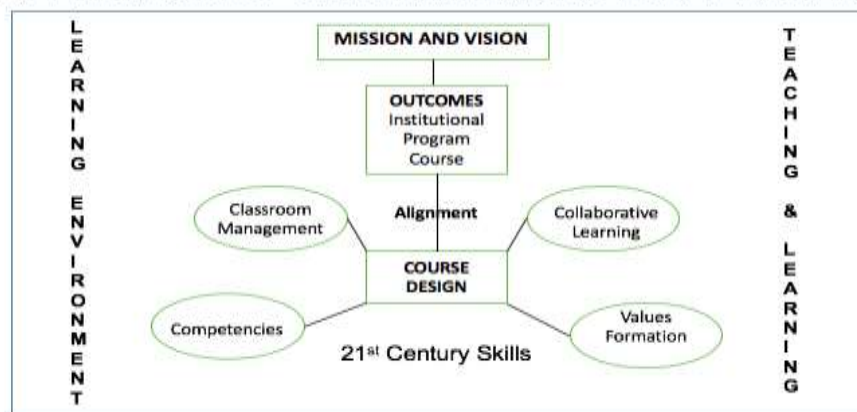

Figure 2. Application of Outcome-Based Education Framework

This study came up with a modified OBE framework based on the Outcome-Based Framework released by CHED for Higher Education. The modified framework is appropriate for responding to the needs of HEIs on the implementation of OBE.

The institutional goals of HEIs are determined through its mission and vision. It determines of the kind of graduates it produces and the impact it has on society. Mission and vision serve as the foundation for outcomes that form the classification of ideal graduates that it desires to produce.

The outcomes are the end, while the educational structures and curricula are the means in attaining these outcomes (CHED, 2012). In achieving the outcomes, the use of appropriate assessment is essential. There must be an alignment between the outcomes and assessment because it determines the validity of the effectiveness of OBE in education. Outcomes and assessment should be in line with what the institution, program, and course require.

Other factors that need to be considered in the OBE framework are the following: learning environment, course design, and continuous improvement. Learning environment and continuous improvement on all aspects of curriculum must be considered in a course design. The educator is the one who creates the course design in line with the mission and vision of the institution. Course design must be flexible for learners and students to develop better competencies and updated learnings. Educators in charge of the course design must be innovative to ensure continuous improvement for the quality of each learnings.

Another factor that needs to be considered in a course design is the learning environment. HEIs should provide a learning environment that promotes quality learning. It includes the update of facilities and having sufficient technology resources that will provide for the needs of the learners. Part of this is the teacher to students ratio. There should be a limit on the quantity of students in the class. If the number of students is beyond 30 it can be considered as large-sized class and which causes problem on the proper implementation of OBE.

HEIs compliance to accrediting organizations to be able to get accreditation and certification ensures that they are committed in providing quality education. This commitment includes their dedication to the improvement of their respective institutions.

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FERNANDO, J.S., *Compliance of Higher Education Institutions to Outcome – Based Education for the 21st Century, pp.226 - 236*

234

CONCLUSIONS

CHED non-accredited and accredited HEIs are compliant with the implementation of OBE. However, accredited HEIs have higher level of compliance, implementation, and application of OBE compared to the non-accredited HEIs. They both have a written mission statement that reflects a commitment that enable learners to be successful. They have effective implementation of their institution's program and course outcome. They utilize exit outcomes that students must demonstrate.

Statistical result implies that CHED accredited HEIs have more organized teaching-learning systems. Instructors are more used in serving as facilitators of learning in an OBE class. They were able to incorporate variety of teaching styles inside the classroom. They have created variety of assessments suited for the attainment of course outcomes.

Educational institutions have to review the challenges that the educators are experiencing and solve it. Through this, the main objectives of OBE may be achieved. The themes that emerged on this study are the essential characteristics that the 21st century educators should possess to become effective in the application of outcome-based education.

Gone are the days when educators deliver their prepared lectures in the classroom. This teaching method is no longer appropriate for the 21st century learners. Educators transmit knowledge to the learners. To be able to do it effectively, educators must upgrade themselves into 21st century educators and possess the qualities that it requires.

The 21st century educators must have a diversified set of skills and possess a broad horizon to cope up with tremendous era of science and technology (Ansari and Malik, 2013). Educators nowadays must be adaptive to change. Today's education requires educators to be innovative.

There shall be an immediate and strong actions on the part of HEIs leadership to fully implement OBE, as mandated, to support college instructors/professors to be responsive to the needs of 21st century learners. HEIs shall have a strict monitoring whether it is really being implemented or not. Without proper trainings and orientation, instructors may find that OBE approach in teaching is more difficult than the traditional style since the instructors shall serve as facilitators and shall come up with learning activities that could help students achieve the desired course outcomes.

RECOMMENDATIONS

With respect to the conclusions drawn, the succeeding recommendations are presented:

1. There shall be a development program designed for HEI educators in terms of teaching approach, strategies, and methodologies suited for OBE. Through this, the HEI will have an organized teaching-learning systems.
2. Educators shall commit themselves to lifelong learning to be able to meet the criteria needed for the 21st century skills in education.
3. School administrators shall provide extensive trainings for educators which aims to develop and improve their competence in classroom instructions.
4. Educators are also leaders. Therefore, their leadership skills shall also be developed in order to contribute to an effective decision-making in their respective organizations.
5. School heads shall have a proper measurement which ensures that the educators and learners were able to produce their desired learning outcomes.

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FERNANDO, J.S., *Compliance of Higher Education Institutions to Outcome – Based Education for the 21st Century,*
pp.226 - 236

235

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236