



Implementing Outcome-Based Education in Higher Education Programs: A Multiple Case Study in Vietnam and Laos

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ABSTRACT

Outcome-based education (OBE) has been an effective framework for teaching, learning and assessment of many higher education institutions worldwide for the past few decades. This study aims to investigate the OBE implementation in four universities across Vietnam and Laos. A multiple case study with personal reflection and document analysis was employed to identify the achievements and obstacles. The research results show that the OBE implementation changed lesson plans and classroom activities, and enhanced student engagement within the teaching and learning processes. However, teachers and students encountered challenges when they implemented OBE in their lessons. The paper concludes that despite the difficulties in implementation, the student-centered approach of OBE exerted a positive influence on student learning in the investigated institutions.

1. INTRODUCTION

In recent years, one of the most fiercely debated issues in the educational sector has been the shift to Outcome-Based Education (OBE) for managing teaching and learning at the tertiary level. Harden (2002) defines OBE as an instructional technique in which curricular choices are informed by the currently used learning objectives learners must meet at the end of each course and, eventually, when they graduate. In other words, OBE is a comprehensive approach that necessitates a constructive alignment between curriculum and pedagogy in order to plan and implement an educational programme that is centered around and defined by the successful learning demonstrations that each student is expected to provide and achieve (Biggs, 2011). Similarly, Tucker (2004) emphasizes this even further when he defines OBE as a process that necessitates overhauling curriculum, evaluation, and reporting practical procedures in education. The modifications introduced by OBE give students' demonstration of their learning outcomes more weight than course credit.

In the same token, other researchers (e.g. Baguio, 2019; Harden, 2002; Tam, 2014) who have examined the implementation of OBE at higher education level view OBE as one of the effective strategies that allows students to actively participate in classroom activities and that closely connects its theoretical underpinnings with modern strategies such as active learning, constructivism, student-centered learning, and discovery learning. These strategies also guarantee that educational institutions can easily achieve their predetermined purposes and objectives with all instructing and studying activities clearly stated in the curriculum (Davis, 2003).

In response to the necessity for the appropriate implementation of OBE in particular and the standardization of education systems and procedures in general, many higher education institutions in Vietnam and Laos have shifted

attention and efforts toward implementing OBE system at institutional level (Pham & Nguyen, 2023; Phuong et al., 2024; VNU-CEA, 2023). However, there are some concerns that the prevalence of inadequate education systems in Vietnam and Laos might leave graduates unprepared for the challenges of 21st century careers and life. More crucially, OBE implementation is still in its early phases in both nations, and much more work is required before this educational approach can be successfully adapted to the university level (Nguyen & Pham, 2019; Saiyachit, 2022).

Consequently, this paper intends to shed light on some critical aspects of the implementation of OBE in higher education programs in Vietnam and Laos with the hope of elucidating important concepts that would identify the achievements and changes in lesson plans, classroom activities, student engagement and challenges of OBE implementation at four universities. The research questions in this study are:

1. How is OBE implemented in higher education programs in Vietnam and Laos?
2. What are the achievements and challenges of the OBE implementation in Vietnam and Laos' higher education programs?

2. LITERATURE REVIEW

2.1. *Concepts and principles of OBE*

The OBE approach has been implemented in many educational systems across the world for several decades. According to Spady (1994: p.1), who is regarded as one of the main proponents of this model, OBE means “clearly focusing and organizing 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”. In OBE, the process is defined by the perpetrator; on the other hand, the curriculum's definition and organization, course content selection, instructional strategies, and assessment procedures should be guided by students' pragmatic learning or skill set development (Harden, 2002). OBE, to put it briefly, is a technique for developing, implementing, and evaluating an all-encompassing education system that necessitates administrators, teachers, and students to concentrate their energies on what the learning outcomes demand (Damit et al., 2021).

Additionally, according to Spady (1994), the two main components of the OBE system are: (1) developing a clear set of learning outcomes that can serve as the focal point for all system components; and (2) creating the conditions and circumstances inside the system that empower and inspire each student to meet those crucial objectives. Moreover, according to Damit et al. (2021) and Mangali et al. (2019), the OBE model has the following main principles:

- A clear emphasis requires teachers to enhance their expertise and make the best decisions when determining teaching and learning tactics to help learners accomplish expected learning outcomes.
- Increasing possibilities entails exposing all learners to various, acceptable teaching and learning techniques in order to give them the best chance to succeed.
- Learners who have high expectations for their performance gain confidence and become more motivated to learn.
- Backward design entails careful preparation beginning with defining learning outcomes after graduation and progressing to learning goals that learners must attain.

2.2. *Implementation of OBE*

As mentioned above, OBE is an educational paradigm that puts less emphasis on teaching and more on learning by outlining the knowledge, abilities, and attitudes that students should acquire and be able to demonstrate at the end of a course or program. To put it simpler, OBE offers a structure for emphasizing and formulating the curriculum around prearranged and exactly defined student learning outcomes. As for the implementation of OBE in practice, the first step in an outcome-based strategy is to establish clear, relevant learning objectives for any program, course, or learning resource. Learning outcomes are declaratives of what students should be able to do at the end of a certain program or a course. These planned learning outcomes must be the focus of all teaching, learning, and evaluation activities. This is referred to as the constructive alignment principle (Biggs, 2014; Kennedy & Birch, 2020; Mangali et al., 2019). It is required that when writing learning outcomes for both programmes and courses, action verbs and concise, functional language are essential. The action verb must suggest an outcome that the student can demonstrate.

It also suggests that developing learning outcomes should follow Bloom's taxonomy which refers to six levels, ranging from simple to advanced.

Furthermore, the OBE implementation needs to be conducted at the program and course level. At the program level, the processes consist of four steps, including: (1) defining the mission and vision of the institution; (2) developing the program educational objective (PEO); (3) defining the program learning outcome (PLO) and performance indicator (PI); and (4) relating the vision and mission, PEO and PLO. At the course level, the OBE procedure requires a number of crucial tasks, including reorganizing each course outline or curriculum, defining the course learning outcomes (CLOs) and mapping them with PLOs, developing the course content, defining teaching and learning strategies, connecting the necessary evaluation and assessment tools, and creating thorough reporting procedures in the field of education (Syeed et al., 2022).

2.3. Advantages and disadvantages when implementing OBE

The associated literature points out many advantages of implementing OBE in higher education. At the institutional level, OBE acts as a guide to raise the caliber and efficacy of the programs and modules while also enabling universities to better the educational experience for students. A proficient OBE system enables educational institutions to organize, document, and oversee courses and subjects (Djoundourian, 2017). From teachers' perspective, through implementing OBE, they have a better awareness of the requirements for leading a meaningful course or module by taking into account many aspects such as student interactions, personality changes, and pertinent teaching styles (Kennedy & Birch, 2020). As for learners, OBE implementation assists students in meeting learning objectives and guarantees that student achievement is evaluated impartially. OBE also gives students the chance to perform their skills through active learning, while integrating the knowledge and abilities they have learned in real-world contexts (Sun & Lee, 2020).

However, implementing OBE was argued to have several difficulties. First of all, some teachers, even the seniors, have not been trained on OBE appropriately. Therefore, they do not understand OBE systematically. Consequently, some teachers may reject changes in OBE implementation in their courses (Damit et al., 2021). Secondly, the lack of support from institutional leaders and middle-level managers for monitoring the implementation led to inadequate OBE performance in institutions (Mangali et al., 2019). Finally, the implementation of OBE also makes lecturers busier due to increased workload. As a result, they could not allocate the time sufficiently and manage the workload effectively (Damit et al., 2021).

3. MATERIALS AND METHODS

3.1. The multiple case study approach

The case study method is widely used in social science research including anthropology, education, health science, law, psychology, sociology, and political science. The case study approach comes in two varieties: single-case study and multiple-case study. (Creswell & Poth, 2018; Yin, 2018). With a multiple case study, researchers can analyze several samples deeply. The investigation of specific cases begins first. The specific outcomes are then blended later. Researchers attempt to identify parallels and distinctions. Multiple case studies provide a significant benefit over individual case studies as researchers can compare their results (Hunziker & Blankenagel, 2021).

In the current research, four cases were examined. Case 1 is the Otorhinolaryngology course of the Bachelor of General Medicine Program offered by a national university in Hanoi, Vietnam. Case 2 is the General English 1 course for non-English major students of a regional university in Thai Nguyen, Vietnam. Case 3 is the Transportation and Insurance course of the Bachelor of Commerce Program offered by a national university in Vientiane, Laos. Case 4 is the Research Methodology course of the Master of TESOL Program offered by a university in Ho Chi Minh City, Vietnam. Although the four courses and four programs were different, they were selected for this multiple case study as they were piloted with OBE principles and taught by the lecturers who participated in one OBE training project.

3.2. Research background

The Constructive Alignment and Technology Enhanced Outcome-Based Education (CATE) Project funded by the International Network for Quality Assurance Agencies in Higher Education (INQAAHE) was co-conducted by Vietnam National University Hanoi - Center for Education Accreditation (VNU-CEA), the Centre for Academic Partnerships and Engagement (CAPE), University of Nottingham Malaysia and National University of Laos. The

project is expected to contribute to the continuing quality improvement of programmes and courses by bridging the gap between ‘paper’ and ‘practice’ of OBE (Fernandez-Chung & Gill, 2023). Twenty-four people (eighteen lecturers from different Vietnamese universities and six lecturers of the National University of Laos) participated in the project. The participants were divided into six groups. Each group had a group leader and was mentored by a trainer.

The training was designed to be held in two phases, with an in situ project in between. Phase 1 was conducted online for seven days in late 2023. Phase 2 was conducted face-to-face for three days in Hanoi in January 2024, with a colloquium planned for the last day. Topics in Phase 1 include Assessment and Evaluation in OBE; Developing Student-Centred Learning Environments; Technology in Teaching; and Implementing CATE-OBE. Upon completing Phase 1 of the course, participants were ordered to implement constructive alignment in their respective classes. Throughout this journey, they were supported by their tutor-mentor and peers (from the same group; 4 participants in one group). Once the intervention was complete, they were required to produce a reflection report (Fernandez-Chung & Gill, 2023).

3.3. Data collection and analysis

The qualitative data for the research were collected through the end-of-phase 1 reports and participants’ personal reflections. As mentioned above, after completing seven-day training, participants applied the knowledge and skills that they gained in their classes for one semester. When they finished their courses implementing OBE principles, participants were required to write a report that highlights their experience and students’ responses (via the participants’ observation). The reports of four lecturers in this study were collected. Moreover, each lecturer wrote their personal reflections that were not presented in the report.

The four reports and lecturers’ reflections were analyzed according to the thematic approach. According to Braun and Clarke (2006), thematic analysis is a foundational method for qualitative analysis. It can be used to precisely detect, characterize, and analyze patterns, or themes, within a set of qualitative data. It works effectively with any qualitative study that aims to investigate challenging research problems. In this study, the researchers made initial sorting to identify the emerging key patterns. They then returned to the reflection report guideline to spot common themes and categories in the qualitative data.

4. RESULTS AND DISCUSSION

4.1. Changes in Lesson Plans

The teachers who implemented OBE in revising their current lesson plans or developing new ones confirmed several changes. They shared their views below:

Case 1: In order to assist my students in achieving CLOs and to satisfy stakeholders’ expectations in accordance with societal demands, I modified the way I constructed my classes. The CLOs are followed in the design and implementation of teaching activities and evaluation techniques. I created a plan to approach teaching and learning using well-known methods like direct instruction, small group work, case study, and role playing.

Case 2: It is widely known that a lesson plan serves as the teacher’s roadmap for what the students should learn and how to do it in an efficient manner throughout class time. Three essential elements are addressed and integrated in an effective lesson plan namely: learning objectives for students, instructional and learning activities, and methods for assessing students’ knowledge and understanding. Fortunately, I had a chance to join a course on Constructive Alignment and Technology Enhanced Outcome-Based Education (CATE). The good thing when attending this course is that by defining objectives based on real requirements, teaching steps based on Gagné’s Nine Events of Instruction, I can quickly train myself on what is most needed and get ready to excel in a teaching domain. Another good thing is that, after taking the course about OBE, I had a chance to share with my colleagues about the objectives and significance of OBE and also the way of designing curriculum and keeping an close observation on student’s growth at every stage in order to swift from traditional teaching methods to a student-centered learning method.

Case 3: While the project was underway, I made a comparison between an OBE-based teaching plan and mine. I discovered many differences and also adjusted many topics in my teaching plan, for example using Gagné’s Nine Events Instruction to design activities that are suitable for the lessons and integrating web 2.0 learning activities. Importantly, I added lesson learning outcomes to each lesson plan by using measurable vocabulary based on Bloom’s taxonomy, and also designed a rubric for presentation, reporting, and classroom attendance, and shared it all with my students.

Case 4: During the project, I had the chance to develop the lesson plans following the OBE principles, particularly Gagné's Nine Events of Instruction. Frankly speaking, I had previously implemented several OBE principles and some activities of Gagné's Nine Events of Instruction in my lessons, but it was normally due to the fact that I thought they were useful. This time I seriously paid attention to the activities in which I thought my students would be the center of the learning process.

It can be seen that the four cases highlighted the changes in CLO revision and the use of Gagné's Nine Events of Instruction in lesson planning. As the main focus of OBE is on learning rather than teaching (Killen, 2000), teachers need to incorporate active learning practices into lesson planning to increase engagement among learners (Suvin, 2023). This is shared by McNeill and Fitch (2023) that "the use of good design principles is central to engaging, entertaining, and educating learners" (p. 529). Furthermore, Gagné's (1985) Nine Events of Instruction serve as a framework for creating impactful lessons. It is designed to enhance cognitive processing and student engagement, teachers and course designers must focus on instruction, which necessitates procedures that assist the learning process rather than merely educating or talking to students.

4.2. Changes in the Classroom Activities

The participating teachers made several changes in their lesson plans when implementing OBE. When they put them into practice, they observed many positive changes in their classrooms.

Case 1: In my traditional classes, I presented the lecture and the students sat and listened in silence. With the OBE approach, my lessons were more exciting. The students were encouraged to participate in the lesson as much as possible. I kept the role of guiding and supporting students in discussions.

Case 2: This reflection also included my observations on how the students responded to my instruction and the valuable lessons I learned from the process. To be honest, during my teaching hours, I had a variety of fulfilling experiences teaching English to elementary, intermediate and advanced students. Despite the various challenges and opportunities for professional growth presented by each level of student, I constantly found teaching English to be a worthwhile and enjoyable experience at all levels in classroom activities. More specifically, it was a wonderful pleasure to teach English to elementary-level students because I was able to assist the students in developing a solid foundation in the language. To support them in understanding fundamental vocabulary and sentence structures, I employed a number of visual aids, including flashcards, images, and drawings. Naturally, I encountered real-world scenarios in the classrooms, and I began to understand how the theories I had learned in school should be applied to certain instances and what type of adaptations I needed to make. Such knowledge and experiences help me to better prepare for my teaching career.

Case 3: The point I would mention about applying the OBE method into the lesson plans is that I noticed the students had good responses. They paid more attention to the lessons, were more excited with the lesson review activities, and had fun with the mini games used during the lesson. They dared to express their own opinions with friends in group activities. During the class, I also used Web 2.0, especially Padlet, which made the students the most excited.

Case 4: The students were the center of most classroom activities. The flipped class model was also implemented in my lessons. The students were asked to search for relevant articles and prepare their slides at home. During the class, they gave presentations to demonstrate their understanding of the topic. Activities with pairwork and group work were also utilized in my lessons. Peer feedback was also a part of my lesson.

In brief, one of the most obviously-observed changes in the classroom activities of the four investigated cases is the students' active participation. Implementing the OBE principles, the teachers created a variety of activities that encouraged students to share their opinions and join in discussions. This finding is consistent with that of Kaliannan and Chandran (2012), who conducted a research project on OBE implementation in Malaysian higher education. Their result confirms that by implementing OBE, it is possible for learners to assess their knowledge and proficiency in each area they study. As argued by Khan et al. (2023), the expected learning outcomes may not be accomplished unless students actively participate in OBE implementation. The current research also found that the teachers felt excited about their OBE-implemented lessons. This echoes Katawazai's (2021) finding that Afghan academics felt that OBE was a more flexible and effective method than the conventional content-based approach.

4.3. Student Engagement

During their lessons, the four teachers observed student engagement. They shared that in the first OBE-based lessons, the students were not fully engaged. Several students were even reluctant to participate in the classroom activities. However, they gradually enjoyed learning with OBE and engaged more with the lessons.

Case 1: My students played a central role in my lectures. They prepared the content related to the lesson and presented it in class. They also debated with others and discussed with me. I can see that the students actively participated in activities I organized in the classroom.

Case 2: Before the intervention, the students were frequently shy when speaking and had limited vocabulary. I knew that I had to be patient and supportive. Eventually, with regular practice, and greater engagement, they gained confidence and a greater desire to study. More importantly, these students gained a strong foundation of the language and were ready to tackle more difficult vocabulary and sentence structures. I used a more immersive approach and added games, music, and videos into the curriculum to make the courses more engaging and participative. It was inspiring to see how the youngsters' language skills developed and how they became more at ease speaking English. I also learned that I needed to be more explicit in my feedback and provide them with more lessons on appropriate sentence structure and grammar. It was fantastic to observe the students' rapid language acquisition and their enthusiasm for enriching their vocabulary, watch them push themselves to get better and how, over time, their confidence in their language skills developed. I discovered that I learned a lot from these students because they frequently had original viewpoints on language and culture.

Case 3: While I used the new lesson plan in my class, I was so proud to have students waiting to study with me. Some students said that the subject was theoretical, but studying it was not boring, tiring, but exciting. Before that, there were more than 2/3 students in the class who didn't dare to comment on the lesson. They didn't like to answer questions, and discuss with other students. When doing group activities, they were less involved. Some of them even slept during the class, but when using this new teaching method, I saw that the students were very excited. All the students had to answer the questions through Web 2.0, so they had to think about the answers. In addition, they were interested in how their answers were similar to the teacher's or their friends', and they also discussed the answers with their friends. In the working group, the group leader also designed for everyone to express their opinions by presenting comments related to the topic. There were clear differences when compared to lessons without using the new teaching methods.

Case 4: Students were the center of most of the classroom activities. The flipped class model was also implemented in my lessons. Students were asked to search for relevant articles and prepare their slides at home. During the class, they did presentations to show their understanding of the topic. Activities with pairwork and group work were also utilized in my lessons. Peer feedback was also a part of my lesson.

Through the four cases' reflections, it can be seen that OBE-implemented lessons increased student engagement. The students in this study were more confident to join in classroom activities and shared ideas with the teacher and other students. This result supports the work of Craig (2016) that with OBE, students have opportunities to participate in various activities designed to improve their knowledge and skills. They need to be more responsible and actively take part in the learning process. Moreover, when studying in programs implemented OBE, students can assess their own performance in the topic based on the amount of effort and time they put in throughout the term (Kaliannan & Chandran, 2012). However, to enhance student engagement, Khan et al. (2023) advised that teachers should emphasize the significance of OBE, PLOs, and CLOs of their courses to their students at the start of the semester to make them informed of what to expect and what is expected of them in the new teaching style.

4.4. Challenges during the Implementation of OBE

Apart from the achievements in OBE implementation, data from the four cases also reveals challenges and difficulties. As observed by the research participants, both the teachers and students faced challenges in OBE-based courses.

Case 1: Clinical medicine education varies greatly based on the patient load and disease patterns at the practice hospital. There is limited time for each student because clinical instructors treat patients in addition to providing them with practical lessons. The consent of the patient is necessary for learning from them, which complicates the process of preparing lectures for clinical instructors.

Case 2: The majority of the educational institutions applying the OBE model struggle with student record management. They also face problems in defining the course outcomes and curriculum because the approach of OBE requires irrelevant procedure or follows a single idea in achieving the outcomes, which leads to the fact that teachers are confused when developing a OBE-based curriculum. Another problem with OBE is that despite emphasizing student-centered learning, teachers constantly play a vital role in the program's actual implementation as knowledge providers.

Case 3: It is clearly said that teaching to increase the likelihood of most students achieving the outcomes seems to be an advantage; however, it would appear challenging for teachers and learners when frequently following the OBE model. In my opinion, two major challenges are the adaptation of the teacher and the student. As for teachers, they have to adapt by changing the teaching style to be student-centered, focusing on the design of adult-style teaching activities. It is a laborious task that requires a great deal of patience and time. Teachers must pay more attention to analyzing assessment patterns, and teaching plans. Activities must be consistent with the lesson to support the CLOs and lesson learning for students to achieve the PLOs. Another challenge of OBE is defining a clear framework for the outcomes, and during the class teacher must understand the differences of the individual students. The students also do not adapt well to new learning styles which involve doing a lot of activities in class or learning by themselves through activities conducted by the teacher. In OBE-based lessons, students take responsibility for their own learning, and learning is assessed based on outcomes rather than the content taught.

Case 4: I had encountered several challenges during the processes of implementing OBE in my course. First of all, I had to think about new ways of teaching, particularly new activities for each lesson, and even in one lesson. These sometimes exhausted me, honestly speaking. Secondly, even at the end of my course, I could see that not all students enjoyed my lessons. Several of them were still reluctant to participate in the activities.

Regarding the teachers, they experienced challenges in all the stages of OBE implementation. The main reason was that the OBE approach was quite novel for them. Two lecturers in this study were trained about OBE for the first time. This finding corroborates that of Katawazai (2021), who surveyed 120 Afghan lecturers and found that about 50% of the respondents were not fully aware of the OBE model. Most of them had not participated in any OBE training workshop. As for students, obviously, OBE was an extremely new concept for them. They got used to traditional teaching and learning methods, so doing activities requiring their active engagement made them feel strange and unready. It is important to note that "students' awareness has a direct positive influence on students' readiness to adopt the OBE approach" (Khan et al., 2023, p. 11). Moreover, the increase in the workload and lack of infrastructure and facilities to support OBE implementation were also challenges for teachers (Katawazai, 2021).

5. CONCLUSION

In this paper, we share the pedagogical concerns from the perspectives of Vietnamese and Laotian tertiary educational teachers, about the OBE approach and its implementation in the classroom by putting theory into practice through different steps such as changes in lesson plans and classroom activities, as well as in varied aspects including student engagement and challenges during the implementation of OBE. During the OBE-based intervention, the researchers found that *significant changes were made* in the syllabi and methods of *teaching*. More specifically, teachers had chances to adjust the lesson plans following OBE principles, particularly Gagné's Nine Events of Instruction, add lesson learning outcomes to each lesson plan by using measurable action verbs based on Bloom's taxonomy, and also designed specific rubrics for presentation, reporting, and classroom attendance, and shared it all with students.

Despite significant efforts being made to the teaching process, there are certain issues that the educators widely encounter. The first challenge stems from the broad definition of outcome-based education, which causes confusion when teachers try to integrate OBE into their lesson plans. Consequently, teachers choose to employ traditional methods and find it demanding to embrace the OBE paradigm. This is acknowledged in the study of Hadi and Zain (2016) who revealed that the management process and curriculum delivery are disturbed by teachers' inconsistent perceptions of the OBE method and implementation. The second challenge is the adaptation of OBE which requires a lot of time and patience in preparing lectures. This leads to teachers' mental and physical issues. Additionally, teachers need to be equipped with the skills and expertise to oversee a top-notch curriculum delivery process because they were provided with a lot of information in order to make the OBE modifications go smoothly. These findings resonate with some researchers (Rao, 2020; Senaratne & Gunarathne, 2019) who also noticed stress and pressures from teachers who are

suffering from mental and physical problems when spending too much time preparing lesson plans, defining the expected outcomes for the students and measuring the outcomes through assessment given to students.

In conclusion, the application of OBE at higher education is a continuously evolving, cyclical paradigm where evaluating the results is not the end but just the means to attain the intended results. When OBE is implemented well, it creates the space for fresh perspectives and difficult problems to be developed into an educational model that produces better learning outcomes. However, in order for OBE to be effectively implemented in tertiary education, both students and academic staff need to be aware of the goals of learning and their respective roles. Instead of being a linear, unilateral paradigm, education in postsecondary institutions should be an active, engaging process that facilitates students forward into the workforce and get ready for it. Thus, it is hoped that future research will concentrate on evaluating the impact of learning outcomes on learning and numerous factors affecting students' learning outcomes during OBE implementation.

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