

Exploring An Approach Towards Measuring Student Learning Outcomes: A Case Study For A Pre-Service Teacher Education Programme at A University In Vietnam

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Article Information:

Received: January 29, 2023, Accepted: March 15, 2023, Published: April 07, 2023

Abstract

Higher education in South-East Asia as elsewhere in the world has been under transformations as it aims to meet increasing demands for quality workforce to fuel the economic growth and global integration. Higher education institutions are striving for quality of student learning and measures have been taken, be they quality assurance initiatives or responsible educational practices, to ultimately demonstrate their accountability towards their educational outputs – the achievement of their student learning outcomes. This paper presents an approach to measuring the attainment of student learning outcomes for a pre-service teacher education programme at a university in Vietnam. It shows attempts being made to an assessment plan to determine whether the intended learning outcomes have been achieved and to what extent. The process involves establishing a set of performance indicators (PIs) which well correspond to the set learning outcomes and identifying various types of direct student achievement data being collected and benchmarked against the set targets. The findings allow some generalisations to be drawn on the overall performance of student learning with certain aspects being reported to outperform their counterparts in the programme, especially in the outcomes towards lifelong learning, personal and professional development. The paper also suggests the use of indirect evidence collected via surveys to stakeholders to allow a more comprehensive picture of the performance of student learning from which better-informed decisions could be made on changes in curricular design and delivery.

Keywords: Student Learning Outcomes; Measurement, Direct Evidence, Indirect Evidence, Performance Indicators

1. Introduction

The past decades have seen increasing interests in more responsible education to all levels of the educational system. Following the trend towards more accountability to taxpayers' money, institutions around the world are making tremendous endeavours to continually triumph over the challenges towards producing highly qualified labour force for the global world of work. Higher education institutions are thus striving for quality student learning and initiatives in quality assurance have been promoted to ensure the quality of graduates with indicators of achievement well measured and evidenced by data (NCEE, 2009).

This urge for enhanced quality and accountability in higher education has facilitated a paradigm shift from ‘a focus on teaching’ to ‘a focus on learning’ with universities around the world making claims towards becoming more learner-centred (Heffernan & Delve, 2013; Rust, 2002). This paradigm shift necessitates ‘a greater emphasis on the development of skills, especially transferable ‘life’ skills, with the writing of course units and modules in terms of intended student-learning outcomes (Rust, 2002, p. 146). The mindset towards assessing student learning outcomes reflects alternative ways of assessing and reporting student learning. This brings the role of outcome-based education (OBE) to the fore, stressing that curriculum alignment should take a focus on learning objectives and on curriculum alignment, ensuring that instructional practices including monitoring, adjusting, feedback and correctives increase the probability of achieving the predetermined learning outcomes (Deivasigamani et al., 2022; Harris & Jones, 2020).

At the University of Foreign Language Studies – The University of Danang (UD-UFLS), tremendous efforts have been recognised in having many of its academic programmes go under accreditation by international body, and in this case, the ASEAN University Network (AUN-QA). Put another way, a pre-service teacher education programme has continued its road towards quality assurance, having gone through the self-assessment process in which the efforts towards measuring the attainment of student learning outcomes can be considered as a pioneering attempt. This initial success well reflects the adoption of OBE practices, starting with stated objectives and outcomes at different levels and aligning instruction towards achieving the predetermined outcomes. In this regard, the measurement of learning outcomes is deemed as important in deciding whether the institution has succeeded in producing the graduates with the stated competences being filled upon graduation. To this end, an assessment plan is essential with direct and indirect evidence being planned, collected and analysed to drive instructional and curricular decisions.

2. Literature Review

It is important, first of all, to look at OBE, an approach to student-centred education that provides some parameters for understanding the assessment procedures for student learning outcomes.

2.1. Outcome-based Education

Outcome-based education or OBE has assumed growing interest amongst many as one of the most potentially successful endeavours for curricular innovation (e.g., Damit et al., 2021; Deivasigamani et al., 2022; Harris & Jones, 2020; Rao, 2020; Rust, 2002; Yusoff et al., 2014). Put forward by Spady (1994) to refer to a systemic reform effort focusing on curriculum goals, OBE requires a focus on developing ‘a future-driven curriculum’ and assessing student performance. With outcomes being used to drive instructional and curricular decisions, this results-oriented approach involves starting with a clear picture of what is important for students to be able to do and then organising curriculum, instruction, and assessment to make sure this learning ultimately happens. Spady (1994) also identifies the keys to having an outcome-based system, which include (i) developing a clear set of learning outcomes around which all the system’s components can be focussed; and (ii) establishing the conditions and opportunities within the system that enable and encourage all students to achieve those essential outcomes (pp. 12-13).

By defining outcomes as ‘actions and performances that embody and reflect learner competence in using content, information, ideas, and tools successfully’, Spady asserts the

importance of having learners do something significant with what they know, known as ‘a major step beyond knowing itself’ (ibid). Therefore, in writing outcomes, it is essential that they should be indicative of the actions or demonstration processes and that require the use of ‘observable action verbs’ like ‘describe’, ‘explain’, ‘design’, ‘produce’, rather than ‘vague or hidden non-demonstration processes like ‘know’, ‘understand’, ‘believe’, or ‘think’.

Spady also identifies key elements of a sound outcome-based approach, also known as ‘the OBE Pyramid’ (1994, p. 19), including (i) *Defining Outcomes* – (ii) *Designing Curriculum* – (iii) *Deliver Instruction* – (iv) *Document Results* – (v) *Determine Advancement*. This sheds light to the development of a constructive alignment, ensuring the outcomes expected to achieve for students upon graduation to align with how teaching and learning are organised, and assessment implemented. This necessitates the development of a constructively aligned curriculum which takes student outcomes as the starting point and which well reflects a learner-centred approach to course and curriculum design (Heffernan & Delve, 2013). Constructive alignment (or CA) is thus important and is now introduced as an outcome-based approach to teaching and learning whereby “the learning outcomes that students are intended to achieve are defined before teaching takes place”, and whereby “teaching and assessment methods are designed to best achieve those outcomes (Biggs, 2014, p.5). Further elaboration on this is now provided.

2.2. Constructive alignment

‘Constructive alignment’, as coined by Biggs (2003), refers to an approach to curriculum design that optimises the conditions for quality learning. In understanding constructive alignment, it is important to look at two aspects of this term – the ‘constructive’ and the ‘aligning’ one. Biggs (2003) refers the former to the idea that students construct meaning through relevant learning activities, and that teaching and learning should take place in a whole system, with all components being integrated and tuned to support high quality student learning. As Shuell (1986, p. 429) notes

If students are to learn desired outcomes in a reasonably effective manner, then the teacher's fundamental task is to get students to engage in learning activities that are likely to result in their achieving those outcomes (in Biggs 2003)

The ‘aligning’ aspect, according to Biggs (2003) refers to what the teacher does, more specifically, setting up a learning environment that supports learning activities in a way that is appropriate to achieving the desired learning outcomes. While assessment, to the teacher, can be at the end of the teaching-learning sequence, it is, to the student, only at the beginning. As Biggs (2003) states, if the curriculum is reflected in the assessment, the teaching activities of the teacher and the learning activities of the learner are both directed towards the same goal. In preparing for the assessment, students will be learning the curriculum. Put it differently by Ramsden, “assessment always defines the actual curriculum” (2003, p. 187). However, assessment is more than informing students of the curriculum content. Brown (1997, p. 7), for example, has a mention that assessment “defines what students regard as important, how they spend their time and how they come to see themselves as students and then as graduates”. This brings in the importance of using assessment as a catalyst for change: “If you want to change student learning, then change the methods of assessment” (Brown, 1997, p. 7).

Assessment, as such, can be taken with individual performances being matched against the criteria, which is more of ‘making holistic judgments’ than ‘a matter of counting marks’ (Biggs, 2003). For Biggs, the intended learning outcomes cannot sensibly be stated in terms of marks obtained. Rather, they should be directed towards stated performance qualities

against which the students' actual learning outcomes can be judged. If this is well practised, the alignment between learning objectives and assessment will be in place. So what assessment data is needed for measuring student performance and the level of attainment against the learning outcomes?

2.3. Assessment of Learning Outcomes

The importance of using data as a critical tool has been acknowledged by many educators for the evaluation of educational practices and monitoring of student progress (NASSP, 2017). Rigorous studies have been conducted to provide a framework for using student achievement data to support instructional decision making. The framework reinforces student assessment data being effectively used to provide a way to assess what students are learning and the extent to which students are making progress toward goals. It also enables proper questioning and obtaining insight about student progress for monitoring continuous improvement and tailoring instruction to the needs of each student (NCEE 2009, p. 5). With armed data and means to harness information data, educators can make instructional changes aimed at improving student achievement. These include (i) prioritizing instructional time; (ii) targeting additional individual instruction; (iii) identifying individual students' strengths and instructional interventions that can help students continue to progress; (iv) gauging instructional effectiveness of classroom lessons; refining instructional methods; (v) examining schoolwide data to consider whether and how to adapt the curriculum based on information about students' strengths and weaknesses (NCEE, 2009, p.8).

This framework needs to embrace both direct and indirect evidence in the process of measuring the learning outcomes attainment. Indeed, most direct evidence of student learning focuses on learning outcomes: the knowledge, skills, attitudes, behaviours, or values that students should be able to demonstrate at the end of their program of study (Suskie, 2009). This explains why assessments of learning outcomes (a.k.a. *summative assessments*), are of interest to many external audiences, including accreditors, employers, and policy makers, because, according to Suskie (2009, p. 23), they can be a good starting point for institutional or programmatic assessment efforts (See also Scholl & Olsen, 2014, p. 37-38).

With OBE being more than producing outcomes for any existing curriculum (Rao, 2020), keeping track of student learning by assessing learning outcomes is thus deemed important. For this end, student learning performance needs to be assessed. Examples of student performance can be writing assignments, projects, studio and laboratory assignments. When alternative assessments rather than mere traditional multiple-choice tests are used, students are allowed to engage in doing real-life tasks, which may range from analysing case studies, conducting realistic laboratory experiments, or completing internships, and so forth. According to Suskie (2009) performance assessments have dual components - the assignment or prompt that tells students what is expected of them, and a scoring guide or rubric used to evaluate completed work (p. 26). This allows educators to gauge the level of student achievement of tasks while maximising their learning experience. As well claimed by Suskie (2009, p. 26), performance assessments merge learning and assessment together, that is students learn while they are working on their authentic assessments, which give them realistic and more meaningful learning situations whereby they can solve real-world problems in professional settings. This brings in the necessity for collecting indirect evidence which mainly scrutinises the levels of satisfaction of different stakeholders on the quality of student learning and their experiences. This kind of evidence can often be collected via survey questionnaires or direct meetings with stakeholders. The aspects regarding the learning

inputs, learning processes and learning experiences might be good components for assessment of student learning outcomes. Heffernan and Delve (2013) also delve into the need for measuring student outcomes, also considering the level of satisfaction from stakeholders via student test results (direct measures) as well as ‘regular questionnaires distributed to students throughout the semester’ (p. 17), indicating the relevance of indirect measures. A prescription of direct and indirect measures for collecting data can be summarised by Breslow (2007) in **Table 1**.

Table 1. Methods of measuring learning outcomes

	Educational Researchers	Faculty
Indirect Measures	- Freshman/senior surveys - Alumni surveys - Graduation rates - Number of students progressing to advanced degrees	- Grades - Course Evaluations (during and/or end of semester) - Concept questions (muddy cards, and other-in-class techniques)
	- Surveys of student attitudes about new pedagogy, curriculum, etc.; surveys asking students for reflections on their learning - Exit interviews	
	- Standardised tests of general education skills - Think-aloud protocols	- Grades - Standardised tests of disciplinary knowledge
Direct Measures	- Pre- / Post- tests - Analysis of assignments designed to test conceptual understanding (e.g., concept maps, pro/con grids) - Observation of students performing a task - Analysis of student work products (e.g., exams, essays, presentations) - Senior thesis - Portfolios compiled over course of undergraduate study	

(Adapted from Breslow, 2007)

According to Breslow (2007), methods that are used to measure student performance each having its own limitations, which means no method can be counted on to be completely error free. In this case, triangulating the data is considered by many as best practices in educational research. In fact, if several different sources of data are used, it increases the probability that the findings present a more accurate picture. Put it another way, the strongest assessment programs will rely on a mix of direct and indirect measures. Some indirect measures can be mentioned with data collected from surveys of seniors and alumni, retention rates, graduation rates, number of students progressing to advanced degrees, etc. or from employers or businesses where graduates work. Direct measures, on the other hand, provide more evidence of the increase in students’ knowledge and skills. Chief among these, mentioned by Breslow (2007), are standardized tests, assignments that involve student performance of conceptual tasks or portfolios compiled over a course of study. Breslow (2007) also has mention of

rubrics which can be developed to analyse papers, thesis, or portfolios to assess learning, or grades to measure the extent or level of student learning against targets.

For a more accurate assessment of student learning outcomes, a combination of methods could be considered. Maki (2004), for example, suggested using the Multiple Methods, which allows educators to balance the limitations that only single method may reveal while providing students the opportunity to demonstrate their learning. It also contributes to an overall interpretation of student learning as well as their experience in the whole programme.

3. Methodology

3.1. Setting

This paper explores an approach towards measuring the student learning outcomes of a language programme in a higher educational setting. It contextualises an approach to teaching and learning which is student-centric and which focuses on attempts to measure the attainment of student learning outcomes. The programme under question is a pre-service teacher education (i.e., the English Language Teaching or ELT for short). As it follows the OBE stance, the programme builds on the expected learning outcomes (PLOs) as the starting point from which a set of performance indicators (PIs) are established to enable the PLOs to be measured via both direct and indirect means.

As a required QA procedure, the ELT programme as its counterparts in the institution, has been revised on a two-to-four-year basis. Since the programme follows OBE, it has several PLOs being formulated, reflecting the requirements of, and feedback from, different stakeholders. These PLOs reflect the ministerial standards for language teachers, and they are benchmarked against TESOL competency framework for English language teachers, the educational philosophy of the institution, the European lifelong learning framework and feedback from stakeholders like employers, alumni, teachers, and students.

As a step towards measuring the PLOs, identifying the performance indicators (PIs) for each PLO is important as it enables the PLO to be more easily measurable. The triangulation principle is adopted here, that is, three PIs (e.g., PI1.1, PI1.2, and PI1.3) being identified for PLO1, and then a mapping is enacted to match PI1.1 with three courses in the programme which are most representative for this domain of subject knowledge and skill set, not to mention the fact that the prescription of the PI should go well with the statement of a course learning outcome (CLO) in terms of the cognitive verb stated in the course syllabus.

Decision was then made on the type of assessment needed to verify the achievement of the learning outcome, be it a quiz, a test question, a task in a written test, an essay, a problem solved, a lesson plan designed, a project, a roleplay, or a simulated event. In this sense, achievement data has been identified, paving the way for the collection of student performance score on these representative samples. As the goal is to measure the overall achievement score against stated indicators It is important to know that the sample score is taken anonymously.

3.2. Assessment Plan and Data Collection

As has been discussed, the measurement of student learning outcomes can be carried out using both direct and indirect evidence. While direct measures elucidate how students demonstrate their knowledge and skills with tangible and self-explanatory evidence of what students have and have not learned as a result of a program), indirect measures capture students' perceptions of their knowledge and skills gained over the course of study (Suskie,

2004). In this way, indirect measures supplement direct ones by providing information about how and why learning is occurring. While examples of direct measures often include objective tests, essays, presentations, classroom assignments, this case study takes into account the use of quizzes, essays, oral group presentations, project reports, writing and translation portfolios, theatrical roleplays and simulations, and graduation thesis. Action research is also included with data being collected regarding how students analyse current practices in schools and make recommendations for improved instructional practices during their practicum. Examples of indirect measures for this case include self-assessment, peer feedback, end of course evaluations, questionnaires, focus groups and exit interviews and stakeholders – alumni and employers’ meetings and surveys.

For the assessment to be in place, a plan was thus established, with details given regarding all PLOs and corresponding PIs, assessment courses, assessment data, time frame and teachers in charge of assessment score samples. This assessment plan was displayed in the form of the Gant chart (See **Figure 1**), clearly stating the assessment courses to be assessed for what PI and in what semester.

As such, different types of student achievement data were collected following a well-set assessment plan, and targets were set for collected student data to be benchmarked against so that some generalisations could be drawn on the overall performance of student learning. To assist direct measures of assessment, several surveys, course evaluations, exit group interviews or tracer studies were conducted to gauge the perceptions of the stakeholders including students on the achievement of the student learning outcomes.

ASSESSMENT COURSES	Term 1	Term 2	Term 3	Term 4	Term 5	Term 6	Term 7	Term 8	ASSESSMENT DATA
Advanced English Grammar					PI 1.1				Quiz on Morphology (Text Analysis – Word Building)
					PI 2.1				(Sentence Structure Analysis/Sentence Building)
Speech Training	PI 1.1								Group Presentation
College Study Skills	PI 5.1								Mid-Term Tests/ Presentation
Integrated English Skills B2.2				PI 9.2					Writing Portfolios
English Speaking Skills B2.3				PI 2.2					Group Presentation
English Speaking Skills B2.4				PI 2.2					Writing Portfolio
English Reading Skills C1.1					PI 1.2				Final Test (MCQ items)
					PI 2.3				C1.1 Final Reading Test (MCQs)
					PI 1.2				Final Test (Task 1- Letter)
English Writing Skills C1.2					PI 1.3				C1.2 Final Test on Writing (Task 2- Essay)
					PI 4.1				C1.2 Final Test on Writing (Task 2- Letter Writing)
Translation 2							PI 2.1		Individual Journal
							PI 2.3		Final Test (Part 1)
							PI 7.1		Project Planning Report
							PI 7.2		Group Portfolio
English Literature							PI 2.3		Final Critical Essay
							PI 3.1		Theatrical Projects
							PI 3.2		Final Test (Critical Essay)
							PI 9.3		Literature Roleplay Performances
British Culture					PI 3.1				Mid-term Group Presentation
					PI 3.2				Final Test (Gap Fill - Matching)
Cross Culture							PI 3.1		Final Test (MCQs/Short Answers)
							PI 3.2		Quiz
							PI 3.3		Mid-term Group Presentation
ELTM 1/ PELTM 1					PI 5.1				Mid-Term Quiz (Open-ended Qs)
					PI 5.2				Final Test (Essays)
ELTM 2 / PELTM 2						PI 5.2			Mid-Term Portfolio (Individual Lesson Plans)
						PI 6.1			Final Test (Activity Design)
							PI 4.2		Micro-teaching
							PI 5.2		Group Lesson Plans (for Micro Teaching)
							PI 5.3		Lesson Plans
ELTM 3 / PELTM 3							PI 6.1		Group Lesson Plans

Figure 1. Snapshot of Assessment Plan by Term

4. Results And Discussion

4.1. Assessment by means of direct measures

Below is a report on the measurement of the PLOs of the English Language Teaching (ELT) Programme using the direct measures. Adopting the triangulation principle, normally three PIs for each PLO (i.e., PLOs1-9) are established except for PLO4 whereby only two PIs identified. For this current programme, PLOs 1-2 are directed towards student linguistic competence, PLOs 3-4 for communicative competence, PLOs 5-6 for pedagogical competence while PLOs 7-9 are for generic competence and professional growth. Within the space constraints, only some of these PLOs are in display (See **Table 2**).

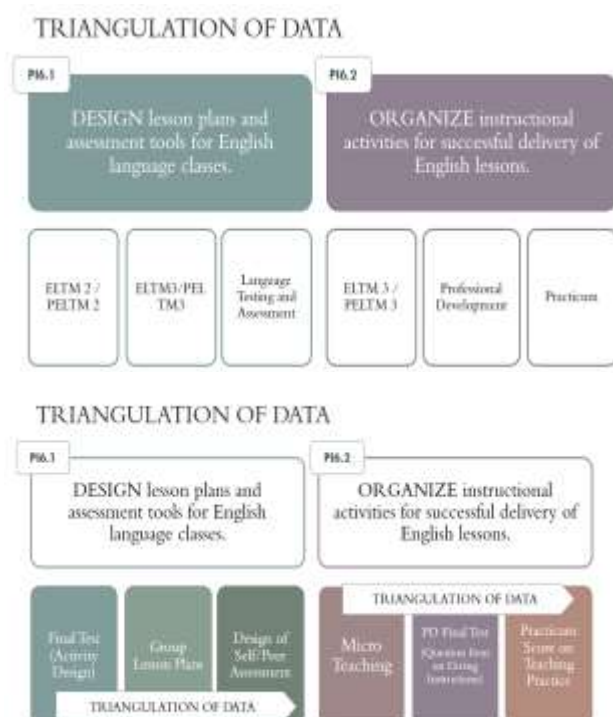
Table 2. Breakdown of PLO2-PLO6-PLO8

PLOS	PIs	ASSESSMENT COURSES	ASSESSMENT DATA	TIMELINE WEIGHTING
PLO1. DEMONSTRATE (APPLY) a good command of English language in aspects of phonology, morphology, grammar, syntax and semantics.	PI1.1. IDENTIFY elements of English language – grammar, vocabulary, and pronunciation	Advanced English Grammar (AEG)	Quiz on Morphology (Text Analysis – Word Building)	Term 5 (19-20)
		Speech Training	Group Presentation	Term 1 (17-18)
		English Listening Skills C1.3	Final Test (Gap-Fill / Short Answers)	Term 6 (19-20)
	PI2.2. APPLY spoken texts in communication and message transfer.	Introduction to Pragmatics	Quiz	Term 6 (19-20)
		English Reading Skills C1.1	Final Test (MCQ Items)	Term 5 (19-20)
	PI1.2. DEMONSTRATE knowledge of English language skills – Listening, Speaking, Reading, and Writing.	English Writing Skills C1.2	Final Test (Task 1-Letter)	Term 5 (19-20)
		English Listening Skills C1.3	C1.3 Final Listening Test (Questions – Recognition/Short Answers)	Term 6 (19-20)
	PI2.3. APPLY written texts in communication and message transfer.	English Speaking Skills C1.4	C1.4 Individual Presentations (Video Clips)	Term 6 (19-20)
		Translation 2	Final Test – Task 1	Term 7 (20- 21)
	PI1.3. DISPLAY knowledge of English discourse and text to synthesize sentences and construct meaning in			

	communication.			
PLO6. ORGANISE (APPLY – ANALYSE – EVALUATE – CREATE) the teaching of English as a foreign language to learners of diverse needs	PI6.1. DESIGN lesson plans and assessment tools for English language classes.	(Primary) ELT Methodology 2 (ELTM 2/PELTM 2)	Final Test (Activity Design)	Term 6 (19-20)
		(Primary) ELT Methodology 3 (ELTM 3/PELTM 3)	Group Lesson Plans	Term 7 (20-21)
		Language Testing and Assessment	Mid-Term Assignment (Design of Self/Peer Assessment)	Term 7 (20-21)
	PI6.2. ORGANIZE instructional activities for successful delivery of English lessons.	ELTM 3/PELTM 3	Micro Teaching	Term 7 (20-21)
		Professional Development	PD Final Test (Question Item on Giving Instructions)	Term 8 (20-21)
		Practicum	Practicum Score on Teaching Practice	Term 8 (20-21)
	PI6.3. USE appropriate technologies in designing and delivering course contents.	Technology for ELT	Themed Group Assignments (Final)	Term 6 (19-20)
		Adapting Teaching Materials	Portfolio of materials designed and adapted	Term 8 (19-20)
		ELTM 3/PELTM 3	Micro-Teaching	Term 7 (20-21)
PLO8. DEMONSTRATE (APPLY) an ability to practice life-long learning for personal and professional development.	PI8.1. ACQUIRE and APPLY new knowledge as needed for personal and professional learning in both mother tongue (L1) and foreign languages (L2).	Translation Theory	Final Test (Gap-Fill / Text Translation)	Term 5 (19-20)
		Professional Communication	Project - Career Plan Book	Term 8 (20-21)
		Practicum	Practicum Action Research Report	Term 8 (20-21)
	PI8.2. DEMONSTRATE self-reflective and autonomous	ELTM 3/PELTM 3	Self-made Videos/Reflections of Teaching Practice on LMS	Term 7 (20-21)

	learning for the of pursuit professional development.	Professional Communication	Career Plan Book	Term 8 (20-21)
		Professional Development	Textbook Evaluation / Giving Instruction	Term 8 (20-21)
	PI8.3. EXHIBIT critical and creative thinking in pursuit of professional development.	Technology for ELT	Group Portfolios	Term 6 (20-21)
		Adapting Teaching Materials	Question Item 1 - Critical Essay (use of textbooks)	Term 8 (20-21)
		Professional Communication	Group Entrepreneurship Projects	Term 8 (20-21)

Table 2 shows a breakdown of some PLOs with PIs being set and assessment courses selected based on a matrix showing the relevance and contributing level of the CLOs to the PLOs. For example, with PLO6, three PIs (i.e., 6.1-6.2-6.3) were identified with relevant courses in alignment with CLOs being mapped to contribute to the attainment of the PLO. Relevant student work was then chosen, and the triangulation of data sources was to ensure a collation of various sources of rich direct evidence (See **Figure 2** below).



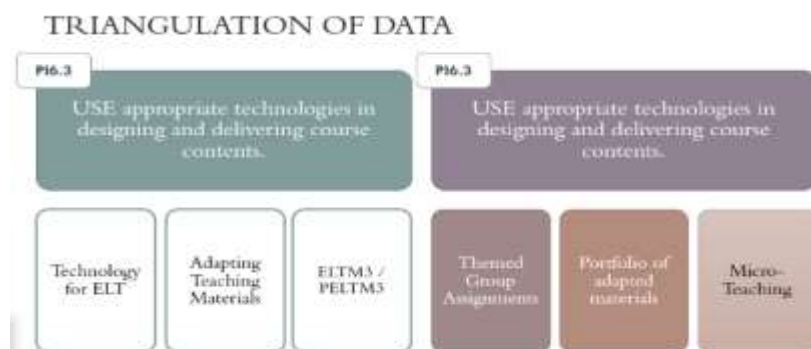
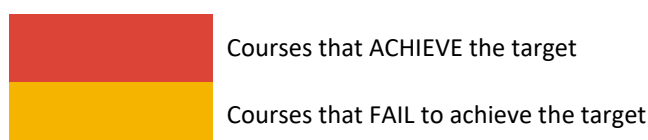


Figure 2. Snapshots of Triangulation of Data for PLO6

To facilitate the interpretation of direct data, achievement target was established for all PIs. It is important to note that students pursuing the ELT Programme at UD-UFLS are good-performing ones with the highest entry score into the university, and that they often excel in their performance in terms of professional knowledge and skills as well as professional ethics and lifelong competence. With the credit-based training system, student performance is assessed by 10-point scale or 4-grade scale with A being equal to 8.5-10, B (7-8.4), C (5.5-6.9), and D (4-5.4). To measure the attainment of the PLOs for this group of high-performing students, the target was set for students to achieve Grade A, an equivalent of 85% or more of the student work achieved:

Target: 65% of students achieved 85% of the work score.

With this set target, the data collection for each PI according to the assessment plan was carried out with each PI being presented on a single spreadsheet, showing the specific samples of student work and their achievement rates. After that, the results for each PLO were synthesized to showcase the level of attainment of the PLO. Following this is a brief interpretation of some sample results, and the colour coding as shown helps illuminate whether the course provided in the programme has achieved the target.



In what follows is some interpretation of the results based on the direct evidence collected from student work as planned in the assessment. The achievement rates of each PI for PLOs 1, 6 and 8 are presented below, which will then be proceeded with generalisations on the level of attainment of student learning outcomes. **Figure 3** illuminates the attainment of student learning outcome towards linguistic knowledge with details going down to each contributing course. Students achieved PI 1.1 at 70% given the fact that some could not reach the required target, for example, in Speech Training. This can be interpreted that the course was delivered in the very first semester, and students still have a long journey to go with further practice

being offered in integrated English skill course series throughout their college years. For PI 1.2, students in general could not reach the target in terms of language proficiency with the highest proportion being 63% which is 2% away from the required target (65%). This indicates that students need another term for reinforcing their language proficiency to meet the advanced level of English.

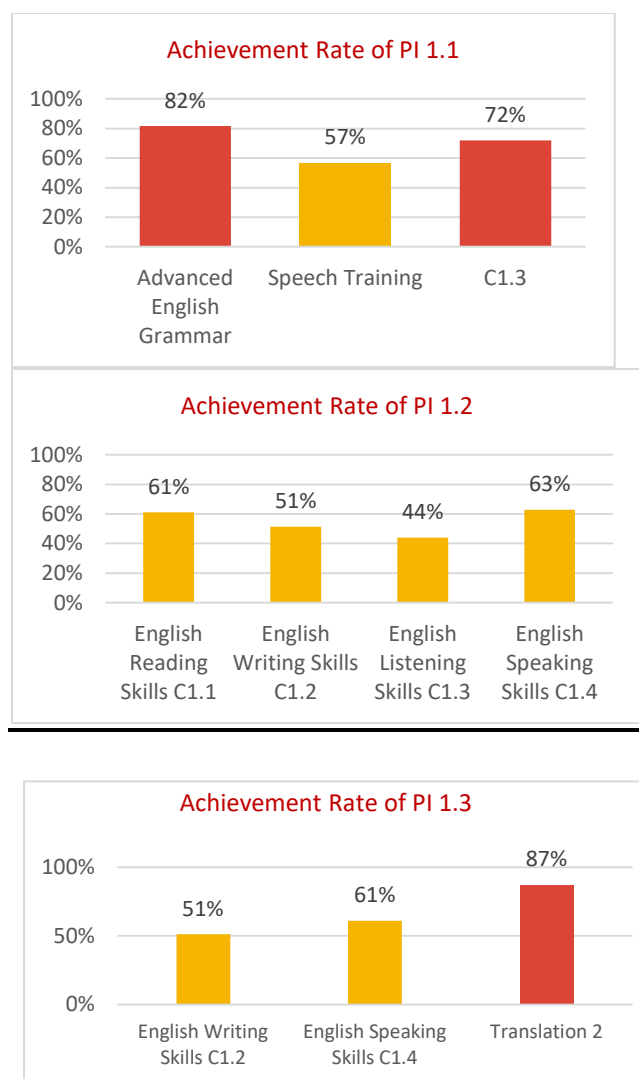


Figure 3. Achievement Rate of PIs 1.1, 1.2 and 1.3.

With PI1.3, students are expected to show their competence in interpreting written texts and transferring message via translation, still failing to demonstrate spoken and written communication at an advanced level. Indeed, students still have another one year to work towards graduation when they are expected to reach the level of C1 of the CEFR (or Level 5 of the VSTEP), equivalent to the achievement of 8.5 out of the 10-point score.

Regarding pedagogical competence, via the data collected for PLO6 – “*ORGANISE the teaching of English as a foreign language to learners of diverse needs*”, ELT students are expected to perform several pedagogical tasks, from designing instructional activities to developing effective assessments (**Figure 4**).

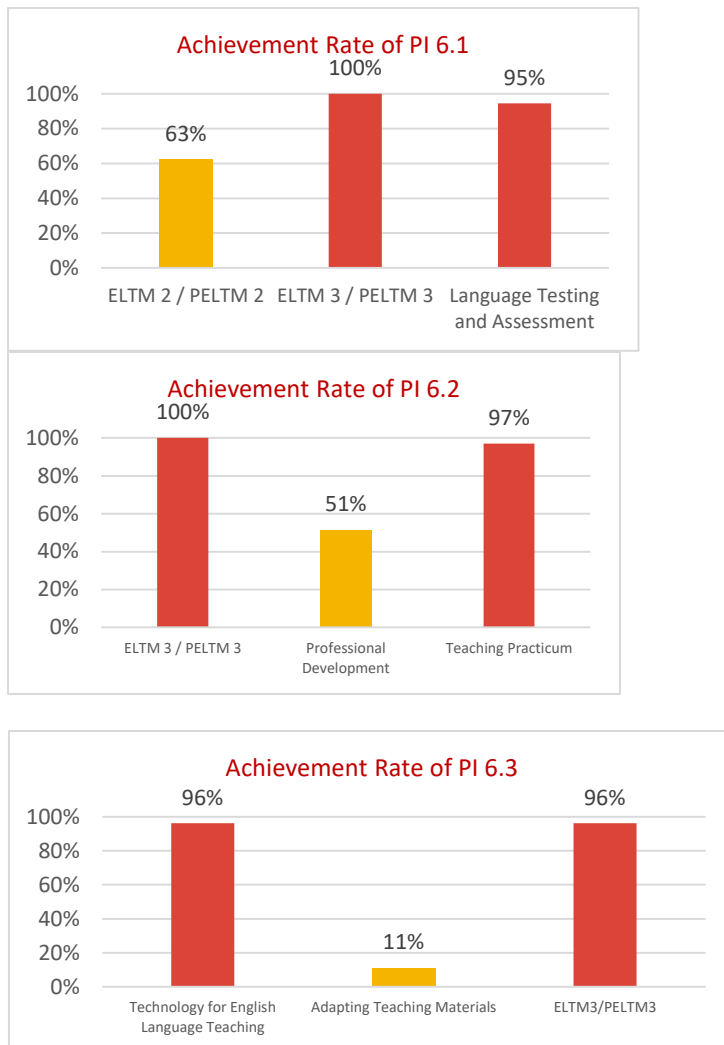


Figure 4. Achievement Rates of PIs 6.1, 6.2 and 6.3

Given the fact that the score of ELTM 2 is lower than expected, it does not affect the overall attainment rate of this PI. As the data of PI 6.2 show, students could well perform teaching tasks in the classroom, but still find it challenging to give certain instructions. As this is a specialized module, it is recommended that more professional training be given to students.

Data for PI 6.3 show that students could make use of technology in their teaching, yet the task of adapting materials effectively poses a great challenge for students with only 3 out of 27 students meeting the excellence target (a modest 11 %). Interestingly, all the PIs set for PLO8 have been well-evidenced with rich student data collected showing a high level of attainment. While this PLO is more directed towards generic skills and competencies like critical and creative thinking, lifelong learning, self-reflection, personal and professional development, all student data collected have well indicated quite a high level of achievement, even much higher than the set target (scoring 85% or more). This reflects the faculty initiatives in embedding critical and creative learning skills and in integrating PBL and experiential learning in the English courses.

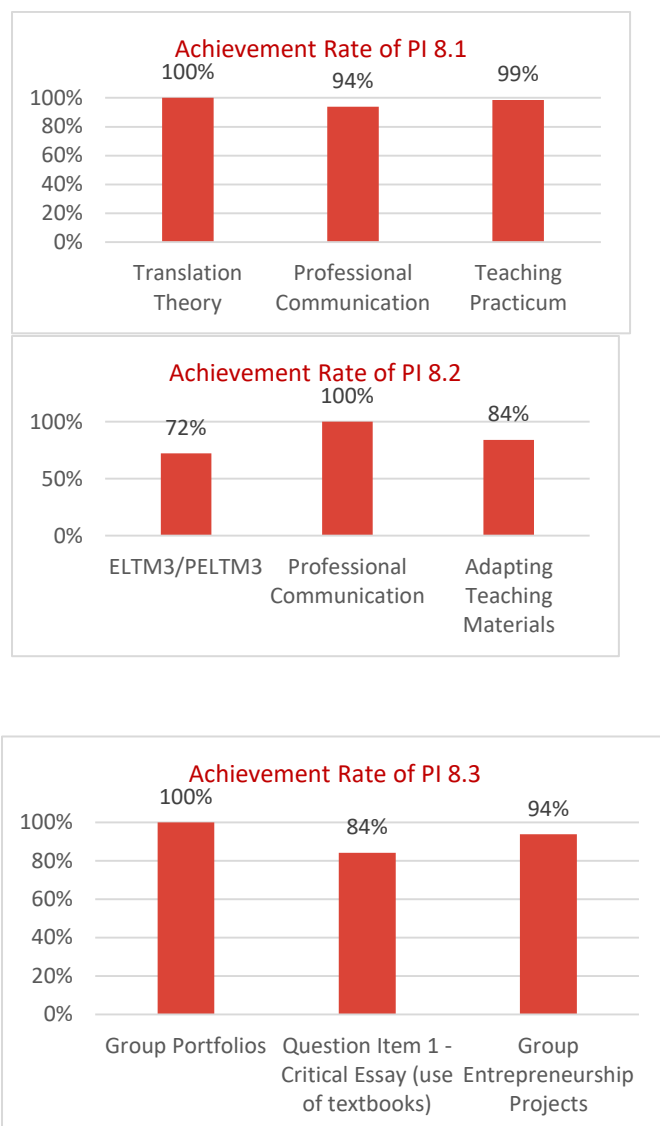


Figure 5. Achievement Rates of PIs 8.1, 8.2 and 8.3

As the data in Figure 5 show, PI8.1 has well achieved the target with over 90% of the students demonstrating high level of achievement. This indicates that students are well-developed in their L1 and L2 communication and are ready for their future employment. Overall, students have met the target requirements in PI8.2, which implies the learner autonomy enhancement and the ability to realize career goals. PI8.3 follows a similar pattern, showcasing that the ELT students have exhibited their lifelong learning competence, from critical and creative thinking to entrepreneurial mindsets.

The results as such were synthesised to give the overall attainment for each PLO. Despite the lower-than-expected performance of an individual course contributing to a specific PI, or of a specific PI to its corresponding PLO, the overall performance of each PLO can be offset thanks to the better performance of students perceived in courses with more practical elements delivered in semester 7 or 8. **Figure 6** shows the overall attainment of individual PLOs for the whole ELT Programme for Cohort graduating in 2021.

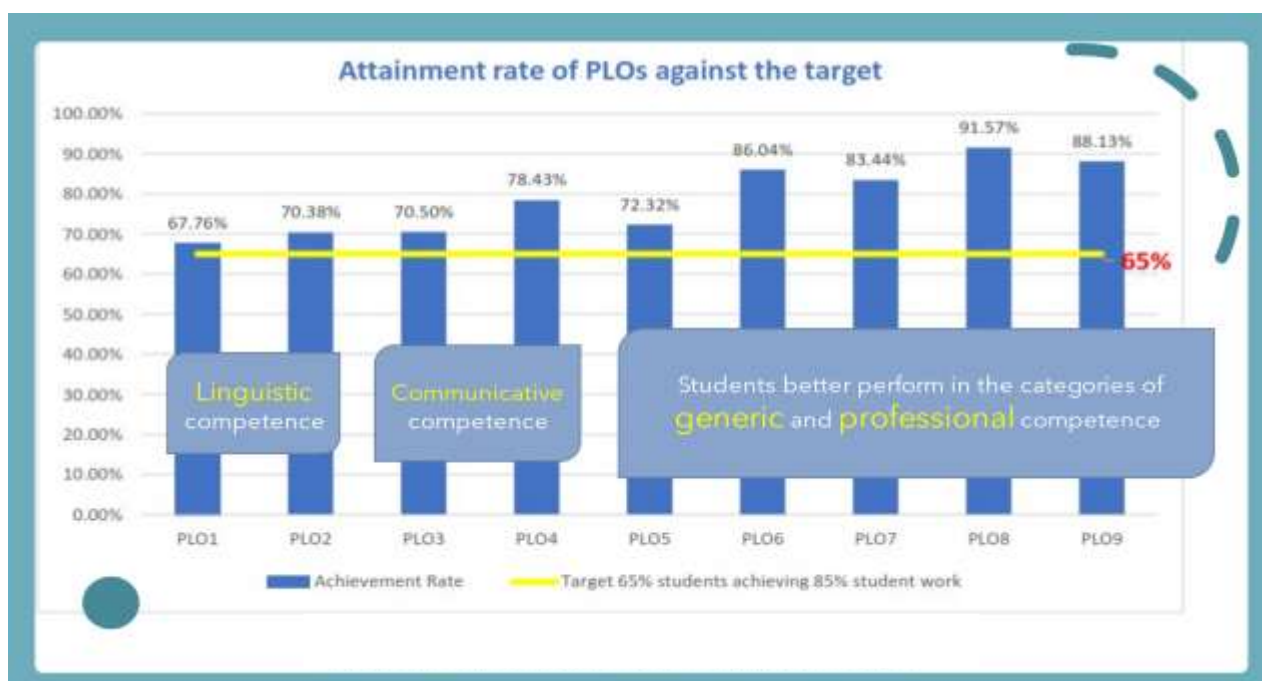


Figure 6. Overall Attainment Rate of the PLOs of the ELT Programme

What can be seen from **Figure 6** is that most PLOs of the ELT Programme have met the target set – **65% of ELT students achieve 85% of the work**, with PLO8 achieving the highest rate whereas PLO1 the lowest. The findings have showed a consistently high level of achievement in the pedagogical and professional domains relating to language pedagogy and practice, together with capability in terms of personal and professional growth and lifelong learning. In the second category are PLO6-PLO7-PLO9 with the rate of achievement being above 80%, indicating the fact that ELT students are highly capable in organising the instruction of English with independent and teamwork, team building and life-enhancing skills. However, the rates for PLO1-PLO2-PLO3 and PLO5 are comparatively lower than their counterparts in the professional domain, which means the linguistic and cultural competence of students need further investment to lever this communicative language competence, ranging from linguistic to actional and socio-cultural competence of students, as well as theoretical aspects of language pedagogy. Given the rates for PLO1, PLO2, PLO3 being comparatively lower than other PLOs, we can see a correlation with the pass rates of ELT students in the previous cohorts regarding graduation requirements for language proficiency at 60%, 56% and 60% for cohorts 2014, 2015, 2016, respectively. Benchmarking with these figures for the three consecutive past cohorts, the attainment of the PLOs towards language proficiency and language communicative competence is much higher, yet still in need for improvement. This leads us nicely to the discussion of the findings generated via the use of indirect means for measuring learning outcomes.

4.2. Assessment by means of indirect measures

Data for the level of satisfaction towards the PLOs of the ELTs were also collected right at the time of establishment to see the relevance and eligibility of the PLOs. Stakeholders' feedback was collected, for example from teachers and students as shown in **Figure 7**, showing a high level of relevance of the PLOs which are logically structured, which cover both generic and subject specific professional domains, and which reflect stakeholders' requirements and expectations.

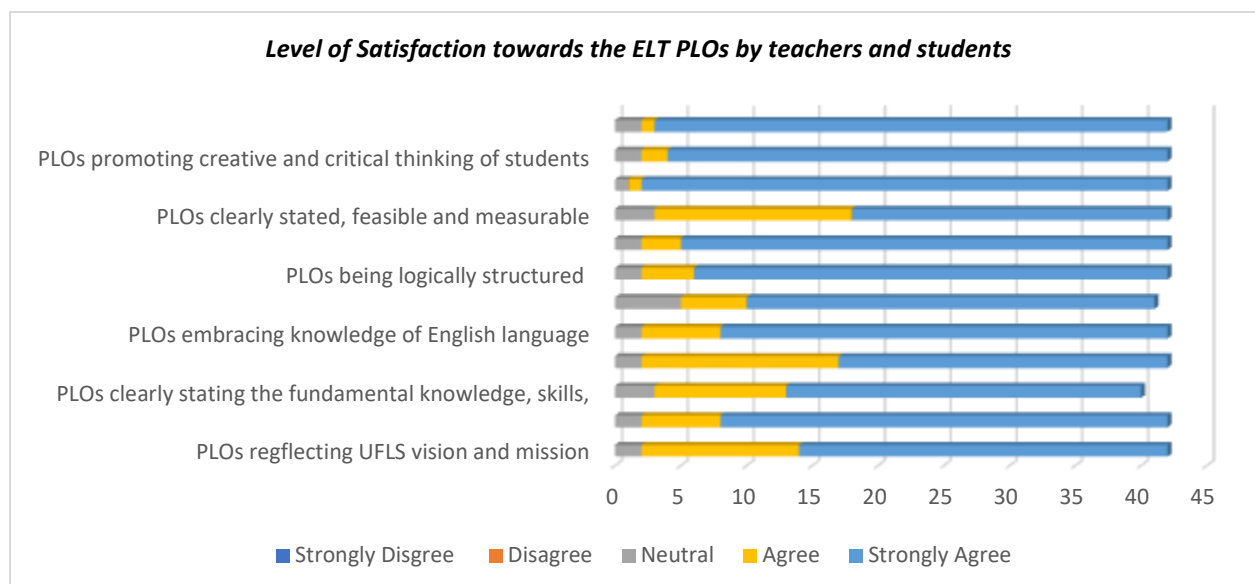


Figure 7. Level of relevance of the PLOs of the ELT Programme

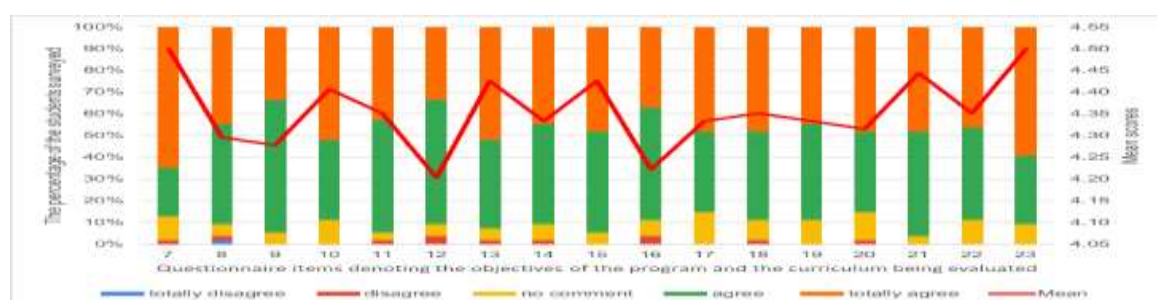


Figure 8. Students' opinions on the objectives of the program and the curriculum (Graduating in 2021)

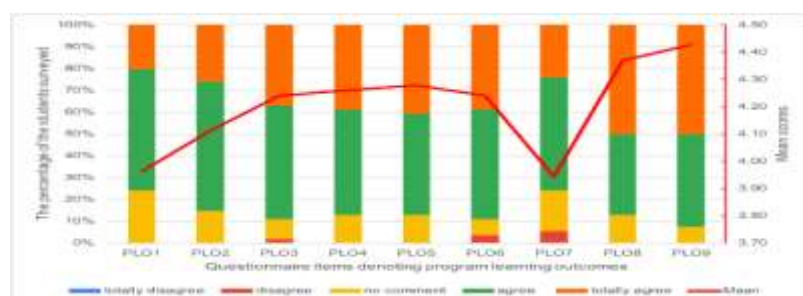


Figure 9. Students' evaluations on their achievement level of the program learning outcomes (Graduating in 2021)



Figure 10. Students' evaluations on their achievement level of the ELT PLOs (Graduating in 2020 and 2021)

Data were also gathered taking graduates and alumni's opinions on the fulfilment of the programme objectives upon graduation. **Figures 8-10** capture opinions on the relevance and the achievement level of the programme learning outcomes. The findings are consistent whether directly or indirectly, that is, the level of attainment of PLO 1 and PLO 7 were comparatively lower than that of other PLOs. Comparative data collected to compare two cohorts graduating in 2020 and 2021 show a higher level of achievement for graduates in 2021, which is deemed attributed to some interventions initiated on action research and research projects, making the level of achievement for PLO7 higher than its 2020 rate. Similarly, the results of the graduate survey showed a consistently similar or higher level of satisfaction towards the curriculum as well as instructional performance compared with the previous ELT programme, 4.21-4.46 against 4.22-4.50 of the 5-point range (**Table 3**).

Table 3. Students' opinions on the objectives of the program and the curriculum

No.	CONTENT	Cohort 2016-2020 (Mean)	Cohort 2017-2021 (Mean)
1	Program objectives are clear and meet society' requirements.	4.46	4.50
2	The curriculum content is appropriate to its program objectives.	4.26	4.30
3	The curriculum content and structure is well-balanced between generic and specialised domains.	4.28	4.28
4	The curriculum is flexible and creates favourable conditions for students.	4.39	4.41
5	Learners' expected knowledge, skills and qualities are well presented in the learning outcomes of the course.	4.43	4.43
6	Teaching strategies and forms of testing and assessment in the curriculum are reasonable and develop learners' independent learning and creativity.	4.33	4.33
7	The number of credits for domains of language skills is adequate to develop students' communication skills.	4.21	4.22
8	The number of credits for domains of language teaching methodology and professional development is adequate to develop students' teaching competences and classroom management.	4.26	4.33

9	The number of credits for domains of Literature, Culture and Translating is adequate to develop students' Inter-Cultural competence.	4.31	4.35
10	The number of credits for generic and specialised domains is adequate to develop students' civic and professional responsibility.	4.31	4.33
11	The number of credits for specialised and skills-oriented domains is adequate to develop students' competences in doing pedagogical research, proposing initiatives, analysing and writing reports.	4.30	4.31
12	The number of credits for specialised and skills-oriented domains is adequate to develop students' skills for critical thinking, creativity, debating, information technology application, communication, independent working and collaboration and enhance their ability to practise lifelong learning and to grow as a person and as a professional.	4.43	4.44
13	The content and the time distribution for the internship semester is appropriate.	4.34	4.35
14	The graduation thesis is reasonable and practical.	4.44	4.50

4.3. Overall Assessment Results and Implications for Quality Enhancement

The results as presented above show an attempt towards measuring the attainment of student learning outcomes for a pre-service teacher education programme, that is, the ELT at UD-UFLS. Direct student achievement data compounded with the indirect results taken from stakeholder surveys have so far revealed their importance as a critical source of evidence necessary for any decision made pertaining to instructional or curricular change towards improved student output.

The results well indicate the positive trends of ELT graduates towards being high performers in most domains prescribed for the programme. As the results show, ELT students in the assessment period (i.e., Cohort 2017-2021) were quite highly achievable in pedagogical and professional domains rather than the ones in linguistic knowledge and intercultural competence. The findings also illuminate that certain aspects of student learning outperform their counterparts in the programme, especially in the outcomes towards lifelong learning, personal and professional development (See **Figure 6**).

This measurement is important as it can well inform an improvement plan made throughout the assessment period. More specifically, decisions were made into the changes made in the mid-assessment period (the 2019 curriculum) with additional credits inserted into the cultural knowledge domain together with language-based projects, which is hoped to scaffold students for achieving higher linguistic and cultural competence. This minor revision in the ELT curriculum has resulted from input indirectly provided by stakeholders as well as some insights gained from the process of making an assessment plan. Importantly also, in the new revised curriculum (the 2022 version), *Communicative English Grammar* has been made a required course together with additional courses in the cultural block like *Cultures of English-Speaking Countries* and *Cultures of ASEAN Countries*, and even more project courses being added. This is hoped to lever the knowledge students gain regarding English language and intercultural competence so that forthcoming students into the ELT can perform even higher, thus increasing the level of attaining of student learning outcomes. Efforts towards measuring

student learning outcomes as presented above show possible gains in combining both direct and indirect ways of gauging the level of attainment of expected student learning of a study programme. This is to shed light to the importance of implementing a constructively aligned curricular design and implementation for continuous improvement of student learning. The results are in line with Harris and Jones (2020) who stress the importance of having accurate assessment results to examine the overall effectiveness of instruction and course design while enabling course designers to plan and adapt course design and instruction.

5. Conclusion

This paper has so far reported an approach towards measuring the student learning outcomes of a pre-service teacher education at UD-UFLS in Vietnam. It has shown continuous attempts towards gauging the level of student performance with evidence collected both directly and indirectly to throw an overall picture of how much and to what extent the programme graduates have achieved the learning outcomes stated via a well-established assessment plan. For this assessment, the triangulation principle has been utilised for setting the performance indicators (PIs) as well as for identifying the assessment data (i.e., courses and student work).

The paper suggests that direct student achievement data can be well manipulated to facilitate better-informed decisions on language instruction and curriculum change apart from periodical collection of stakeholder feedback on the programme objectives, the learning outcomes, the curricular content, and delivery. With various methods of collecting student achievement data and indirect satisfaction results, gaps in the delivery of the courses, course contents and assessment methods can be identified and thus areas of improvement can be suggested for continuous enhancement of student performance. Varying assessment data implicating varying student performance and competence, once well selected and communicated to all stakeholders, especially students, can be highly impactful in the sense that, as Ramsden (2003) points out, students will learn what they think they will be assessed on, rather than just what is in the curriculum. What is critical for teachers as educators is how we can make the assessment tasks mirror the intended learning outcomes, or put another way, how a constructive alignment can be maintained in the whole curriculum. Attempts towards measuring the intended learning outcomes and the significance of the collected data, in both direct and indirect terms, have facilitated well-informed decisions towards curricular changes and delivery. This principle of OBE and initiatives towards continuously improving learning outcome will continue to shed light to endless quality assurance endeavours in higher education sector in Vietnam, and elsewhere in Southeast Asia.

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