INCORPORATING CRITICAL THINKING SKILLS INTO AN ENGLISH TEXTBOOK FOR JUNIOR HIGH SCHOOL STUDENTS OF SEMARANG CITY

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Article Info

Abstract

The objective of this study is to find out whether the use of English textbook which deliberately incorporatescritical thinking skills into its tasks is effective to promote critical thinking skills to the students of Semarang City. This study is based on the theory that critical thinking skills can be nurtured and the process of nurturing should be done directly and explicitly. A research and development (R and D) approach was utilized as the design of this study and the development of the textbook model was based on the results of the analysis of the existing English textbooks for junior high school students and the needs analysis. The prototype was validated by experts and practitioners before it was tried-out in a state school in Semarang. In the examination phase, an experimental research was conducted to the students and the teachers of three different schools in Semarang in the odd semester of the academic year of 2013/2014.The results showed that the students taught using the model had better results of critical thinking skills assessment than those who were not. With sensitive feedbacks and aids given by teachers, the students also showed a more active involvement in the learning process.

INTRODUCTION

Recently, questions regarding how critical thinking skills (it will be addressed as CTS in the entire sections of this article) in English should be taught have been raised. A review of the literature shows that various techniques have been suggested. For example, Kabilan (2000) proposed the use of the pedagogy of questioning based on Freire's constructs (1970, 1973); Zainuddin and Moore (2003) experimented with a structured controversial dialogue technique for fostering CTS (among English language learners; Kasper (2000) engaged high-intermediate ESL students in sustained content study within collaborative learning communities and used information technology resources to hone students' linguistic as well as thinking skills.

Regardless to the little argument among theorists and educators about the interrelatedness of the development of languages and thinking skills, now when we search on websites of schools in Europe and many parts of the world, we can easily locate that the schools have integrated the thinking skills in their language text. Mountain Lake High School, for example, incorporating the thinking skills in many areas of its texts including in English. The school writes on its 2012-2-13 text descriptions for the 9 graders as follows: The English component of the interdisciplinary World Cultures program emphasizes global awareness and *critical thinking skills* through the close reading of literature. Another example is taken from language curriculum for grade 1-8 published by the Ontario Education Department (2006). It clearly mentions that the aims of learning language are among others to help students become successful language learners, who share the characteristic of thinking critically.

In 2010, Indonesian Government through Ministry of Education has also deliberately stated that CTS is one of the elements of Character Building Education. The statement is meant to encourage teachers to take into account the importance of teaching CTS in their classes. It also means that any stakeholders should also think of how to make the practice comes true. The practice should cover what steps should be taken and how to maintain the steps have been made.

However, the practice of teaching CTS in Indonesian classes are far from what is expected. A questionnaire has been given to 105 English teachers of SMP and MTs in a province in Indonesia. The questionnaire was meant to reveal what those teachers know about 1) critical thinking skills and 2) what they have done to teach their students to think critically. Surprisingly, 70% percent of the teachers failed to give representative answers of what they know about critical thinking skills. This led to the failure to respond to the second question, too. To be noted that when judging the answers, the priority was not on the exact description of the CTS given by experts, but on what the teachers have known about it.

When the teachers do not know what the issue is, how would they realize the expected state? Trainings, let alone classroom supervisions which supports the existence of the skills in the classrooms are neglected. The condition might represent the one mentioned by some experts (e.g. Burden, 1998; Onosko and Newmann, 1994) that there is a growing realization that schools in general are not succeeding in teaching learners to think, and indeed are not making demands on the learners in this area.

One obvious cause is the socialization of the CTS for the teachers are not systematically conducted. When teachers are introduced with the characters building education, it seems they are also expected to be automatically introduced with the critical thinking skills by the trainers of a training or workshop. However, this is not always the case since sometimes the instructors do not have a comprehensive knowledge about the critical thinking skills.

Fisher (2001) states many teachers claim that they have taught CTS in their classes *indirectly* which increasingly makes educators have come to doubt the effectiveness of teaching 'thinking skills' in this way because most students simply do not pick up the thinking skills in question. Fisher suggests a way what he calls as *directly* and *explicitly*.

The directness of teaching the CTS are supported by Edwards (1994) in Ong (2003:305):

A wealth of research supports the direct teaching of thinking skill. For example, studies of how direct instruction in creative thinking affects the creative output have found direct instruction to be beneficial in helping individuals generate more original ideas…to promote more thoughtful responses, teachers must clarify the thinking needed to develop thoughtful responses.

A preliminary study was conducted to examine whether or not the current textbooks used have accommodated the CTS in their activities. The results show that the textbooks neither directly nurture the CTS nor provide sufficient activities to encourage students to think critically.

To provide the teachers with a comprehensive model of incorporating CTS into their English class, the researcher set up a study to examine the effectiveness of promoting learners' critical thinking skills through the use of a carefully designed textbook which deliberately incorporates critical thinking skills in its activities.

The emphasis on the deliberation of teaching the elements of CTS is not only based on the theories stated by some experts on the previous part of this proposal, but also on the results of the content analysis conducted towards three books which are widely used by teachers in Indonesia. The results show that the elements of CTS are there, meaning that the writers - consciously or unconsciously- have already provided the activities, but they are not deliberately mentioned as the activities to promote the CTS. The CTS are also not introduced systematically. The condition does not make most of the teachers know what CTS are, how to implement them -those facts were revealed through the questionnaire. Some teachers, even, neglect such activities since they think the activities are less important, or too difficult both for them and the students. Thus, to develop a textbook in which the CTS are deliberately and systematically incorporated is obviously needed.

RESEARCH METHOD

The method used in this study was Research and Development. The product of the research was a textbook which incorporates critical thinking skills.

Borg and Gall (1983) suggest the main steps of Research and Development as follows: (1) Research and information collecting, (2) Planning, (3) Develop preliminary form of product, (4) Preliminary field testing, (5) Main product revision, (6) Main field testing, (7)
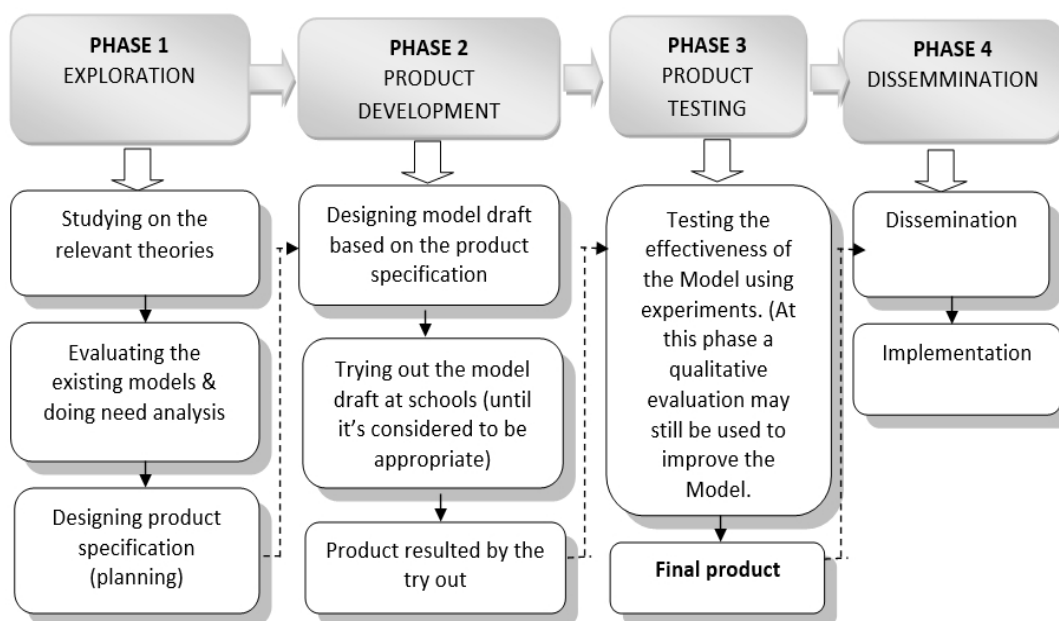

Figure 1. Research and Development –adapted from Borg and Gall (1983)

Operational product revision, (8) Operational field testing, (9) Final product revision, and (10) Dissemination and implementation.

However, for the purpose of thesis and dissertation, Borg and Gall (1983: 792) suggest the following thing:

If you plan to do an R & D project for a thesis or dissertation, you should keep these cautions in mind. It is best to undertake a small-scale project that involves a limited amount of original instructional design. Also, unless you have substantial, financial resources, you will need to avoid expensive instructional media such as 16-mm film and synchronized slide tape. Another way to scale down the project is to limit development to just a few steps of the R & D cycle.

The following diagram gives a clear figure of the simplified steps conducted in this research.

The following is the explanation of the four phases above:

Exploration: (1)*Review of Related Theories*.Review of related theories is conducted to ensure that the researcher has acknowledged the main concepts of the study. Generally, the main concepts can be recognized from the title and the research problems. Such knowledge will be useful for the researcher to identify, collect, and analyze the data in the field and interpret the findings appropriately. (2) *Review of the Existing Model*. After the researcher has fully understood the main concepts of the study, he must review the existing models. The review is conducted through documents/artefacts analysis, observation, interview, and other relevant techniques. The review is also conducted using certain theoretical framework. (3) *Need Analysis*

The next step is working on the need analysis towards the existence of the model which will be developed in this study. The researcher should find out whether the stakeholders need a new model which is considered to be better as well as to figure out the criteria of the needed model. The techniques which might be used in this stage are questionnaire, interview, observation, document analysis, FGD, and other relevant techniques.

(4) Designing model specification (planning)Based on the result of the previous stages, the researcher then designs the model specification. In this stage, the researcher makes planning –what the model will be like. The design covers the name of the model, the objectives of developing the model, model specification, the users of the model, and the assumptions of the model use, etc.

Model Development: (1) *Designing Prototype (draft) of the model*. Based on the planning, the researcher design a model draft. Model draft which has been designed should be validated by experts who are competent and independent. The validation is intended to ensure that the model draft is theoretically and academically acceptable. (2) *Trying Out the Model*. The draft which had been designed and validated by the experts was then tried out in the field (schools). The try-outs were conducted several times. The mechanism of the try-outs was:

Model draft $\longrightarrow$ try-out 1 $\longrightarrow$ monitoring and evaluation 1 $\longrightarrow$ revision 1 $\longrightarrow$ revised draft model $\longrightarrow$ try-out 2$\longrightarrow$ monitoring and evaluation 2 $\longrightarrow$ revision 2 … and so on, until the model was considered to be acceptable based on a certain criteria which had been set by the researcher and the experts.

Model Testing: Model testing is intended to review the effectiveness of the model after the try-outs. The method used is experiment. Researcher may chooses an experimental design which is considered to be appropriate.

Dissemination and Implementation: The researcher socialize and disseminate the model which has been developed so that it can be recognized by the society as well as can be implemented in the intended field. The dissemination can be done in many ways, such as through presentations in seminars, journal articles, and websites.

Based on the explanation above, the following is the figure of the framework of this research.
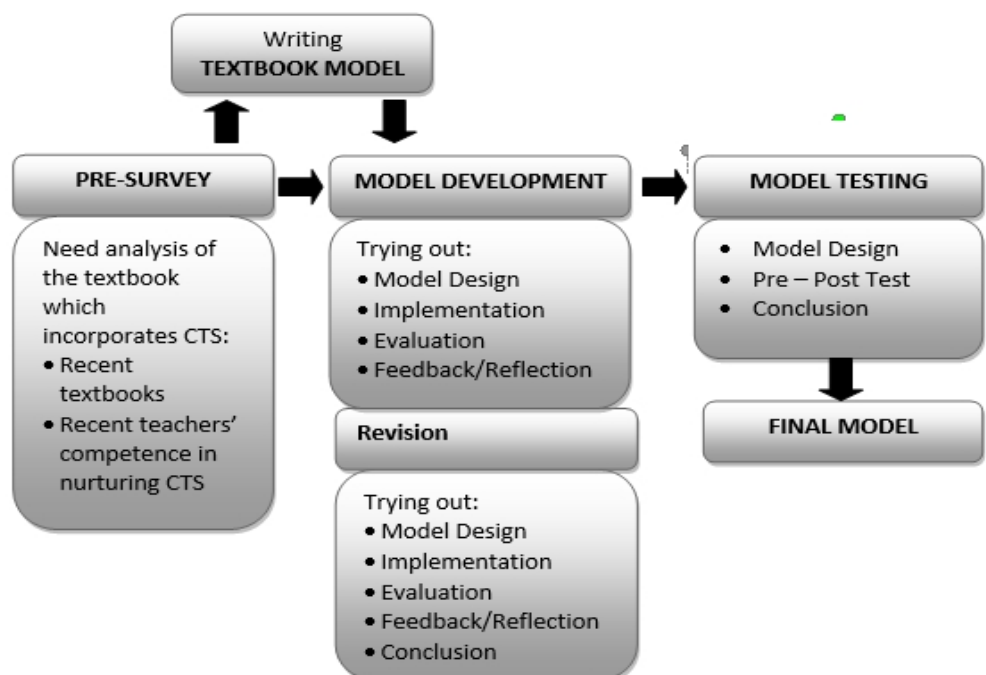
Figure 2. Framework of the Research

RESULTS AND DISCUSSION

Exploration

Most of the teachers acted as the respondents of this research still relied on the textbook for helping them in their class. The following result of the questionnaire gave the proof. Fifty teachers acted as the respondents of this research were asked to response to a questionnaire whether they used textbooks in their classes. 45 respondents stated that they did make use of textbooks in their classes, and 5 respondents stated that they didn't. One respondent failed to give her response. Further interview was made to support the data. The result reveals that the respondents also made use of other resources, such as worksheet written by the teacher board or independent teachers. The result reveals that most of the respondents depend on the textbooks to fulfil the students' need of the learning materials.

From the five textbooks frequently used by the respondents, there were three textbooks chosen to be analyzed in this research. The three textbooks were chosen because they had got the approval by the ministry of Indonesia national education to be widely used by Indonesian students under the regulation of the BSE (*Buku Sekolah Elektronik*). A unit of each book was randomly selected to act as the sample of the content analysis. The analysis was based on the levels of thinking by Bloom taxonomy which was revised by Anderson & Krathwohl (2001).

Table 1. Result of Content Analysis on the Levels of Thinking of the Current Textbooks

Levels of Thinking	Code	Textbook A		Textbook B		Textbook C	
		Number	%	Number	%	Number	%
Remembering	C1	12	41%	24	51%	14	37%
Understanding	C2	6	21%	12	26%	9	24%
Applying	C3	3	10%	4	8.5%	4	11%
Analyzing	C4	3	10%	5	8.5%	4	11%
Evaluating	C5	3	10%	-	0%	2	5%
Creating	C6	2	7%	2	4.3%	5	13%
		29		47		38	

Based on the above table, we can conclude that the chapters in textbook A and B are dominated by remembering level of thinking since about a half of the tasks explore the remembering level of thinking. The first three levels of thinking (*remembering, understanding,* and *applying*) dominate the activities of the chapter.

In textbook A, the total number of the first three levels is 21 activities of the 29 activities provided or 72%. While the rest or only about 28% of the activities provided for the high order thinking skills. The number of activities for creating which is only two can be understood because the activities provided for such level of thinking usually are complicated ones.

In textbook B, the total number of the first three levels is 40 activities of the 47 activities provided or 85%. While the rest or only about 15% of the activities provided for the high order thinking skills. The number of activities for creating which is only two can be understood because the activities provided for such level of thinking usually are complicated ones. However, the absence of the activities for evaluating is fatal, since this kinds of activities is a strategic stepping stone for further level of thinking that it creating. The result of the analysis concludes that the textbook A and Bwere merely prepared to accommodate the basic competences mandated in the curriculum without paying attention to the process of nurturing CTS in the class.

In textbook C, the total number of the first three levels is 27 activities of the 38 activities provided or 71%. While the rest or only about 29% of the activities provided for the high order thinking skills. The number of activities for creating is 5 (five) which is higher than the former two books.

The findings of the content analysis prove that the current textbooks actually have provided the activities which encourage the users to have CTS. However, since the teachers do not have enough knowledge let alone skills to nurture CTS in their class, those activities are often neglected. Thus, it strengthens the objective of this research that is to develop a textbook which deliberately incorporates CTS into their activities.

Development

A protoype of the textbook was designed based on the 2006 curriculum of Indonesian National Education. The teacher manual was also prepared to help teachers optimize the use of the textbook in their class. Each unit in BRIGHT (the name of the textbook model) in the overall contains: (1) materials suggested to gain competences which have to be achieved by the ninth graders based on the Curriculum 2006 of Indonesian National Education; (2) To help the students gain each competence stated, the textbook also covers the language features related to the materials. The choice of the language features exposed to the students in each unit is based on the text or the material of the unit. When discussing the report text, for example, the students will also learn vocabularies related to the animals, adverbs of manner, and passive voice; (3) tasks to facilitate the students to think critically. The tasks vary depending on the instructional objectives to gain. The students are encouraged to compare, contrast, recognize facts and opinions, predict what will happen, summarize, and other activities which gradually lead the students into the high levels of thinking

Sample of the tasks (See Figure 3)

Topics were carefully selected regarding to the students' age and need. Since the textbook is intended for the students of Semarang city, some topics expose the local culture and places of interests.

Lay-out of the pages in the textbook model was designed in such a way to ease the teachers and the students to know the level of thinking they are working on. The levels of thinking are put explicitly on the right side of the page.

After the draft was ready, an expert in teaching and learning and an expert in books publication were asked to validate the draft of the textbook model. The results of the validation were then used to revise the draft. To find out whether the textbook could be operated effectively and gain the objectives stated, it was tried out in a school in Semarang city.

1

ice cream, but could you make the sauce less hot?

Waiter : Sure.

Task 6.
Practice the above dialogue with your friends.
Change the name of the food and drink you order.

Remembering
Reproduce the dialogue

2

Discuss the following things.

When Sharon said:

> Well, I'd like to have Gado-gado, but I'm not sure, I'm afraid it's too hot for me.

What did she actually express?
She expressed ....

Understanding
Interpret the expression in the dialogue.

3

1. Whom the first email is written to?
   _____
2. Whom the second email is written to?
   _____
3. Do you think both emails are for making enquiry? Which sentences supports your answer?
   _____
4. Read carefully on the language used by Mona on both emails. What kind of language style does she use in the first email and the second email?
   _____
   _____
5. Pay attention to how Mona opens and closes her emails? Compare the two emails.
   _____

Analyzing
Compare the two emails.

4

Task 9.
Work in pairs. Create a dialog. Choose one of the topics below.

1. You're going to have a school vacation. You and your friend plan to have a journey. Your friend wants to climb a mountain, but he's not sure with the weather. Persuade him/her to go to a museum in your city. Tell him /her what you can see there.

2. You and your mother are in a shop selling clothes. Your mother has chosen a lot of dresses but doesn't know which one to take. Suggest her the dress she should take.

Designing
Produce a dialog based on the given situation.

Figure 3. Samples of Graded Activities To Nurture the CTS

The reason of choosing the school was it was represented the regular schools with middle achievement academically and non-academically.

The try-out was conducted in SMP 8 Semarang. There were 108 students participated in the try-out. The aims of this stage were to find out whether the first draft was: (1) applicable for

the students to gain the mandated language competences as stated in the current curriculum, (2) able to be used by the students to develop their CTS.

The try out was conducted in July, August and September 2013. The reasons of choosing SMP 8 as the place for the try-out were: (1) SMP 8 is a middle-class school in which the students' parents or caretakers coming from various social, economy, and educational background. It's also an ideal school to try out the draft since the students' achievement considered to be medium based on the result of the students' state exam; (2) the researcher happened to teach in this school. It enabled the researcher to intensively observe and evaluate the draft being used by the students as well as to have an extensive discussion with the teacher who taught in the class.

The results of the try-outs were used to revise the textbook model.

Figure 4. Lay-out Sample of the page in the textbook model

Testing

Small scale testing and field testing were conducted in three different schools in Semarang city. Results of small scale testing shows that there is a significant difference on CTS test result between the students taught using textbook model and those who were not. The mean of students taught using textbook model is greater than that of those taught without using the model(83.63>78.69). The findings of the field testing also reveals that the mean of students taught using textbook model was greater than that of those taught without using the textbook model(82.19>78.06).Therefore, it can be concluded that the students taught using textbook model had better CTS test result than those who were not.

CONCLUSION

The current English textbooks used by the teachers in Semarang city are lack of practice in analyzing and evaluating. The remembering and understanding practices are dominating though each unit mostly ended with creating practices.

Based on the interview and the questionnaire the teachers did not know what critical thinking skills are, moreover how to nurture them in their classes. Through the in-depth interview teachers revealed that they avoided open-ended questions activities which are available in the textbooks. They thought that those activities were not importantly significantly important to be explored. The absence of the teacher's manual also made the teachers not ready to prepare themselves with the various responses the students might give.

To help the students increase their level of thinking, a textbook model which incorporates deliberately CTS was developed. The levels of thinking were presented in an integrated way with the language skills that should be acquired by the students. The level of thinking were deliberately posted on the right sides of the page to make sure both teachers and students aware of the level of thinking they are working on.The teachers in this research used various methods to enhance the critical thinking of students without an extra burden being placed on them. Simultaneously, teaching for content along with enhancing critical thinking skills was a very efficient use of time and effort. One mechanism the teachers used to encourage critical thinking was to use scaffolding. By using questions which reveal the students' ability to analyze and evaluate the teachers nurture the students' CTS. The questions were based on the materials developed in the textbook model. Try-outs of the textbook model revealed that by the help of the textbook and the teacher's instructions, the students became actively analyzing and evaluating works both made by themselves or presented to them.

Training students to do critical thinking is not an easy thing. Some parties might think that the process might delay the students to accomplish the language competence they are targeted to. However, with the help of a good textbook and a good planning, teachers will be able to facilitate their students in achieving the targeted language skills as well as in nurturing the critical thinking skills.

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