Cultivating Critical and Creative Thinking Skills through an Integrated Approach to the Teaching of Literary Texts

Saroja Dhanapal
University of Malaya, Malaysia
sarrojadhana@um.edu.my

Abstract
This research addresses the issue of critical and creative thinking skills (henceforth abbreviated to CCTS) in relation to Malaysian secondary school students. The aim of this study is to show how CCTS can be cultivated in the Malaysian secondary schools. The study advocates an integrated approach, an approach which combines the reader response theory and stylistic analysis to the teaching of literary texts as a method of cultivating CCTS among Malaysian students.

Introduction
The topic of critical and creative thinking skills has been debated extensively over the years. Academicians all over the world have accepted that the central goal of education is to help students learn how to think more effectively. Over the years there is evidence to show that CCTS are much needed in modern societies. Marzano claims that the success of any democratic system depends on the individual’s ability to analyze problems and make thoughtful decisions [13]. Cotton asserts that in the twentieth century, the ability to engage in careful, reflective thought has been viewed in various ways: as a fundamental characteristic of an educated person, as a requirement for responsible citizenship in a democratic society, and, more recently, as an employability skill for an increasingly wide range of jobs [3].

The awareness as to the need to cultivate CCTS among students in Malaysia has been an issue of concern to many. Literature in English has been chosen from the many subjects offered in the Malaysian curriculum as a suitable base to inculcate CCTS for two reasons. Firstly, literature in English can be seen to cut across the various subjects in the curriculum as the contents of literary texts are so diverse that they incorporate social, political, scientific, technological, medical and all other areas of life. Secondly it is an undeniable fact that literature plays an important role in the Malaysian curriculum since it is now being taught to students from Form 1 to Form 5 as a component of the English Language syllabus. Malachi Edwin (1992) stated that literature in English besides developing reading skills will also help develop students’ critical thinking skills. He adds that these skills will in turn
provide students opportunities to understand themselves and their fellow human beings better. Ganakumaran S. gives further illustration as to why literature is a suitable subject for cultivating CCTS [5]. He claims that “in literary reading we are engaged with the multitude of possibilities underlying the aspects we are reading [and that] this engagement leads us to the realm of explorations of how the various elements of the texts – language, style and content – lead us through a wondrous journey of interpretations of the entire work”. Thus, there is no doubt that the very nature of the subject which requires analysis and interpretation in itself encourages critical and creative thinking.

As an alternative solution to the current situation in Malaysia in terms of insufficient development of CCTS among students, this study hopes to establish that the use of a reader response theory and a stylistic analysis as a method of approach to literary texts will specifically be effective in cultivating critical and creative thinking skills. These modes of teaching and learning literature start on a premise that readers construct meaning to texts differently and thus are empowered to interact on a direct and personal level with the texts. In doing so, they become personally involved in the investigating process and in this process they will think both critically and creatively. It is believed that the reader response approach assigns the reader/learner with a dominant role in the meaning making process while the stylistic approach focuses on the text itself i.e. focuses on words on the paper and leads on to make textual discoveries. Further the stylistic approach also conforms to the current language teaching theory and practices as the focus is more on the process of language learning and the learner [19]. Both the stylistic analysis and reader response approach blends well and is suitable for instilling CCTS among Malaysian students. Under this integrated approach, the whole classroom becomes a site for interactive process and the teacher does not take a dominant role and students take responsibility of their own learning. Thus, the study attempts to prove the hypothesis that an integrated approach to literary text will ensure the cultivation of CCTS more effectively among students.

2. Aim of Study
The aim of the study is to investigate the levels of CCTS among Malaysian students and to prove the effectiveness of the integrated approach for instilling CCTS. For this purpose, the researcher used an adapted Bloom’s taxonomy [1] named Cogaff taxonomy by Ghazali Mustapha [8] which combines the cognitive and affective thinking skills. The affective level which is added to the six existing thinking levels in Bloom’s taxonomy is used in this
thesis with a slight change of focus. Ghazali Mustapha has listed the affective level at the peak of Bloom’s taxonomy. The researcher however has modified the Cogaff Taxonomy as the affective domain is shown to be in existence more with the higher order thinking skills starting from the application level. The reason for the researcher’s placing the affective domain as existing from the application domain is based on Rosenblatt’s claim that there are two stances to the reading of literary texts [15]. The difference between the two stances is that efferent reading requires learners to identify meaning while aesthetic reading requires reactions to the meaning being constructed [17]. At the knowledge and comprehension level, there is more efferent reading while from the application level onwards; there is aesthetic reading which requires learners to react to the texts. The researcher considers the affective domain to be on the same line as the aesthetic reading for it involves stirring of personal feelings, ideas and attitudes that lead to new experiences. Rosenblatt asserts further that the aesthetic stance involves a transition between the reader and the text as the reader crosses over and enters into the world of the text to experience the story, events and situations [16]. However at the knowledge and comprehension level there is mere understanding with no focus on personal feelings. At these levels, the reader does not see herself as living through a literary character which is required at the aesthetic level of reading [18]. The researcher has named the new taxonomy as the Critical and Creative Thinking (CCT) Taxonomy which is shown in Figure 1.

**Evaluation**  
**Synthesis**  
**Analysis**  
**Application**  
**Comprehension**  
**Knowledge**  
**AFFECTIVE**

Figure 1. Creative and Critical Thinking Skills (CCTS) Taxonomy

3. **Integrated Approach**  
An integrated approach is an excellent approach to the teaching of literary text in the Malaysian context as both stylistic and reader response are theories that blend well due to their natural characteristics of being extremely flexible but ‘yet anchored in the sound theories of the established disciplines of linguistic and pragmatics’ [7]. It can be concluded that reader-response approaches as we have seen would enlist a variety of interpretation but with stylistics in play, readers would follow some
similar interpretive conventions. The process of reader-response and stylistic approaches to literature can be seen in Figure 2.

The process of the integrated approach as shown in Figure 2 explains how the two approaches blend to form a complete whole. As we know reader response theory and stylistic analysis can be considered as approaches to literary analysis which stress on the importance of the participating reader. The integrated approach is an activity based approach. Students learn more when opportunities for learning increase, when they are actively engaged in activities, and when they are relatively successful in solving the problems. Thus the use of the integrated approach will definitely create work settings that approach and support better learning.

4. Methodology
This study aimed to show that currently there is a serious lack of focus on developing CCTS among Malaysian students. Even if there is focus, they remain at the lower levels of thinking order based on the CCT Taxonomy which is adapted from Bloom’s and Cogaff Taxonomy, which is used as a basis for testing students’ levels of thinking skills. Thus, a quantitative research design by way of an experiment inclusive of a pre-test and post-test was carried out to establish this phenomenon. The tests were to establish the difference in levels of CCTS among Malaysian students and to establish that an integrated approach results in a higher level of CCTS.

To furnish a more convincing foundation for estimating the success of an integrated approach, the researcher’s final evaluation is based not only on the post-test scores, but on the extent of change from pre-test to post test. The researcher first gave a pretest on the texts studied to evaluate how far CCTS has been instilled in them. The test was designed by the researcher using the adapted Bloom’s taxonomy. Subsequently, the researcher conducted classes using a framework designed based on the integrated approach after which a post-test was given. The questions in both the pre-test and post are the same. The design used in this experiment shows in Figure 3.

The advantage of this design was that it enabled the researcher to compare the apparent effectiveness of
an integrated approach to the teaching and learning of literature to cultivate CCTS. The data was then analyzed using the ANOVA to test the experiment results as the researcher found it to be a comprehensive method to identify the difference within the groups in terms of pre-test and post-test.

4.1. CCTS Test
The CCTS Test was designed by the researcher and is a two-tier test which consisted of both structural and essay questions. A total of 16 structural questions were designed to test the 6 levels of critical and creative thinking skills. The questions correlate with the levels of thinking being tested. The second part consists of two essay questions, the first designed to test the critical thinking of the students while the second tests the creative thinking skills of the students. In the first essay, students were required to illustrate how studying literature has benefited them. To answer this question, students have to illustrate their answer with evidence from the texts studied in Form Four. At this point, students’ ability to analyze texts at a critical level is tested. The second essay tests the students’ creative thinking level as the question requires students to choose the theme in one text and subsequently write their own short story. This question tests students’ ability to apply what they had studied in a new context i.e. the insight and innovation level. According to Bloom [1], at these levels, students are tested on their ability to explore ways to confront complex situation, put new ideas into practice as well as generate alternate ideas and approaches to solving problems.

4.2. Sampling
There are various methods of sampling. Among these would be simple random sampling, systematic sampling, stratified sampling, cluster sampling, stage sampling, convenience sampling, quota sampling, purposive sampling, dimensional sampling and snowball sampling (Cohen & Manion 1980). For the purpose of this thesis, a purposive sampling was used whereby two schools from two different states were used. The schools selected from both the rural and urban areas were done with the intention of getting a holistic response. By selecting schools from different geographic location, it was hoped the responses will be more accurate and reliable.

In purposive sampling, the sample was handpicked to show that typicality exists in the sample selected. The diverse background of students was selected for the aim of the researcher is to convey the point that there is a current lack in CCTS among Malaysian students immaterial of location and an integrated approach will overcome this. Another reason for the selection of different environment was also to establish the fact that
difference in culture, environment, religion and any other difference will not be a hindrance to the adoption of this new integrated method of teaching for cultivating CCTS.

Although a purposive sampling was used in terms of schools selected, a random sample was used in selecting the 25 students in the respective classes. A random sample invokes what is called probability sampling which means every member of the population has a non zero probability of being selected for the sample [20]. This type of sample is small and yet it as representative of the population from which it was selected. The survey results come from approximately 25 students from the urban school and 25 students from the rural school, totaling up to 50.

5. Findings and Discussion
The Figure 4 shows the results of the pre and posttest results of treatment group in the rural school.

Figure 4. Pre and Post Test Results of Treatment Group (Rural School)
The Figure 4 presents the sample taken from the treatment group in rural school. For Question 1, the pre-test entry is 88.0, and the post-test entry is 96.0. The variance (difference in means) between the two tests values is 8.0, which is an inclined value. For Question 2, the pre-test entry is 52.0, and the posttest entry is 72.0. The variance between the two test values is 20.0. For Question 3, the pre-test entry is 42.0, and the post-test entry is also 58.0. The variance between the two test values is 16.0. For Question 4, the pre-test entry is 34.0, and the posttest entry is 72.0. The variance between the two test values is 18.0. For Question 5, the pre-test entry is 58.0, and the post-test entry is 74.0. The variance between the two test values is 16.0. For Question 6, the pre-test entry is 28.0, and the post-test entry is 28.0. There is no variance between the two test values. For Question 7, the pre-test entry is 50.0, and the post-test entry is 86.0. The variance between the two test values is 36.0. For Question 8, the pre-test entry is 32.0, and the post-test entry is 50.7. The variance between the two test values is 18.7. For Question 9, the pre-test entry is 20.0, and the posttest
entry is 36.0. The variance between the two test values is 16.0. For Question 10, the pre-test entry is 25.3, and the post-test entry is 41.3. The variance between the two test values is 16.0. For Question 11, the pre-test entry is 34.7, and the post-test entry is 76.0. The variance between the two test values is 41.3. For Question 12, the pre-test entry is 21.3, and the post-test entry is 58.7. The variance between the two test values is 37.4. For Question 13, the pre-test entry is 16.0, and the post-test entry is 65.3. The variance between the two test values is 49.3. For Question 14, the pre-test entry is 12.0, and the post-test entry is 58.7. The variance between the two test values is 37.4. For Question 15, the pre-test entry is 42.0, and the post-test entry is 62.0. The variance between the two test values is 20.0. For Question 16, the pre-test entry is 35.0, and the post-test entry is 62.0. The variance between the two test values is 27.0.

The results of Section B were also similar to the findings of Section C. The first level tests the critical thinking skills of the student. For Question 1, the Pre-Test entry is 21.6, and the Post-Test entry is 44.8. The variance between the two test values is 23.2. The second level tests the creative thinking skills. Under this levels, one question was posed; Q2. For Question 2, the Pre-Test entry is 9.2, and the Post-Test entry is 27.6. The variance between the two test values is 18.4.

5.1. Analysis of Between Group Differences in Scores of Treatment Group (Rural School)

Repeated measure analysis of variance (ANOVA) was conducted and the table below shows the findings.

Table 1. Comparison of levels of CCTS between pre and post-test results of rural treatment group

Null Hypothesis 1: There is no significant improvement from the pre and post test results of the treatment group in the rural area (see Figure 5).

F value = 14.96
7.44 at 0.01 significance
Hy : No significance
H1 : Significance

Figure 5. Null Hypothesis 1

The mean of rural treatment is 34.51 for pre-test and 59.08 for the post-test (with a difference of 24.57). The test results show that there is a significant difference in scores for the pre and post-tests from the rural treatment group (F = 14.96, which is > 7.44 for p > 0.01). Therefore, this study should reject null hypothesis 3. There is a significant improvement in the performance of the pre and post-test of the treatment group in the rural area.

Experiment Results of Treatment Group (Urban School)
The Figure 6 shows the results of the pre and posttest results of treatment group in the rural school.

Figure 6. Pre and Post Test Results of Treatment Group (Urban School)

The Figure 6 presents the sample taken from the treatment group in an urban school. For Question 1, the pre-test entry is 68.0, and the post-test entry is 96.0. The variance between the two tests values is 28.0, which is an inclined value. For Question 2, the Treatment Group (RURAL) Mean Standard Deviation F p
(0.01)
Pre-Test 34.51 13.76 14.96 7.44
Post-Test 59.08 13.60
pre-test entry is 56.0, and the post-test entry is 68.0. The variance between the two test values is 12.0.
For Question 3, the pre-test entry is 64.0, and the post-test entry is also 76.0. The variance between the two test values is 12.0. For Question 4, the pre-test entry is 42.0, and the post-test entry is 84.0. The variance between the two test values is 42.0.
For Question 5, the pre-test entry is 64.0, and the post-test entry is 96.0. The variance between the two test values is 32.0. For Question 6, the pre-test entry is 24.0, and the post-test entry is 36.0. The variance between the two test values is 12.0. For Question 7, the pre-test entry is 22.0, and the post-test entry is 56.0. The variance between the two test values is 58.0. For Question 8, the pre-test entry is 18.7, and the post-test entry is 56.0. The variance between the two test values is 37.3. For Question 9, the pre-test entry is 29.3, and the post-test entry is 56.0. The variance between the two test values is 26.7. For Question 10, the pre-test entry is 25.3, and the post-test entry is 54.7. The variance between the two test values is 29.4. For Question 11, the pre-test entry is 33.3, and the post-test entry is 74.7. The variance between the two test values is 41.4. For Question 12, the pre-test entry is 12.0, and the post-test entry is 76.0. The variance between the two test values is 64.0. For Question 13, the pre-test entry is 32.0, and
the post-test entry is 92.0. The variance between the two test values is 60.0. For Question 14, the pre-test entry is 23.0, and the post-test entry is 62.0. The variance between the two test values is 39.0. For Question 15, the pre-test entry is 37.0, and the posttest entry is 59.0. The variance between the two test values is 47.0. For Question 16, the pre-test entry is 40.0, and the post-test entry is 62.0. The variance between the two test values is 22.0. Section D of the Survey showed similar results. The first level tests the critical thinking skills of the student. For Question 1, the pre-test entry is 16.0, and the posttest entry is 48.0. The variance between the two test values is 32.0. The second level tests the creative thinking skills. Under this taxonomy, one question was posed; Q2. For Question 2, the pre-test entry is 2.4, and the post-test entry is 41.2. The variance between the two test values is 38.8.

The results indicate the effectiveness of the integrated approach. The results of the post test of both groups show a significant increase. In the case of the rural school, the post-test results showed an increase ranging from 0% to 49.3%. Similarly the post-test results of the urban school showed an overall increase ranging from 12% up to 64%. The large range in difference indicates the effectiveness of the method.

In both results a significant finding is that Q6 in the application level did not show any increase in the rural school while portrayed a small percentage of increase in the urban school. The increase was the second smallest increase i.e. 12%. The reason for this lies in the question itself which was flawed.

5.2. Analysis of Between Group Differences in Scores of Treatment Group (Urban School)

Repeated measure analysis of variance (ANOVA) was conducted in the same manner to that conducted for the treatment group in the rural school and the table below shows the findings.

Null Hypothesis 2: There is no significant improvement from the pre and post test results of the treatment group in the urban area (see Figure 7).

F value = 30.32
7.44 at 0.01 significance

Ho : No significance
H1 : Significance

Figure 7. Null Hypothesis 2

The Table 2 shows the mean of urban treatment at 33.84 for pre-test and 67.64 for the post-test (with a difference of 33.80). The test results show that there is a significant difference in scores for the preand post-tests of the urban treatment group (F = 30.32, which is > 7.44 for p > 0.01).

Table 2. Comparison of levels of CCTS between pre and post-test results of urban treatment group
Therefore, this study should reject null hypothesis 3. As stated above, there is a significant improvement in the performance of the pre and post-test of the treatment group in the urban area.

6. Conclusion
This study represents an attempt to evaluate the level of CCTS among Malaysian students and at the same time propose and integrated approach to the teaching of literary texts to inculcate and enhance the level of CCTS. The researcher believes strongly that the need to cultivate CCTS and improve the level of English proficiency among Malaysian students can be done by employing the integrated approach to literary texts.

The research shows that other approaches to teaching literary texts do in general have the ability to inculcate CCTS among students but it is only at the lower levels as proven by the pre-test results. Though many strategies or techniques or modals have been developed to help facilitate growth in critical and creative thinking, the strategy advocated in this thesis provides a framework on which meaningful, extending activities can be built and from which questions can be formulated that allow students to relate to literary texts and discover meaningful connections with their own lives. The ANOVA results has clearly proved that the integrated approach does inculcate CCTS more effectively that the other methods employed by the teachers. The findings of both the rural and urban schools were consistent. The results proved that the integrated approach can be used for students of both high level and low level English proficiency.

The conclusions drawn from the findings of the present study may be significant in throwing light on how to inculcate and enhance CCTS in a more effective manner. It is strongly believed that employing an integrated approach to the teaching of literary texts would not only inculcate and enhance CCTS but in the long run have a positive impact on students’ overall academic achievement.

7. References


