

# Implementing Outcomes-Based Approach to Teaching, Learning and Assessment in Higher Education Institutions

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**Abstract** - Higher Education Institutions (HEIs) in Myanmar have gradually moved from the traditional teaching learning approach to the paradigm of outcome-based education (OBE). It evolved through transitional OBE into the era of what William Spady refers as transformational OBE. The transformational OBE is now widely applied in higher education institutions and the universities in Myanmar are trying to implement OBE. The success of OBE copes with demands for high standard of student learning outcomes and active involvement of all stakeholders – students, faculty, employers, parents, and others. At course level or programme level, it needs to start with a clear picture of what is important for students to be able to do successfully at the end of their learning experience. Therefore, the essential elements are: (1) identifying the intended learning outcomes (ILOs) for students; (2) designing the curriculum, teaching, learning and assessment in order to be able students to achieve the intended learning outcomes; and (3) getting the continual improvements to subjects and programme. The approach is illustrated in this paper using the constructive alignment in teaching, learning and assessment activities of an English Language curriculum at the Technological University (Hmawbi).

**Key words:** Outcomes-Based Education (OBE), ILOs, curriculum, teaching, learning, assessment

## I. Introduction

Higher Education Institutions (HEIs) under the Ministry of Education has already changed its education systems including school year, curriculum, teaching-learning processes, assessment, etc since 2011. All three-year course degree programmes in Art and Science universities changed to four-year degree programs to match Association of Southeast Asian Nations (ASEAN) higher education standards and all five-year course degree programmes in engineering education shifted to six-year course degree programmes to align with the requirements of the Engineering Education Accreditation Committee (EEAC). Moreover, Outcomes-Based Education (OBE) has been implemented in some technological universities step by step because it is also one of the requirements of the accreditation criteria. Therefore, in Technological University (Hmawbi), experts from local and international have conducted OBE training and workshops for all teachers several times since there. Coinciding with the new six-year course path, new curriculums and new syllabuses have been introduced in undergraduate level. All respective programme heads and senior professors/lecturers are organized as a subject team and their primary functions are: to identify the intended learning outcomes for their programmes including programme outcomes and course outcomes, review the existing curriculum, revise the curriculum according to the outcomes, designing teaching and learning strategies and activities, assessment plans and

report to the ministry and distribute the curriculum to all technological universities.

## II. What is Outcomes-Based Education (OBE)?

OBE is a process of curriculum design, teaching, learning, and assessment that focuses on what students can actually do (i.e., learning outcomes) after the completion of their study. It attempts to embrace learning outcomes with the knowledge, skills, attitudes and values that match the immediate social, economic and cultural environment of society. According to William Spady (1994) [1], there are three broad types of OBE:

1. Traditional OBE which measures the learning outcomes in terms of students' mastery of the established curriculum,
2. Transitional OBE which measures the learning outcomes of students in terms of generic or higher-order competencies such as critical thinking, problem solving, communication skills and team work, and
3. Transformational OBE which measures the learning outcomes of students in terms of broad category of disciplinary knowledge and skills, generic competencies, attitudes and values required by the industry or society.

According to William Spady (1994), Transformational OBE was based on four principles which, if applied consistently, systematically, creatively and simultaneously would ensure that all students were equipped with the knowledge, competence and qualities necessary for successful fulfillment of their various life roles. These principles became known as: clarity of focus, high expectations, designing down, and expanded opportunity (Table 1).

The essence of "clarity of focus" is that educators must establish a clear picture of the learning they want students to be able to demonstrate; make this their top priority in planning, teaching and assessment; share this outcome with learners; and maintain alignment between outcomes, teaching and assessment. The principle of "high expectations" has three components: raising the level of performance that is considered acceptable, abandoning norm-referenced approaches to assessment and giving all students access to challenging, high-level learning. The basis of "designing down" is to establish significant culminating outcomes and then derive from them the enabling outcomes that will provide the foundation for achievement of the broader outcomes. The concept of "expanded opportunity and support for learning success" is very broad. It includes the idea that time (hours of instruction, timetables, and calendar) should be used to organize and co-ordinate learning opportunities, but they should not define and limit them. It also emphasizes the importance of teachers using different methods of

instruction to accommodate students' different modalities of learning.

OBE principles	Explanation	Application to practice
clarity of focus	Focus on what the learners should be able to do successfully	<ul style="list-style-type: none"> <li>- Help learners develop competency</li> <li>- Enable predetermined significant outcomes</li> <li>- Clarify short and long term learning intensions</li> <li>- Focus assessment on significant outcomes</li> </ul>
designing down	Begin curriculum design with a clear definition of the significant learning that learners are to achieve by the end of their formal education	<ul style="list-style-type: none"> <li>- Develop systematic education curricula</li> <li>- Trace back from desired end results</li> <li>- Identity "learning building blocks"</li> <li>- Link planning, teaching and assessment decision to significant learning outcomes</li> </ul>
high expectations	Establish high challenging performance standards	<ul style="list-style-type: none"> <li>- Engage deeply with issues on learning</li> <li>- push beyond where normally have gone</li> </ul>
expanded opportunity	Do not learn same thing in the same way in same time	Provide multiple learning opportunities matching learners' needs with teaching techniques

Table - 1 Outcome-based Principles (Source: Spady, 1994; Killen, 2000)

When these principles are followed, "Outcomes-based education 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. This means starting with a clear picture of what is important for all students to be able to do, then organizing curriculum, instruction, and assessment to make sure this learning ultimately happens" (Spady, 1994:1).

### III. Literature survey on Teachers from English Departments of Technological and Computer Universities

A literature survey on the teachers from English Departments of technological and computer universities is undertaken to know the current situation of teachers' perception and contribution of curriculum development.

The main problem with implementation of outcome based education is the broad definition of outcome based education itself. While it emphasizes the achievement of outcomes, this also refers to the achievement of learning outcomes (LOs) for a particular course. Due to constraints of time and resources, this study is confined to the teaching staff from English Department of five technological universities and two computer universities. These data are analyzed according to the degree of the questionnaire. The questionnaire has four main parts: 1. Curriculum and syllabus; 2. Intended learning outcomes of the course; 3. Defining teaching learning methods and activities; and 4. Assessment. [2]

Based on the data collected from five technological universities (Technological University (Hmawbi), Technological University (Thanlyin), West Yangon Technological University, Technological University (Taungoo), and Technological University (Mawlamyaing)), all teachers from English Departments have a clear understanding of curriculum and syllabus design for English courses. They also understand how to calculate the credit unit (including the student learning time - SLT). Among the two computer universities (University of Information Technology – UIT and Yangon University of Computer Studies - UCSY), teachers of English Department from UIT also have a well understanding of curriculum that they are applying while some of the teachers from UCSY need to get awareness of clear understanding of designing curriculum.

Concerning with the Intended Learning Outcomes (ILOs), all teachers from these technological and computer universities know well about the outcomes of their courses. But, according to the data, some teachers need training on how to write and define the ILOs and the awareness should extend to students about the ILOs of their programme as well as the courses they are learning.

For teaching learning activities, some teachers have a clear picture of how to align the ILOs and TLAs but some are not and they haven't experienced any OBE or Accreditation training before.

For the time being, teachers from English Department of these seven universities are familiar with the assessment methods. As English is taught as a compulsory subject in these universities and English is also used as the main medium of instruction in all universities, assessment methods are quite more different than other minor subjects. Like other subjects, formative and summative assessments are applied but the difference is how to apply the formative assessment in the classroom. As the main aim of teaching English to engineering and computer students is to enhance their language skills and critical thinking skills, not only tutorial but also written tests linked to course outcomes, oral presentation and assessment, student surveys, individual and focus group interviews, written project reports, assignments, peer-evaluations and self evaluations, role play, think-pair-share, and so on are frequently done as formative assessment in the classroom.

### IV. Implementing Outcome-based Approach to Teaching and Learning

Engineering students have to learn English as a compulsory subject from first year to fourth year in every technological university under the Ministry of Education. Some technological universities are now preparing for programme accreditation to be assessed by Engineering Education Accreditation Committee (EEAC). Applying outcome-based education is one of the criteria of EEAC requirements, thus implementing the OBE processes is mainly important for programme accreditation. Therefore, Technological University (Hmawbi) has started to give the teaching staff a series of OBE awareness training since 2015 and let them review and revise their curriculum based on the OBE processes. Writing intended learning outcomes for all subjects in each programme, designing teaching and learning activities and assessment methods are the processes what all departments have already addressed since then. As mentioned above, English is one of the

subjects that all engineering students have to learn up to four years, Department of English has also reviewed the existing curriculum and developed the new curriculum in order to meet the students' need. Designing the curriculum, the following process (Figure 1) is considered:

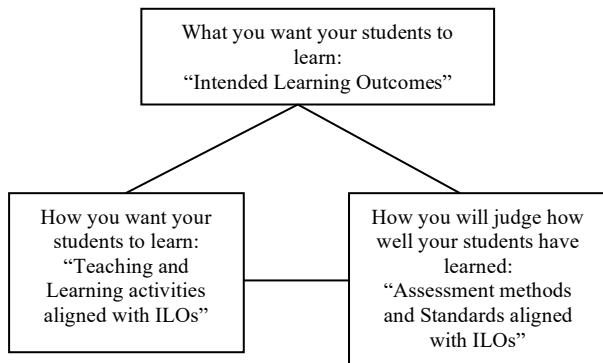


Fig. 1 An Outcome-Based Approach to designing curriculum

As mentioned above, students have to learn English up to four year, only the fourth year curriculum is described in detail in this paper. Under the new OBE curriculum requirements, the curriculum, teaching, learning, and assessment for the subject are described by answering the questions of “what are the learning outcomes”, how to align the curriculum, teaching, learning, and assessment with the ILOs”, and how to implement the curriculum and evaluate the learning outcomes”. [3,4,5]

### Intended Learning Outcomes (ILOs)

After completing the Fourth Year, students will be able to:

- (A) Interpret the extended speech/lectures by following the complex lines of argument provided the topic is reasonably familiar.
- (B) Use English fluently, accurately and effectively on a wide range of general, academic, vocational and leisure topics, clearly making the relationship between the ideas.
- (C) Comprehend a large degree of independence, adapting style and speed of reading to different texts and purposes.
- (D) Write clear, detailed texts on a wide range of subjects related to their interests.

### Aligning curriculum, teaching, learning activities with the ILOs

Focusing the development of students' English Language skills, curriculum and syllabus are revised and developed. Firstly, the learning outcomes that the students should know at the end of the year are identified, textbook, reference books, and other teaching materials are chosen or produced to meet the students' needs, and teaching and learning activities are discussed with the respective teachers in order to align with the ILOs. Before the commencement of the semester, syllabus is distributed to all teachers and lesson plans and teaching schedule of the subject are structured as well as planned the assessment methods. [6,7]

### Implementing the curriculum

There are fifteen weeks in one semester and the learning, teaching and assessment activities comprise of thirty hours of lectures (two hours per week) and fifteen

hours of tutorial and remedial (one hour per week). The teaching periods per week are 2-1-0 and total credit point for each semester is 2.3 based on the calculation of EEAC manual (2018). The following table (Table 2) is the curriculum for Fourth Year engineering students and Table 3 shows course information of first semester for fourth year engineering students.

Learning time (in hours) and Estimating SLT credit for a course:									
No	Course Title	Modules / Topics / units of study	Traditional (Guided) in class learning activities			Total			SLT Credit
			Lect:	Tut:	Pract:	F2F	Non F2F	SLT	
			*F2F	F2F	Non F2F				
1	E 41011	English	30	15	0	45	45	90	2.3

Notes: 1. \* F2F = Face-to-Face 2. \*\* self- learning will include learning from self-learning modules and any additional non F2F hours self-learning and preparation for lecture/ lab, / tutorial and test and evaluation

Table – 2 Curriculum for Fourth Year (for one semester)

### Course information (E 41011)

1. Title of Subject	English		
2. Subject Code	E-41011		
3. Credit Hour	2.3		
4. Pre-requisite	None		
5. Aim of Subject	to enhance their language skills and critical thinking skills		
6. Course Outcomes of Subject	(A) Interpret the extended speech/lectures by following the complex lines of argument provided the topic is reasonably familiar.		
	(B) Use English fluently, accurately and effectively on a wide range of general, academic, vocational and leisure topics, clearly making the relationship between the ideas.		
	(C) Comprehend a large degree of independence, adapting style and speed of reading to different texts and purposes.		
	(D) Write clear, detailed texts on a wide range of subjects related to their interests.		
7. Assessment Scheme	Tutorial/ Assignment	To enhance the understanding of basic concept in lectures (Formative)	20%
	Mid-term Exam	Written exam (Summative)	40%
	Final Exam	Written exam (Summative)	40%
8. Details of Subject	<b>Unit 1</b>	<b>Talented</b>	
	- talk about people's success discuss and evaluate ideas - talk about things you're good at describe and evaluate skills - give advice about an interest or occupation use vague expression to describe categories of things		
	<b>Unit 2</b>	<b>Misunderstandings</b>	
	- describe events in detail - deal with misunderstandings - describe experiences of things going wrong - tell a story from your country - explain why you are not satisfied with a service - write a dramatic story		
	<b>Unit 3</b>	<b>Learners and Teacher</b>	
- express views about different option			

	- describe important mentors in your life - show different attitudes and feelings - describe habits and tendencies in the past and present - talk about education and training	
<b>Unit 4</b>	<b>Local Knowledge</b>	
	- describe landmarks - talk about landmarks where you live - write an email or letter recommending places - describe someone's life and work - give information about interesting or important rights - talk about well-known people where you live	
<b>Unit 5</b>	<b>Images</b>	
	- describe and give opinions about images - choose something for a room - make concessions and counter- arguments - describe designs and designed objects - participate in a decision -making discussion - express disagreement in different situations - discuss what makes a good design	
<b>Unit 6</b>	<b>Virtual Worlds</b>	
	- talk about crimes and justice - justify your point of views - suggest changes to a plan or document - report different of view - describe possible consequences of actions - talk about media and the internet - put forward an argument in a web posting	
<b>Unit 7</b>	<b>Inspiration</b>	
	- talk about how you deal with problem - describe experiences of problem solving - speak tactfully in different situations - describe a scene - participate in a problem-solving discussion - talk about where you get ideas	
9. Teaching and Learning Activities	This subject will be delivered using the following means: *Lecture Hours = 60hours *Supervised Tutorial Hours = 30hours <b>Total Contact Hours = 90 hours</b>	
10. Reading Materials	Textbook	English Unlimited B2 Upper Intermediate
	Reference Books	(1) Essential Grammar in Use by Raymond Murphy 4th edition 2016
		(2) English Vocabulary in Use by Michael Mc Carthy & Felicity O'Dell 2011
		(3) The Placebo Effect <a href="https://www.webmd.com">https://www.webmd.com</a>
		(4) Homeopathy An 'A' to 'Z' Home Handbook by Alan V. Schmukler 3rd edition 2014
(5) How to succeed at Job Interview by Allwell Nwankwo 2014		

Table -3 Course information for Fourth Year (E-41011)

### Evaluating the ILOs

During the teaching learning periods, formative assessment such as tutorial, assignment, and presentation, etc. are carried out as planned at the same time as teaching. Subject teachers communicate expectation and give feedback to the students. Remedial may be needed if the students' outcomes are below expectation. The main aims of doing formative assessment are: to improve for the students to gain an idea of their success by giving feedback to them on their learning achievements and for the teachers to improve methods of instructions by recognizing the "gap" in learning.

Summative assessment is used to assess a person's achievement under the exam conditions, using tests and exams only after the end of each semester and declare only the results/marks. All the assessments must be consistent with the objectives of the course and what is taught and learnt.

The following figure (Figure 2) shows the model of Outcome-based Approach to Teaching, Learning and Assessment.

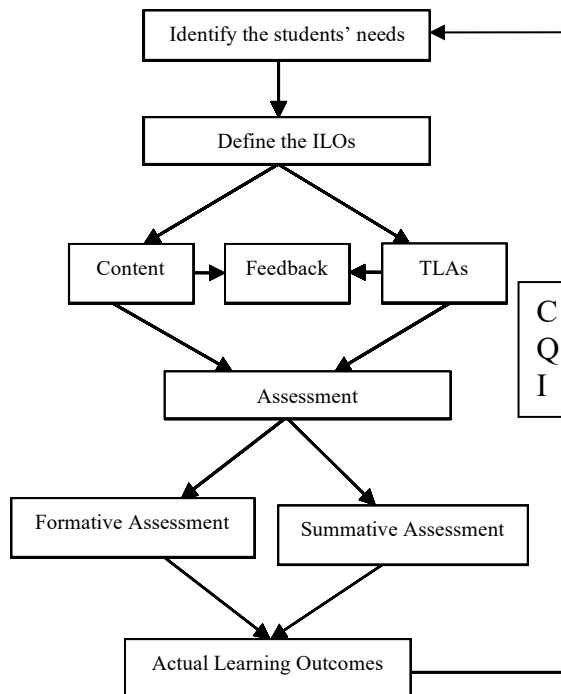


Fig. 2 model of Outcome-based Approach to Teaching, Learning and Assessment

### V. Issues and Challenges in Implementing Outcome-based Approach

There are many issues and challenges of implementing an outcome based approach on teaching, learning and assessment for English Language addressed by the teachers from English Departments of technological and computer universities. Among them some of the common issues and challenges currently met by the teachers are as follows:

- does not know the teaching plan due to the frequent transfer of the teaching staff
- done without referring to the preset ILOs and plan (lack of awareness training)
- No preset teaching learning activities
- does not know how to translate plan into assessment (no enough knowledge of outcome-based education)
- assessing at low-medium level (not challenging)
- no feedback to students except at the end of semester
- does not know how to relate assessment to expected outcomes
- repetition
- bulk marking (No rubric system is used)
- traditional assessment

Another problem faced by the teachers in implementing Outcome-based approach is the perception of students and lecturers towards outcome-based education. While OBE emphasizes on student centered learning, the

actual implementation of OBE is still heavily reliant on teachers/instructors and also teacher-dominated classroom. Apart from directly objective assessments such as final exams, tests, assignments and projects, indirect assessment such as surveys are conducted at the end of each course. There is only one survey conducted, which evaluates the instructor's deliveries of the course by the students. The evaluation on the instructor's deliveries of the course is suggested to somehow influence the students' own perceived understanding of the course. However, it has a gap between the teachers' perception and students own perception on their understanding of the course and its contents as universities haven't deliberately conducted the evaluation on their students understanding of the course yet apart from formative and summative assessment. So some more in-depth study needs to be done in order to develop the outcome-based education in higher education institutions.

## VI. Conclusions

Outcome-based education does offer many powerful ideas, such as a commitment to learning for all students, possibilities for authentic assessment, and interest in an integrated curriculum. Some higher education institutions have been trying these ideas independent of OBE, however. The complexity of institutions as human systems, power or the ownership of the reform process, and theoretical questions about the nature of knowledge and learning remain significant problems. These issues require more study. In addition, it needs to implement more examination of mastery learning competency driven curriculum, and OBE theory; more study of OBE implementation efforts in a variety of institutions; and more long-term research on OBE classrooms. Outcome-based education starts with given generic procedures developed by outsiders rather than the concerns, needs, and commitments expressed by educators, students, and parents in their own situations. Outcome-based education depends on more detailed curricula and assessment, stronger management, and greater effort by authorities from institutions.

In conclusion, OBE concept is quite new to most universities in Myanmar. Technological University (Hmawbi) has started to adopt the OBE process (Figure 1) that comprises: (1) identifying the students' need, (2) identifying the intended learning outcomes for students, (3)

designing the curriculum, teaching learning activities and assessment to enable the student to achieve the ILOs, (4) evaluating the actual learning outcomes that students achieve after the end of the course and (5) try to get continual quality improvements for the course.

Consideration of the Continual Quality Improvement in education system, all higher education institutions need to think about the importance of exam system, library system, administration system, and HR or Finance Division. Moreover, the main factors to be considered is a feedback system on curriculum review, facility improvement and delivery methods. Course curriculum and course information should be reviewed based on a four-year cycle for English Courses.

## ACKNOWLEDGMENT

I would like to express my sincere thanks to Dr. Charlie Than, President, Myanmar Engineering Council, who gave me the golden opportunities to take part in his invaluable trainings on Engineering Education Accreditation and Outcome-based Education. Special thanks are due to my husband, Dr Kyi Soe, for his continued, unfailing support understanding, and encouragement during my pursuit of writing this paper.

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