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# A MOOC for Literature Integrated Language Classroom: Pedagogical Suggestions for the Development of Higher Order Thinking Skills (HOTS)

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**Abstract:**
An important component of language teaching is the development of higher order thinking skills (HOTS) among the students. In some language classes, this is done in the literature component of the curriculum. However, in many circumstances teachers are not trained on how to integrate critical thinking skills in literature integrated language learning classes. Training teachers nationwide can be costly to a country if the traditional way of in-service training is adopted. One of the ways to address this problem is by providing online training programmes. A viable alternative platform for online engagement is the Massive Open Online Course (MOOC) which has the potential to reach the mass. A training module would have to take into consideration the fact that different schools could be using different literary texts. Hence, the training module for teachers would need to focus on activities or pedagogical approaches rather than the text itself. This paper will focus on the aspects to consider when developing a MOOC for this purpose. This study will focus on Malaysian teachers who are expected to integrate HOTS into their literature lessons. When developing the materials, two important aspects that need to be considered are the components of HOTS and also the approaches that can be adopted. This paper discusses the approaches that can be applied to develop a specific aspect of HOTS. It focuses on the Malaysian teachers who are expected to integrate HOTS into their literature lessons.

***Keywords***: fiction, higher order thinking skills, HOTS, literature, MOOC, pedagogy
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## Introduction

In the past, rote learning which stresses on memorisation of information was widely used by teachers. The traditional didactic transmission teaching method was a popular method of instruction. Learning activities were teacher-centred and students were passive recipient of knowledge. However, recent curriculum has shifted to approaches emphasising meaningful learning through active, constructive and long-lasting learning experiences (DeWaelsche, 2015; Vallori, 2014; O'Sullivan & Guo, 2010). Teachers are now expected to facilitate students' development of Higher Order Thinking Skills (HOTS).

HOTS, which include critical, logical, reflective, metacognitive, and creative thinking (King, Goodson & Rohani, 1997) have been associated with the key areas of development for 21st century education (Greenhill, 2010). The cultivation of HOTS is also expected and seen relevant in English as a second language subject (Abdul Aziz, Ismail, Ibrahim & Abdul Samat, 2017; Collins, 2014; Mohamad Ali, 2013). One possibility where HOTS can be developed in a language course or subject is through literature integrated language lessons. Many aspects of the content of a literary work can make the readers think. Literary works normally allow rooms for interpretation, and this can help in the development of students' thinking skills. However, many teachers focus purely on literary components rather than HOTS development. This could be due to either their absence of awareness of the possibility of developing HOTS through literature, or their lack of ideas on how best to incorporate it into their lessons.

Apart from the know-how, the students' level of proficiency is yet another problem that second language teachers have to face when integrating literature in their language lessons. The language used in such texts can be daunting to some of the learners especially those who are still struggling to master the language. Hence the focus may be more on making them understand the text than interpreting it. This paper presents pedagogical approaches that can be used by language teachers to develop and promote HOTS in a literature integrated language classroom, specifically through a massive open online course or MOOC.

## Problem Statement

It has been argued that literature can help to develop students' critical thinking skills (Hayes, 1990; Mat Daud & Husin, 2004; Tung & Chaing, 2009). Past studies on the integration of HOTS particularly in the teaching of English language focus mostly on the potential of individual teaching approach to promote critical thinking skills (see June, Yaacob & Kheng, 2014; Mat Daud & Hussin, 2004; Mat Daud, Gilmore & Mayo, 2013). A study by Sidhu, Chan and Kaur (2010) finds that Malaysian primary teachers teaching fiction lacked creativity as far as organising learning tasks was concerned. Mahyuddin et al. (2004) conducted a survey on 387 secondary school students and found that teachers who went through a course on thinking skills taught students to use inferencing and other thinking skills such as comparing and contrasting, and detecting cause and effect. Nonetheless, there was a need for improvement in terms of making the teaching of critical thinking skills more explicit.

The issue is how to make interactive teaching resources easily accessible to teachers. There are resources such as the suggestions given by Hayes (1990) and the one developed by the National Research Centre on English Learning & Achievement University at Albany (n.d.).

However, the suggestions given do not allow users to be more engaged in the learning process and are not interactive in nature. Hence, MOOC particularly OpenLearning that provides this learning experience is chosen as a platform to share pedagogical approaches with the teachers.

**Critical Thinking Development**

Critical thinking is associated with a deep approach to learning (Gadzella & Masten, 1998; Reason et al., 2010). Therefore, there is a need to investigate how classroom activities can be adapted to encourage deep learning. Bailin et al. (1999) argue that "critical thinking is not promoted simply through the repetition of 'skills' of thinking, but rather by developing the relevant knowledge, commitments and strategies and, above all, by coming to understand what criteria and standards are relevant" (p. 280). Dede (1990) states that HOTS for structured inquiry are best acquired through fundamental steps which include constructing and reconstructing knowledge, using sophisticated information-gathering tools to stimulate students' experience, focussing on testing hypotheses rather than just following the narratives, and collaborating with peers. According to Collins (2014), whilst Bloom's Taxonomy is not the only model to teach thinking, it is extensively used by educators across the globe. In addition, in order to inculcate HOTS, it is argued that all domains in the taxonomy, including cognitive, affective and psychomotor, must be fully utilised to assist students in developing critical thinking skills.

**MOOC on Integrating HOTS into The Curriculum**

The facilities on MOOC can make learning fun not only the students but the teachers as well. To make it easy for teachers to follow the learning activities, the content of the course has to be based on a certain literary text. In this case, the five fictions that have been chosen by the Malaysian Ministry of Education are included in the main menu to make it easy for teachers to choose the one that is relevant to their needs. Figure 1 shows a screenshot of the homepage. Short videos are uploaded and exercises are given for both students and teachers to attempt. The videos can help them to understand the story better.


*Figure 1*: Homepage for Integrating HOTs into Literature Curriculum

The five fictions that are used in the Malaysian secondary schools are *Captain Nobody, Dear Mr. Kilmer, Sing to the Dawn, Leaving No Footprints* and *Changing Their Skies*. Certain states in Malaysia are assigned a specific book to use but they are also free to utilise other books (among the five listed) in their classroom. All the books are listed in the main menu to make it easy for the teachers to choose the text and also the activities based on the text. The next thing to consider is the HOTS components that will be focussed on. In this MOOC, the focus is on

higher order thinking skills namely analyse, evaluate and create. These skills were identified based on the revised edition of the higher order thinking skills of Bloom's cognitive domain taxonomy by Anderson, Krathwohl & Airasian (2001). The activities for each fiction are organised based on HOTS as shown in Figure 2.

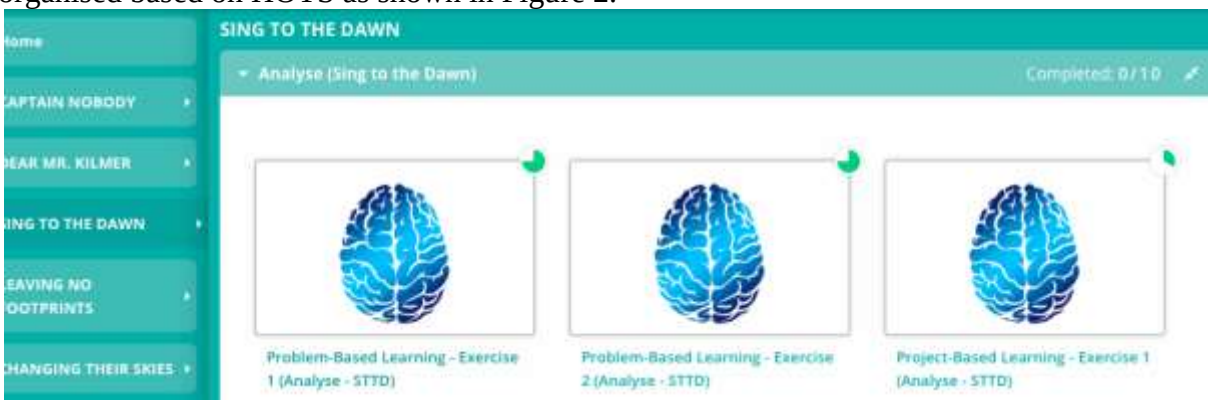


*Figure 2:* Sample of Content Page According to HOTS Skills (Analyse) on MOOC

As illustrated by Figure 2, different activities were designed for each skill based on pedagogical approaches that help promote HOTS including problem-based learning, self-reflection, peer assessment and collaborative learning. Some of the teaching activities that can be considered for practice in the classroom are elaborated below.

**Teaching Activities to Promote HOTS**

***Problem-Based Learning (PBL)***

Problem-Based Learning (PBL) engages students to work together to solve real-world problems, especially everyday challenges in schools and communities (Hmelo & Evenson, 2000; Savin-Baden & Wilkie, 2004). Successful problem-solving encourages students to apply knowledge from several disciplines to solve issues in a very practical way.

According to Hung, Jonassen and Liu (2008), PBL is perhaps the most innovative pedagogical method ever implemented in education. Since students 'learn by doing' by solving real-life issues, the impact of learning becomes the motivation for learning. At the same time, students develop various skills since the activities engage students, enhance retention and help establish social skills as they work as a team. It is also one of the best educational approaches to inculcate HOTS (Hung, Jonassen & Liu, 2008). A sample of a PBL activity is displayed in Figure 3.

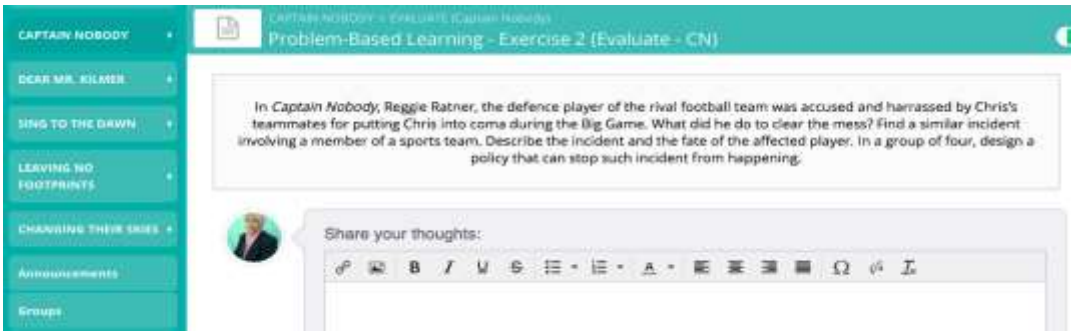


*Figure 3*: Sample of a Problem-Based Learning Activity on MOOC


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***Project-Based Learning***

Project-based learning integrates knowing and doing (Markham, 2011). Projects allow students to engage in an authentic interaction in a specific context (Greeno, 2006). Project-based learning is based on constructivist approach which helps the students to gain a deeper understanding of the concepts learnt (Krajcik and Blumenfeld (2006). Studies have shown that students in project-based classrooms performed better than students in traditional classrooms (Marx et al., 2004; Rivet & Krajcik, 2004).

Many instructors confuse PBL with project-based learning. The key difference between these two is that PBL requires students to provide solutions to a real-world problem, and project-based learning requires students to come out with a project in order to stimulate and solve the given problem. Figure 4 demonstrates how project-based activities can be initiated in a literature-integrated language classroom.

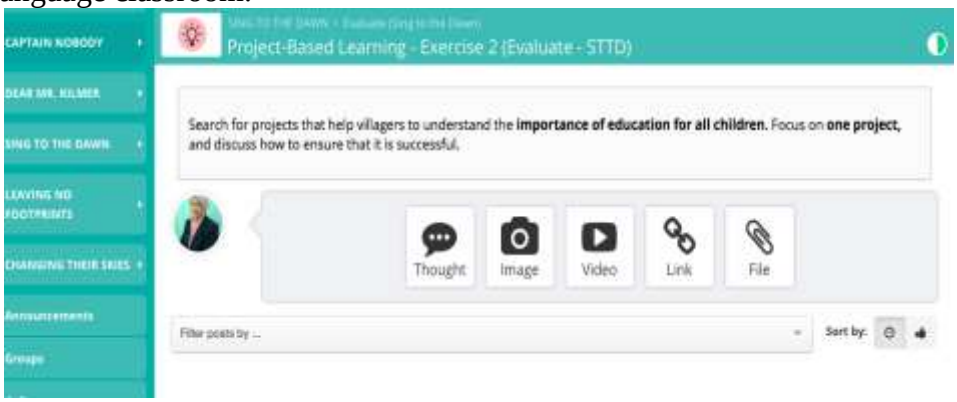


*Figure 4*: Sample of Project-Based Learning Activity on MOOC

***Task-Based Learning (TBL)***

In a language classroom, task-based lessons focus on the language required to complete a task. It is based on the assumption that aspects of language will be learnt as students perform a task. This provides the learners an opportunity to use the language in a meaningful way. Using the language in real life situations will help the students develop communicative competence (Krahnke,1987). Unlike the traditional method, TBL does not focus on forms and structures. Instead the four skills are integrated in completing a task. However, attention is still paid to language accuracy. Language structures are learned through induction as they solve the given task (Ramirez, 1995). The example is shown in Figure 5.

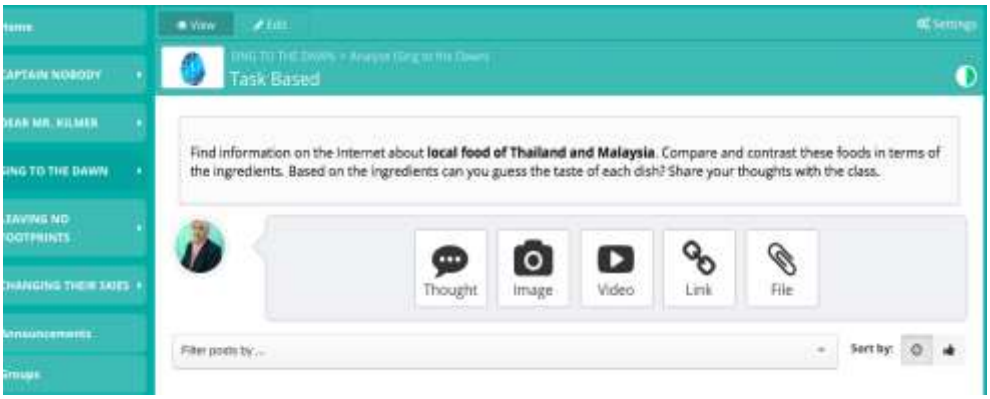


*Figure 5*: Sample of Task-Based Learning Activity on MOOC

***Discovery Learning***

In discovery learning, students are immersed in the experience or learnt the skill before it is actually taught (Bicknell-Holmes & Hoffman, 2000). This teaching strategy makes learning fun by giving learners the chance to seek information based on their own curiosity (Schank & Cleary, 1995). This way, they hone their skills as they discover newer or better ways to accomplish a task or an activity through trial and error.

Discovery learning requires the learners to question and reflect upon a problem. Learners can feel frustrated if their questions lead to nowhere. This leads to the development of their questioning skills (Schank & Cleary, 1995). Discovery learning, like most constructivist instructional design models is not easy to implement since learners need to possess a number of cognitive skills and be naturally motivated to learn. Figure 6 demonstrates the example of discovery learning activity incorporated in the MOOC that was developed in this study.

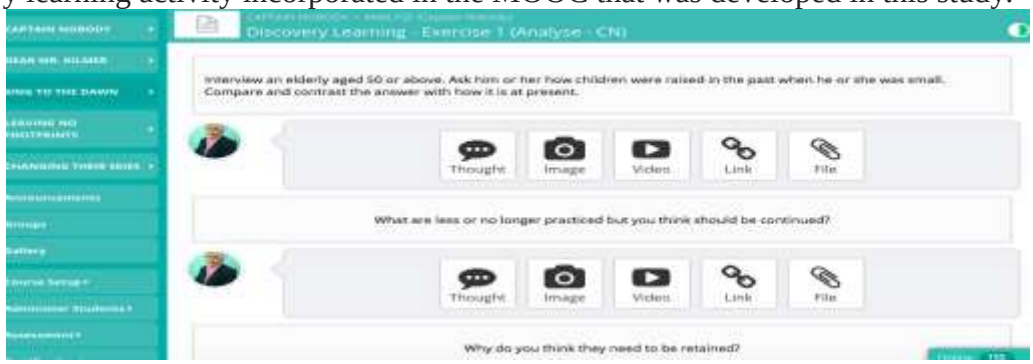


*Figure 6*: Sample of Discovery Learning Activity on MOOC

***Peer Assessment***

Peer assessment is an assessment process in which fellow students assess their peers' work based on a benchmark set by the teachers. Peer assessment allows teachers to empower learners with knowledge of how to assess their peers' work using standardised rubrics. It gives learners the responsibility to develop a critical mind on evaluating their peers work in an objective manner.

Unlike in a traditional approach, peer assessment gives learners the autonomy to participate in the assessment process. Learners will assess their peers based on the rubric prepared by the

teacher. The rubric focuses on the core aspect of the activity including content, presentation and language.

The main challenge to this approach is to train the learners to be objective about their peers' performance. However, once the learners are given the right guidance, this approach can create a "culture of critique" (Saddler & Andrade, 2004) among learners, allowing them to be able to evaluate their peers' work and provide constructive criticisms. Figure 7 is a sample of a peer assessment activity.

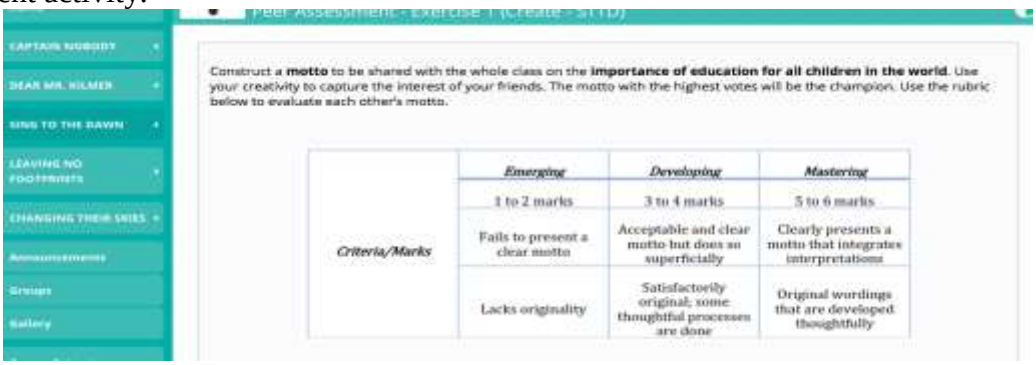


*Figure 7*: Sample of Peer Assessment Activity on MOOC

***Collaborative Learning (CLL)***

Collaborative learning allows for critical thinking development as students explore, reflect upon and reply to the varied responses to issues which are fundamental for the promotion of deep learning (Gokhale, 1995). Learning is less controlled and structured by the teacher, thus it empowers students in the learning process.

In collaborative learning environment, students actively work together to build knowledge rather than compete with each other individually. They have more control over what is to be learnt as they explore topics to construct knowledge and develop skills unlike the traditional approaches, which restrict learning to what the teacher exposes the students to (Terenzini et al., 2001). Figure 8 displays a screen shot of one of the activities that involves collaborative learning on the MOOC platform that was developed in this study:

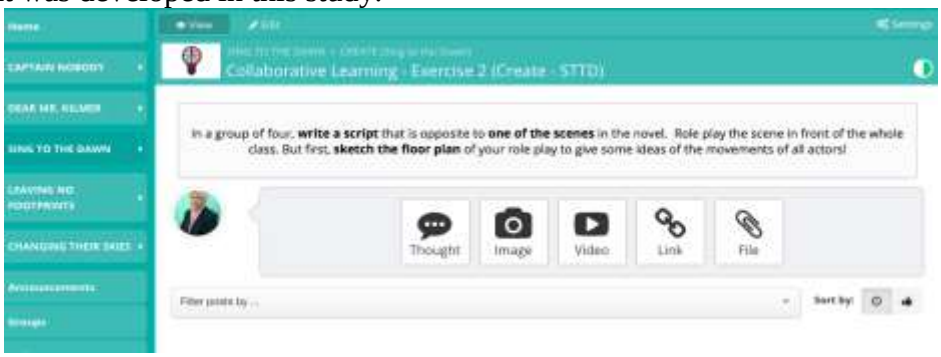


*Figure 8*: Sample of Collaborative Learning Activity on MOOC

***Self-Reflection***

Self-reflection is a learning approach which trains learners to be critical over their individual learning experience. Self-reflection encourages a learner to evaluate his/her ability to learn, relearn and unlearn any topic. This approach complements other educational approaches including problem-based approach. In doing a self-reflection approach, the learners experience a deeper level of understanding. The learner also acquires a deeper recognition of his/her capabilities and as such become an active member of the learning process. This is illustrated by Figure 9 below:

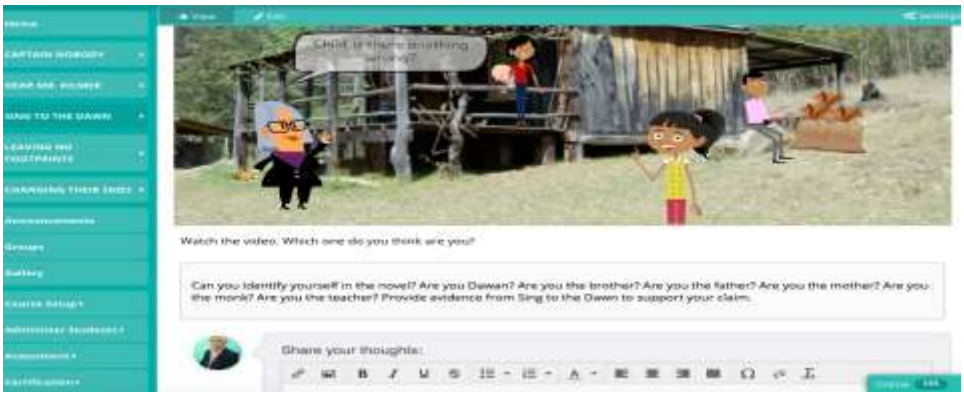


*Figure 9*. Sample of Self-Reflection Activity on MOOC

## Conclusion

An integrative learning module can help teachers to *learn, unlearn* and *relearn* using available technology. A MOCC not only provides the platform for learning but also helps teachers to keep abreast with the latest development in education. The MOOC on Developing HOTS in Literature Integrated Language Classroom gives ideas on the activities that can be conducted when teaching fiction. It highlights that each approach has its strength, and each one contributes to the development of students' critical thinking skills. The adoption of these activities can make the class more lively, and will give students the opportunity to use the language in a more meaningful way.

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