Promoting Higher Order Thinking Skills in Literature Class via Critical Thinking Module (CTM)

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Abstract:
Advancement in the innovation world, robotics and artificial intelligence as well as heavily globally-connected world among others has led to the impetus of Industrial Revolution (IR 4.0). Hence, work opportunities that exist today might not be available in the future as there is a huge possibility that they might be taken over by machines. This could result in job scarcity. Therefore, the challenge now is to prepare our students with the necessary skills to stay relevant and needed in the job market of the future. The ability to think on the higher level is amplified with IR 4.0. So, it is only wise to teach, train and prepare the students with this skill now. This paper shares the findings of a larger study on how the Critical Thinking Module (CTM) is able to assist higher order thinking (HOTs) among the students in Literature Classes. This research employs case study method and the subjects were selected using purposive sampling. The CTM focuses on the students’ ability to analyse, synthesise and evaluate. The activities included in CTM are everyday activities that will be able to be carried out in an hour and ten minutes period. All of the activities are student-centered and highlight on the importance of group work whereby discussion, collaboration and cooperation are vital. Data were gathered through test scripts and class observation. The participants were 9 students from a cluster school in Ipoh. They were observed for 18 weeks and the result of the study revealed that the students were better at HOTs verbally compared to written. The case study suggests the CTM is capable of aiding the students to think on the higher level.

Keyword: Critical thinking module; higher order thinking skills; verbal HOTs; written HOTs; 21st century teaching skills
1. Introduction

21st century learning brings with it inevitable transformation in teaching and learning which highlights the importance of HOTs in order to be globally competitive. Hence, education reforms took place and this result in the formulation of Malaysian Education Blueprint (PPPM). PPPM enlisted 6 traits to enable the students to thrive within the changing society of the future. They are; critical thinking and innovation, leadership quality, bilingualism, values and personality as well as nationality (MOE, 2012). To further assist the effectiveness of teaching and learning in the 21st century, myriad of teaching tools and modules are introduced to teachers. To illustrate MAPPA 21, i-Think maps, Virtual Learning Environment (VLE) and differentiation strategy.

21st century teaching emphasises on student-centered learning, collaborative learning, skill based, HOT practical, group based, community based, formative assessment and life-long learning. But a study on Form Four Science students in rural and urban areas in Selangor showed that their critical thinking is at an average level (Nor Hasnida et. al., 2008) while Malaysia Technical Universities Network (MTUN) discovered that their students’ critical thinking ability do not reach the global standard of critical thinking warranted by Insight Association California (Aziz Yahya et. al., 2011).

One of the contributing factors that make the teaching and learning of HOTs difficult is the passive culture engulfing the students. An ideal classroom should be meaningful noisy filled with the acts of asking and answering questions, giving opinions, agreeing and disagreeing, laughing and engaging in class activities. Unfortunately researches showed that this is not encouraged in Asian classrooms. To these days, many classrooms are still teacher-centred (Tan & Arshad, 2011) as it helps to produce good and desirable results (Toh, 2003) among the students. The students who persist in asking a lot of questions, talk back or argue are seen as being outspoken, rude and disrespectful of the elders (Hooks, 2010). Consequently students questioning is found to be at an average of 2.6 % (Zamri & Lim, 2011). Even varsity undergraduates are found to be reserved (Fung, 2010). Thus, they find engaging in class discussion, oral presentations and oral argumentation arduous. On the contrary, the west value independence and competitiveness (Faizah, 2008), autonomous, in control and productive (Merriam & Mohammad, 2000).

Despite the number of excellent teachers in schools most lessons still continue to concentrate on the teaching of content understanding (MOE, 2012). A study on 100 teachers from both primary and secondary schools revealed that only 47% attended HOTs workshops and courses (Sivapakkiam et. al., 2016). As a result, these teachers face difficulties incorporating HOTs into their classroom and impart the skills to the students (Sukiman et. al., 2013 & Othman & Mohamad 2014). Sadly, some teachers think that they are integrating HOTs in their lessons but in actual fact they utilise lower order questions that rely heavily on the students’ memory and comprehension of the subject matter (Choy & Cheah, 2009). The lack of understanding and knowledge as well as the skills that embody HOTs is an issue among the teachers (Hashim, 2004). In braving the changes and demands of the current teaching world teachers need to constantly be aware of numerous teaching strategies available. This is paramount as the students have diverse needs, learning ability, interest and
motivation. A one size fits all teaching strategy is no longer relevant nor is it fair for the students. Therefore, teachers have to evolve with the change of time.

2. Critical Thinking Module (CTM)

CTM is a module that contains a short story entitled ‘Mariah’ by Che Husna Azhari, a Malaysian writer. This is complemented with five lesson plans designed to teach plot, setting, themes, moral values and characters. Each lesson plan is designed for 1 hour and 10 minutes. To complement the lesson plans, there are teaching aids, in-class activities, follow up activities and tests questions.

CTM used a short story entitled, ‘Mariah’ by Che Husna Azhari. The short story is about a beautiful widow named Mariah who attracts the attention of the menfolk. This becomes a concern among the women. Her resemblance to Tuk Imam’s former youth love motivates Tuk Imam to ask for Mariah’s hand although he already has a nearly perfect wife. The only flaw in the Iman’s blissful marriage to Cik Yam, his first wife, is the absence of a child. With Cik Yam’s blessing, Tuk Imam and Mariah got married.

3. Research Methods

One of the research questions that govern this case study is to determine how CTM enhance the students’ ability to analyse, synthesise and evaluate. In order to find the answer to the research question, 9 Form Four Science streamed students from a cluster school in Kinta Utara were chosen as the subjects. The subjects were Malay and they resided from all over Perak with various social economic backgrounds. For the purpose of this case study, the subjects were placed in the same class after school for one hour and ten minutes for 18 weeks. Each class was video recorded and classroom interaction was transcribed. At the end of the 18 week, the subjects sat for 3 tests; test 1 was on analysis, test 2 was on synthesis and test 3 on evaluation.

4. Results

Analysis of all 3 test scripts test using the holistic Scoring Rubric by Facione & Facione (2009) found that the subjects were better at synthesis and evaluation skills compared to analysis skills.

<table>
<thead>
<tr>
<th>Subject</th>
<th>Analysis</th>
<th>Synthesis</th>
<th>Evaluation</th>
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<tbody>
<tr>
<td>1</td>
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<td>9</td>
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Table 1.1: Summary of higher order thinking skills development
To illustrate, take Subject 1 test scripts for example.

Test script 1

<table>
<thead>
<tr>
<th>Evidences of analysis skill</th>
<th>Skill(s) used</th>
</tr>
</thead>
<tbody>
<tr>
<td>Question 1 : Assuming Mariah turns down Tuk Imam’s proposal. What do you think Tuk Imam will do? Why?</td>
<td>Examine + Explain</td>
</tr>
<tr>
<td>I think if Mariah turn down the proposal, Tuk Imam will try again. It because Tuk Imam really want Mariah to be his wife. If he couldn’t get Mariah he will be really sinful because he keep thinking about her.</td>
<td>Examine + Explain</td>
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</table>

Test script 2

<table>
<thead>
<tr>
<th>Evidences of synthesis skill</th>
<th>Skill used</th>
</tr>
</thead>
<tbody>
<tr>
<td>Question 1 : Looking at Cik Gu Nab’s character and personality, how do you think her life will be in the future?</td>
<td>Categorise</td>
</tr>
<tr>
<td>Cik Gu Nab’s character is jealous woman. Because of her jealous, she maybe can be hate by the villagers. It is because if somebody seems to be close with Cik Gu Nab’s husband she may jealous even she didn’t know the actual reasons. Cik Gu Nab she will be devoted by her husband in the future. It is because she didn’t know to cook even a fry egg. As a woman, she should know how to cook. So her husband will love her more and didn’t eat at any foodstalls. Cik Gu Nab will not get into Jannah. It is because she is really like to accuse people without the evidence or the witness. The sin for the accuser is very big more than a killer. She will be rewarding with Jahannam.</td>
<td>Predict</td>
</tr>
</tbody>
</table>

Test script 3

<table>
<thead>
<tr>
<th>Evidences of evaluation skill</th>
<th>Skill used</th>
</tr>
</thead>
<tbody>
<tr>
<td>Question 1 : In your opinion, was Tuk Imam’s argument to take another wife convincing? Explain your answer in details.</td>
<td>Explain</td>
</tr>
<tr>
<td>The Tuk Imam’s argument to take another wife is because they did not have any child. In my opinion, Tuk Imam’s argument to take another wife is really not convincing. This is because, they still didn’t confirm who is actually had the problem to get child. Furthermore, they have live together without children for several years. So, it is not the problem to live without any child. Then, I think the argument is not convincing. This is because it doesn’t mean Mariah also can give them child. Before she married with Tuk Imam, she had already married and became a widow. However, she didn’t get child with her late husband. So, it couldn’t be the strong reason for Tuk Imam to marry Mariah. Tuk Imam is seems like desperate and use that point as reasons. Tuk Imam seems like to pretend the actual reasons which is he is actually crazy of Mariah.</td>
<td>Opinion</td>
</tr>
</tbody>
</table>

Subject 1 test scripts shows how his higher order thinking ability evolves in length, depth, complexity and confidence with every test that he sat for. In answering the analysis question (test script 1) Subject 1 presented a brief and straight to the point
answer to the analysis question assigned. He started by examining the situation given followed by an explanation or two. Looking at the answer, not much active analysis is done in answering the question.

However, his thought processes magnified whereby he moved from merely examining and explaining to more complex processes such as predicting and justifying his opinions in test script 2. The justification he proposed was in relation to the inference he made based on his understanding of the short story Mariah. His answer script demonstrates his ability to observe and understand Cik Gu Nab character logically and reflectively. There were also instances in his answers when he based his thoughts and opinions on his knowledge of Islam. His understanding of Islam and the fact that the character Cik Gu Nab is Muslim helped him to understand the consequences of the character’s action of slandering. Hence he concluded his answer with the statement ‘Cik Gu Nab will not get into Jannah. It is because she is really like to accuse people without the evidence or the witness. The sin for the accuser is very big more than a killer. She will be rewarding with Jahannam.’

In attempting to answer the evaluation question (test script 3), Subject 1 put forward his opinion clearly, convincingly and confidently. Subject 1 was able to think rationally of the issue that is plaguing Tuk Imam’s marriage. From his understanding of the short story, he understood the unspoken reason Tuk Imam yearns to tie the knot with Mariah. Subject 1 could sense that it is not so much of Tuk Imam wanting to have a child but more of his desire to have another wife that resembles the love that he failed to get during his youth. His justification for his answer that was well thought, well reasoned and well weight after evaluating the evidences available in the short story, Mariah. This is evidenced when he said ‘This is because, they still didn’t confirm who is actually had the problem to get child. Furthermore, they have live together without children for several years. So, it is not the problem to live without any child. Another reason Subject 1 put forward was ‘Before she married with Tuk Imam, she had already married and became a widow. However, she didn’t get child with her late husband.’

Excerpts 1 and 2 below are transcripts of the subjects’ in-class discussion of the short story, Mariah.

**Excerpt 1**
Subject 7 : First I want to talk about the colour red because of two reasons. One because red is symbolic of love. Right. So people will know this story is about love. Red is symbolic of faith. Because faith same like the blood. As well pain at the same time. This is Tuk Imam and this is Mariah [pointing to the two black figures]. I … I colour them black for two reason. First to me this is a sad story. When we colour it black at first time we know it show sadness. Sadness. I colour it black. As we can see, there’s a road here. Actually, I do not know what to do and then I draw a road to show the story is about perjalanan.

The class : journey
Subject 7: of both of them and her [pointing to the picture of Cik Yam]. Then, [pointing the the picture of a mosque]

The class: mosque

Subject 7: I draw mosque because to show something about mosque which is about polygamy. Polygamy is involved with Islam. So I draw mosque as a symbolic of Islam. And then, as you can see this is Cik Yam. Cik Yam is a sad face. I want to show her sad not her happy because if I Cik Yam in this story I feel sad and I get the payung.

Teacher: Even though you get the payung, you’re still sad.

Subject 7: Ya… because we are in the real world.

Teacher: Which is true. Yes.

Subject 7: As you can see there’s a red [actually black shadow] here, even though there’s red stroke but it shows she is so sad. She’s so sad. She’s terpinggir.

Teacher: Alienated.

Subject 7: Eee… alienated [students laughing] but both of them [pointing to Tuk Imam and Cik Yam] is showing that she’s something in the story. She is eee…

Teacher: What is eee…

Subject 7: Something that is more sad, more sad… more sadness. There’s something about both of them with her. So, it is Mariah. Eee… not done yet. You cannot see. If you come here you can see. There blood in Mariah [the title is outlined with red smudged] aahh… to show it’s not fun story.

Subject 1 & 3: Horror.

Subject 7: Not horror, it’s thrilling. One choice to take. To me la one choice to take because Tuk Imam has to choice

Subject 8: choose

Subject 7: Has to choose between Cik Yam and Mariah.

In excerpt 1 Subject 7 shared and explained the book cover she drew for the short story Mariah. From her explanation of the book cover, it could be seen how she was actively analyzing, assessing, synthesizing, evaluating and reflecting on information that she retrieved from her reading and understanding of the story and probably self-experience of similar issue. This could be seen from the detail and intricate explanation of her drawing. From her explanation it illustrates her understanding of the short story, the conflicts, the issues and her opinion is well thought and well justified.

Excerpt 2

Teacher: You kill Cik Yam? Why?
Subject 9: We want a sharper climax. To us love is full of lust instead of real feelings. In the end only true love can tore a frozen heart. We also want to show that some people nowadays do not appreciate true love around them.

Teacher: What was your first point just now Subject 9?

Subject 9: love can turn out to be full of lust.

Teacher: Ya… love can be camouflaged by lust. What is lust?

Some of the girls: Nafsu

Teacher: Is that what Tuk Imam is facing? Is it love ‘love’ towards Mariah or is it lust

The subjects: Lust

Teacher: Why?

Subject 8: Because when we read the part when he flash back of his younger age when he fell in love with Mariah [Syeikh’s daughter] he didn’t fell in love with her grace or attitude but fell in love with her fairness, her skin, her complexion instead of knowing who she really is. She can be a Syeikh’s daughter but she can be a tutttt [censored] act like a you know…

Teacher: Are you saying that Tuk Imam can’t control his lust?

Subject 9: Probably

Teacher: But he’s an Imam.

Subject 8: But he’s a human being teacher.

In excerpt 2 the subjects work in group and discussed an event from the text that they had to reconstruct from the point of view of a young and educated woman / man. The group chose the event when Tuk Imam asks for Cik Yam’s permission to remarry the short story. The subjects were critical in their thought especially when they managed to analyse Tuk Imam’s feelings for Mariah and concluded that he was overwhelmed by lust rather than love. Their justification of this statement was relevant and accurate based on the inference made of the textual evidence available. Subject 8 even put forward her personal opinion of the female character discussed when she said ‘She can be a Syeikh’s daughter but she can be a tutttt [censored] act like a you know…’ Although Subject 8 opinion seemed emotional but it showed her understanding of human nature. Subject 8 understanding of human nature is further exemplified when she stressed that a person’s position in the society does not guarantee his character. This can be seen when she said: Teacher: Are you saying that Tuk Imam can’t control his lust? /Subject 9: Probably / Teacher: But he’s an Imam. /Subject 8: But he’s a human being teacher.

Despite the improvement that can be seen in the case study subjects’ test scripts, analysis of the comparison between the subjects’ test scripts and transcripts of the in-class and follow up lessons show that the subjects were better at HOTs when they were asked to discuss the issues raised in class as opposed to when they answered the
test questions. The evidenced listed showed when the students shared their thoughts and opinions orally, they are more in-depth, more critical, better elaborated and justified.

5. Discussion

The subjects were found to be more critical in their thinking when they express themselves orally as compared to when they write their thoughts during the test. Why is this so? A study carried out by Lim (2013) analysing English classrooms in three Malaysian schools: National School, National Chinese Type School, and National Tamil Type School found that writing is taught at surface level. Whereas Dixon et. al. (2005) indicated that writing is the best platform to practice higher order thinking as the recursive nature of writing permits the students to move back and forth in their writing to either add, refine or delete and thoughts and ideas freely. Unfortunately, Lim’s study showed that the students were asked to copy sentences written on the board or write a housewarming letter.

At present, although the students are expected and taught to do writing task in Paper 1 for SPM but most teachers have formulate a strategy to help their students to survive the paper. Most are inclined towards narrative essay whereby the students have been working and refining several plots to be used and fit into the exam question. In formatted essays, the points are given and the students are merely expected to use the points correctly. On the contrary, CTM test requires the subjects to read, understand and analyse the question. They are expected to think of possible answers, justify their point of view and at the same time make sure that they do not do injustice to the short story they have learnt.

With the subjects being of intermediate proficiency writing is a challenge. According to Berman & Chang (2010) productive skills namely writing and speaking are found to be challenging compared to listening and reading. This is further illustrated by other issues such as insufficient vocabulary (Rabab’ah, 2003) to express oneself, inability to apply correct sentence structure (Darus & Subramaniam, 2009) as well as frequent errors in tenses, subject verb agreement, prepositions and mechanics of writing (Darus & Ching, 2009). With such obstacles, no wonder only 55.55% of the case study subjects feel that the answers they put forward are critical. How are the subjects to confidently put forward critical point of view when they are deprived of good English acquisition?

In the table below, Hiew (2012) listed the problems students’ faced in completing a writing task and the reasons such problems occur.

<table>
<thead>
<tr>
<th>Problems</th>
<th>Reasons</th>
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</thead>
<tbody>
<tr>
<td>Required longer period to write an essay.</td>
<td>Pre-writing stage: Difficulty procuring ideas to write essay outlines.</td>
</tr>
<tr>
<td>Not familiar with the topics.</td>
<td>Writing stage: Mentally construct sentences in mother tongue before translating into English Constantly referring to English and bilingual dictionaries, and online translator.</td>
</tr>
</tbody>
</table>
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<table>
<thead>
<tr>
<th>Revising stage:</th>
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<tbody>
<tr>
<td>To ensure sentences were grammatically correct and comprehensible.</td>
<td></td>
</tr>
<tr>
<td>To ensure ideas, sentences and paragraphs were arranged coherently and cohesive.</td>
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</table>

- Difficulty in writing academic essays.
  - Need to synthesis, paraphrase and cite various sources.
  - Not exposed to academic writing in secondary school.

There are similarity between the problems Hiew highlights and the subjects’ test scripts. For example, the scripts below are examples of issues the subjects’ faced in putting their thoughts on paper:

...If Tuk Imam having an adopted child, the problems settle without hurt any feeling. The second reason was to excused from make sins with looking Mariah. But by looking his wife, he can’t get sin so Cik Yam is his wife. So, if Tuk Imam don’t want to make sin so he not need to go to that stall. He can eat Cik Yam’s nasi berlauk. Cik Yam is a good cooker and good wife so he has no concrete reasons to support his married...

...I think he’ll wouldn’t regret his decision to marry Mariah. It’s because his miss towards his first love had been replace. So, he wouldn’t keep thinking about the lady. He also save from the sin. He also will satisfy and know actually who is the barren one neither him or Cik Yam...

Another reason why the case study subjects were better at expressing their thoughts orally is because test comes with time limitation. Although the students have studied the short story for 18 weeks but sitting for exams usually incur stress and anxiety among the students. Consequently, this leads to weak cognitive ability such as difficulties with memory and recalling information (Archana Kumari & Jagrati Jain, 2014). They further stated that some students also experience panic attack where the mind goes blank due to exam stress.

This might be the reasons why although the students’ test scripts show evidences of HOTs but when compared to their oral response, their essays are not as critical as they received no prompting. They had to read, understand what the question wants, go back to the text and try to either analyse, synthesise or evaluate the information from the text and write their thoughts on papers within the time frame provided in their second language clearly and logically. As a result, though they answered the questions and their answers showed that they were thinking on a higher level but their ideas are not well developed nor well supported with textual evidences from the text. Thus, all of the subjects wrote brief answers ranging from 8-10 lines as compared to the time allocated per question. This shows that the subjects do not know how much they should give and how in depth their answers should be.

Analysis of the in-class and follow up lessons also discovered that the subjects showed better evidence of HOTs when they communicate in class when they were prompted by the teacher-researcher or their friends who challenge, argue and present ideas and opinions to stimulate further response from them. In stimulating the students’ thoughts
and opinions of the discussed topics and issues during the in-class and follow up lessons, the researcher did the following:

- asking the question ‘why?’ and ‘what else?’
- repeating the subjects’ answers / question in quizzical tone hence forcing them to further explain their answers
- restructuring the situation / question to stimulate more opinions

From the class observation, it is noticed that all 9 subjects were not hesitant to speak despite their inadequacy in the language. They practiced turn-taking where they agreed-disagreed and supported their friends’ opinion yet highlighted their point of view in a civilized manner. Though the subjects did face some problems such as not knowing what word or phrase to use, distorted sentence that were influenced by their mother tongue but meaning came through. This could be because of the small class size and they have been studying together between 2-4 years. They are comfortable with their classmates and the teacher-researcher is not a stranger to them.

Everyone is given the opportunity to put forward their thoughts and opinions and each opinion shared is respected. Though there are instances where the subjects did not see eye to eye on the issue raised but no opinion is laughed at or looked down upon. Hence, the researcher believes that these are the reasons why the subjects were able to be more critical when discussing the issues raised in class compared to when they have to write down their answers on the test script.

This is further supported by the subjects through the questionnaires distributed whereby all of the subjects said that they were encouraged and driven to answer the posed questions without worrying whether the answers offered are right or wrong. All of them too agree that they did not have to do any memorization of facts pertaining to the text assigned. This could be a contributing factor too.

6. Conclusion

The result of the case study showed that CTM is capable of assisting the students to analyse, synthesise and evaluate in the Literature classes. However, profound evidence of HOTs can be seen when the students communicate during in-class and follow up class compared to the answers they provide for their test questions. But, it is discovered that the students need to be prompted with ‘why’ question or the students will settle for one-word answer. This could be related to the findings shared in The Preliminary Report of the Malaysia Education Blueprint 2013-2025 which showed that most lessons in school did not sufficiently engage students in constructive thinking. Most teachers have been relying on lecture format and teaching and learning process is still very much directed at recalling facts, achieving surface level content and understanding rather than on giving the students the chance to build their HOTs (Ministry of Education, 2012). Hence, lower order thinking still dominates teaching method and learning outcomes in most classrooms. The case study result showed that HOTs is teachable and students are capable of this skill. The one factor that educators need to invest in is time. It is a skill and probably a life-long skill that needs to be patiently instilled and taught. The question is; are we willing to invest our time for it?
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Reference


