

# INTEGRATING HOTS INTO LANGUAGE CLASSES IN THE 21<sup>ST</sup> CENTURY

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## Abstract

In order to provide high quality instruction to learners, teachers need to consider critical thinking as one of their educational goals. To develop higher order thinking skills (HOTS) more room needs to be given to students for them to analyse, evaluate and create. Yet in many language classrooms, examinations are still the dominant mode in evaluating students' performance. This paper will discuss the teaching strategies and approaches that can be adopted in language classrooms to achieve this purpose. The various assessment procedures that can be adopted will also be discussed. The use of appropriate technological tools is also emphasized to suit the needs of the digital natives and digital immigrants. They can be used to improve student engagement in class activities and motivate them to learn. All these call for a change in the teacher's style of teaching to accommodate the changes especially if the aim is to produce learners who are both proficient and critical.

**Keywords:** language proficiency, HOTS, blended-learning

## Introduction

Cognitive or mental activity is one of the three domains of educational activities, apart from affective and psychomotor domains. Critical thinking has been identified as one of the vital 21<sup>st</sup> century skills, and many companies are seeking a workforce that has this skill apart from skills such as problem solving, creativity and communication (Charles and Rice, 2012). Bloom (1956) divided cognitive processes into six categories arranging them from the simplest to the most complex thinking behavior; knowledge, comprehension, application, analysis, synthesis and evaluate. Anderson (2000) revisited the taxonomy and turned the nouns into verbs; remembering, understanding, applying, analyzing, evaluating and creating (Appendix 1). She also rearranges the last two levels of critical thinking putting evaluating before creating.

Zohar and Dori (2003) emphasise the need for teachers to engage in tasks that involve HOTS as they found that the activities could improve their thinking skills irrespective of their level of academic achievement. The ability to think critically is crucial for successful life as the skills are transferrable to different situations. HOTS allows students to reach self-actualisation, a term coined by Abraham Maslow in his hierarchy of needs where students explore their full potential and do or become what they are capable of (Maslow, 1943). Thus, when HOTS are carefully and actively nurtured in classrooms, the learning space then become the right environment to produce citizens with high levels of cognitive skills and become valuable assets for the nation's development.

One of the challenges in developing the above skills is to find an effective instructional approach. Suggestions based on research findings are often sought to find pedagogical approaches that can be adopted in integrating these skills in the lessons taught. However, most of the studies examined a single instructional approach when in reality a number of approaches are needed to make the class engaged and interesting for the whole period of studies (Ku, et al; 2014). To develop HOTS in a language classroom, teachers would not only need to have knowledge of the subject matter, but they also have to know what HOTS consists of and how it can be integrated into the curriculum.

Where language teaching is concerned, we have to consider two things: the teaching of language as a proficiency course and the teaching of language as a degree programme. In both cases, the issue is the same. How to make the students proficient in the language learnt? It is realized that they can learn the basic concepts of the various disciplines on the Internet provided they are proficient enough to understand the texts. But understanding also means that they should have a certain level of critical thinking in order to comprehend those texts.

In Malaysia, the lack of proficiency in the English language is of a major concern to educationists and policy makers. A study conducted on Pre-school up to Grade 13 students found that at Grade 13 they were those who were still at Band A2 of CEFR (Common European Framework of Reference for Languages) though they have done English for 12 years at school. Realizing this problem, a roadmap was introduced by the Malaysian Ministry of Education where the level that students are expected to achieve by the end of every stage of education is clearly spelt out based on CEFR. At the end of primary school, students are expected to achieve Band A2, and at the end of secondary school, they are expected to have achieved at least Band B2. Language majors are expected to have a minimum of C1 level of proficiency. The integration of HOTS is therefore expected to make the teaching of language more effective (Ministry of Education Malaysia, 2015).

The fact is many language teachers are perplexed when asked to integrate HOTS into their lessons. The teaching of language itself is already challenging, and HOTS is yet another issue that teachers need to address. In most cases, teachers are not taught how to integrate HOTS into language teaching. The cognitive processes that have been identified under HOTS are analysis, evaluation and creation of new knowledge.

### **HOTS Assessment**

Teachers are usually more familiar with recall-based assessment. However, if this is the only method used it may not help towards developing students' critical thinking skills. Assessment needs to be aligned with learning objectives and instructional strategies. If the learning outcome is to produce language students who can apply analytical skills, the activities should require them to be analytical. There are many teaching strategies and assessment forms to achieve this end. Ives & Obenchain (2006), for example, have shown that classes that are based on Experiential Education principles promoted HOTS more than the traditional classroom. Activities that lead to the development of critical thinking skills also include conducting case studies, debating and doing project papers. Among other teaching strategies that can be adopted to achieve this end are problem-based learning, task-based, discovery learning and inquiry based learning. In all these cases, language is used in context and for a purpose.

In English classes in Malaysia, one of the basic challenges that teachers face in the classroom is to get students to participate in the class discussion. The exam-oriented system is one of the possible reasons for this lack of motivation. One of the ways to encourage them to talk is to allocate marks for discussions. The teacher must also have the skill to manage a large class if all the students are active. One of the ways of tackling this problem is by adopting the technology.

The fast changing nature of technology creates a learning society by increasing access to education. There is more opportunity for lifelong learning. However, the changes in education are not as fast as the advancement in technology. Among the teachers, there are those who belong to generations X, Y and Z, whereas many of the students are digital natives. The teachers may struggle to use the technology, whereas it is a big part of the student's life.

### Facing Digital Natives

In situations where most of the students are digital natives and digital immigrants, teachers are normally expected to adopt the technology in teaching lest they appear backward in the students' eyes. There are many applications that teachers can use to make the class interesting. Student response system, such as *kahoot*, *socrative* and *clickers* can be used for formative assessment. This helps to make students more engaged in the task given. The activity does not have to be limited to the classroom. The technology can be used to encourage them to continue using the language outside the classroom. For example, when introducing themselves, the technology can help them break the ice in an interesting way. Class time does not have to be spent on this activity.

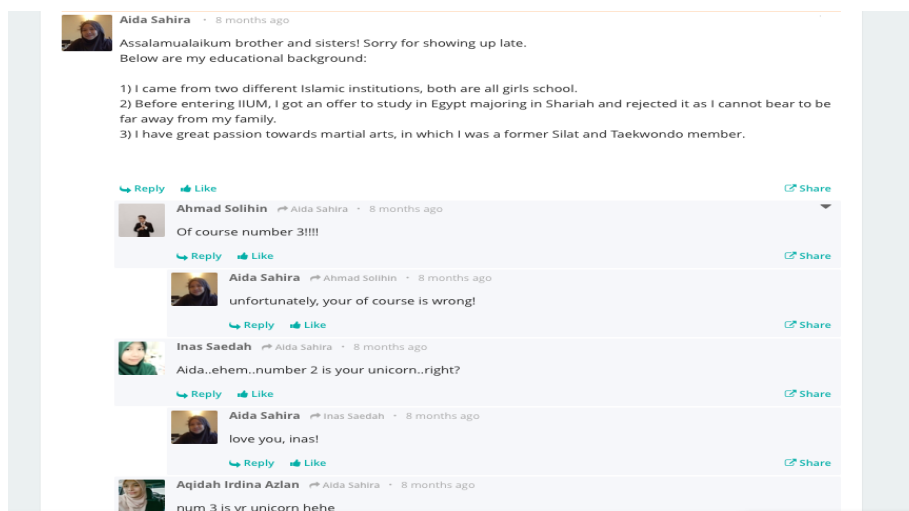


Figure 1: Introducing oneself to classmate

Engagement is an important element if the learning objective is to produce critical thinkers. The technology can be manipulated for this purpose. The online forum can be used to discuss issues. Such a forum makes it possible for the whole class to participate in the discussion. By doing so, they write using the language that they are learning. The questions posed by the teacher would need to be challenging enough to make the students think. Figure 2 is an example of such a discussion:

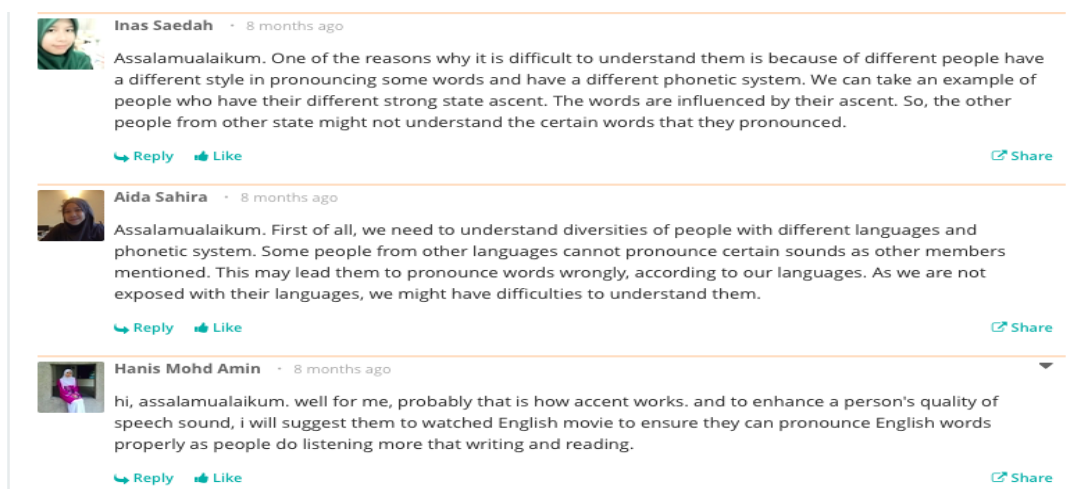


Figure 2: Excerpt from an online forum

The above is taken from first year student discussion on an issue posted by the class instructor. With more practice on issues that require them to think, these students are expected to improve their level of proficiency and critical thinking skills.

The above examples illustrate the adoption of blended approach in teaching. It is a student-centred approach where students and teachers interact in both online and face-to-face environments. However, teachers need to invest their time and creativity to realize these potentials. Innovative teachers can develop engaging blended lessons by embedding online resources in the existing lessons (Charles and Rice, 2012). Such a move can help these teachers revitalize their lessons and improve content delivery.

To get students engaged, more time would need to be devoted to discussions and other activities that require them to think, decide, act and react. A different instructional strategy can be adopted in this case. Flipped classroom is one of the options where instructional content is delivered online before the class session. A Learning Management System (LMS) can be used as the platform for flipped learning. Figure 3 is an excerpt from *Introduction to Linguistics* course that is offered on Malaysian MOOC (Massive Open Online Course). Students can access the materials and the exercises before the class, and spend the class time discussing concepts and issues related to the module. The instructor is to provide support and facilitate the learning process.

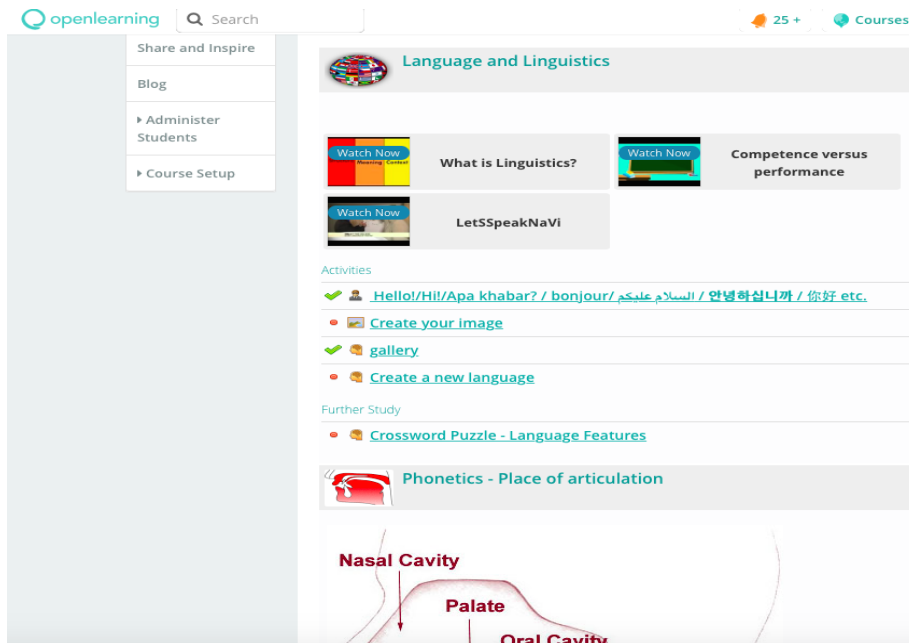
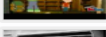





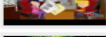



Figure 3: Excerpt from a MOOC course offered by IIUM

The MOOC platform can also be used for discussion not only among the students in the classroom but also with other students who are following the course. This ‘global classroom’ can help the students see a point from many different perspectives. It helps to produce students who are not only more open-minded but also more critical.

The LMS can also be used as the platform for teaching literary appreciation. Figure 4 shows how MOOC is used to help students understand one of the fictions that is used at the Malaysian schools (for Grade 11 students). Pictures and videos related to the story are provided to help students visualize the setting of the story. Questions that are meant to develop students’ critical thinking skills can be posted, and these can be discussed together online.

			during world war II
	War Comes to America		iowa farm life
	Richard showing his poem		Trees by J. Kilmer
	Joyce Kilmer Memorial Forest		Turtle Lake

Activities

- [Places in the Story](#)
- [Describe Joyce Kilmer in 50 words.](#)
- [Why do you think Joyce Kilmer respond to a letter from a fifteen-year-old boy?](#)
- [Discuss the similarities and differences between Richard and Mr. Kilmer.](#)
- [What could be the reasons for his classmates' disapproval of Richard's decision to quit being Doughboy?](#)
- [What was the impact of Richard's first published poem on his father?](#)
- [Would Gus be happy that the war has ended? Give reasons for your answer.](#)

Further Study

- [Write your personal reflection of the story.](#)
- [Video submission](#)

Figure 4: MOOC in teaching fiction

Apart from the above, the social network is also a popular tool of communication among the students and teachers. This includes *Facebook*, *Whatsapp* and *Telegram*. It is largely used to convey messages and to get information. It has proven to be an effective means of communication for project-based assignments and tasks that involve group work. Such an environment helps to promote collaborative learning and enhances critical thinking.

### Conclusion

To ensure that the learning objectives of the course are achieved, teachers' concern should not only be on finishing the syllabus. They need to be clear of the target of the lesson, and have the awareness of approaches that suit students' learning styles. There are many strategies that can be adopted to produce students who are proficient in the language and critical at the same time. The technology is to be used to enhance teaching and learning.

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## Appendix One

Table 2: Revised Categories of The Cognitive Domain

BLOOM	ANDERSON
Knowledge	<p><b>Remembering</b>  <b>Examples:</b> Using memory to produce definitions, facts, or lists, or recite or retrieve material.  <b>Key Words:</b> retrieving, recalling, recognising knowledge from memory.</p>
Comprehension	<p><b>Understanding</b>  <b>Examples:</b> Constructing meaning from different types of functions, be they written or graphic messages  <b>Key Words:</b> interpreting, exemplifying, classifying, summarising, inferring, comparing, and explaining.</p>
Application	<p><b>Applying</b>  <b>Examples:</b> Applying related information and skills and referring to situations where learned material is used through products like models, presentations, interviews or simulations.  <b>Key Words:</b> executing, implementing.</p>
Analysis	<p><b>Analysing</b>  <b>Examples:</b> Breaking material or concepts into parts, determining how the parts relate or interrelate to one another or to an overall structure or purpose. Creating spreadsheets, surveys, charts, diagrams, or graphic representations can represent analysing.  <b>Key Words:</b> differentiating, organising, attributing, as well as being able to distinguish between the components or parts.</p>
Synthesis	<p><b>Evaluating</b>  <b>Examples:</b> Critiques, recommendations, and reports are some of the products that can be created to demonstrate the processes of evaluation.  <b>Key Words:</b> checking, critiquing</p> <p>In Anderson's taxonomy evaluation comes before creating, as it is often a necessary part of the precursory behaviour before creating something.</p>
Evaluation	<p><b>Creating</b>  <b>Examples:</b> Creating requires users to put parts together in a new way or synthesise parts into something new and different to form a coherent or functional whole.  <b>Key Words:</b> reorganising, generating, planning, producing</p> <p>Creating is 'synthesis' on Bloom's Taxonomy</p>

(adopted from Collins (2014))