

**RESEARCHING STUDENTS' CRITICAL THINKING
IN ARGUMENTATIVE TEXTS
(A Systemic Functional Linguistic Perspective)**

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This study aims to investigate students' critical thinking as reflected in their argumentative writing in one state university in Serang, Banten. This study used a case study research design which employed two data collection techniques, i.e. the documentation of students' essays and interview. The data were, then, analyzed based on the theory of Critical Thinking (CT) and Systemic Functional Linguistics (SFL) which were validated by triangulation. The study revealed two findings related to the research questions. First, results of the text analysis showed that despite their ability to show their critical thinking in their writing, students' texts still showed that the verbalization of the students' critical thinking was less sophisticated and explicit. Second, as the interview data revealed, students' inability occurred due to their limited knowledge of the issue and lack of knowledge in applying their critical thinking in writing particularly in the expository genre. The findings above suggest that the students need more guidance so that they have a better command of some critical thinking components to develop their critical thinking, especially their capacity to argue, to state opinions and stance explicitly and carefully. All these may also reflect the urgency to provide the students in the site with a great deal of assistance in a writing process and efforts to expose students to some teaching programs with a view to improving their critical thinking in the future.

Keywords: critical thinking, argumentative writing, texts analyses.

Introduction

In this rapidly changing information age, the proliferation of accessible data has created a vital requirement for individuals to think critically. In response to this, Chaffee (2000, p. 5) believes that the ability to think critically and to reason well has been considered an important and necessary outcome of education in order to function effectively in this globalized world. In his further notes, Chaffee said that it is vital to try to determine the accuracy of information and evaluate the credibility of the people providing the information.

In the context of education, Paul (1995) said “critical thinking is an essential foundation for adaptation to the everyday personal, social and professional demands of the 21st century and thereafter” (p.7). This suggests that, like what Chafee believes above, the distinguishing characteristics of those who will not only survive but also “thrive” in the future will be abilities and traits, both intellectual and emotional that entail excellence in evaluating and responding to the conditions of change.

With regard to the English Language Teaching (ELT) in Indonesia, critical thinking has been a challenging issue. Indonesian EFL teachers are given responsibility to assist their students to acquire critical thinking skills while learning English (Alwasilah, 2001). This is done to give them adequate practice in critical thinking so that they can actively participate in the international community particularly in the global workplace.

Research on critical thinking has been a subject of concern of many educators from both second and foreign language education like Reed, (1998); Stapleton, (2001); Emilia (2005); Flores, (2006) and Alagozlu, (2007), among others. Conducted in one university in Japan, Stapleton (2001), for example, assessed critical thinking elements and voice in the writing class to find out whether Japanese students display elements of critical thinking and individualized identity. In his study, he found that those students possessed a firm grasp of elements of critical thinking which is indicated by their ability to put essential elements of critical thinking in their writing such as argument, reason, evidence, refutation and conclusion. In addition, Flores (2006) conducted a study regarding thinking skills as reflected in the argumentative essays of freshmen college students in Manila. This study revealed that almost 25% of students involved found writing an argumentative essay difficult. Those students, according to him, seem to be less critical due to the fact that most of them are poor in responding to opposing views in their writings.

Although many previous studies as mentioned above have investigated the students’ critical thinking, only a handful studies have explored the students’ critical thinking in writing in Indonesia (see Emilia, 2005; Chandra, 2007 and Kameo, 2007). In the research site, there has not been any research investigated students’ critical thinking. In response to this, research on critical thinking is urgent to be conducted in the site as the first step in creating a program in which critical thinking is incorporated in the teaching of writing in the future. Therefore, there is a need to investigate students’ initial critical thinking in the context of writing since it is found that many students find it difficult to demonstrate critical thinking elements such as arguments, reasons, and evidence in their essays (see also Moore and Parker, 1995; Stapleton, 2001; Reichenbach, 2001, among others) which directly show their ability to create a good and thoughtful argumentative writing (Chafee, 2000).

Departing from the facts described above, this present study aims to investigate students' critical thinking as demonstrated in their argumentative essays and their consciousness of their own critical thinking skills. As has been proven by Reichenbach, (2001); Flores, (2006) and Alagozlu (2007) through their studies, argumentative writing is an effective means to portray students' critical thinking.

The Concept of Critical Thinking

The word *critical* originally comes from the Greek word *kritikos* which means "able to perceive, detect, judge or analyze (Chaffee, 2002, p.37). Chaffee also defines the word *critical* as an attempt to questions, to make sense of and to be able to analyze something (Chaffee, 2000, p.45). In addition, this word (critical) is also associated to the word "criterion" which means *standard* (Paul at al, as can be accessed in <http://www.criticalthinking.org/schoolstudy.htm>).

With regard to the conceptions of CT, two popular conceptions, as mentioned in the literature, are critical thinking as the general subject (Moore and Parker, 1995; Reichenbach, 2001; Paul, 2002) and critical thinking as the subject specific (McPeck, 1992). These two conceptions, in particular, are debating on whether critical thinking skills are general skill to be applied in every subject area (Siegel, 1988; Ennis, 1998; Paul, 2002; Reichenbach, 2001) or whether it is in a specific area (McPeck, 1990; Brookfield, 2003, among others).

Some researchers like Siegel (1997) and Ennis (1998) believe that critical thinking is a concept which is generalizable. To support this, Siegel (1990) asserts that there are readily identifiable reasoning skills which do not refer to any specific subject matter, which do apply to diverse situations, and which are in fact the sort of skills which courses in critical thinking seek to develop" (p. 77). These include identifying standard fallacies and assumptions, and tracing relationships between premises and conclusions, all of which are said to transcend subject matter and to be applicable to fields as diverse as religion and physics (Siegel, 1990).

On the other hand, McPeck (1990) claims that because thinking critically always implies thinking about something, the knowledge and skills required for one thinking activity are different from those required for another. Further, he also said that critical thinking is not a content-free "general ability". There are no general thinking skills, as critical thinking involves knowledge and skills, therefore critical thinking varies from field to field. Similar to what McPeck asserts, Resnick (1987) cited in Stapleton, (2001) argues that the social context in which critical thinking occurs is not just a peripheral element, but an integral part of the activity. In conclusion, McPeck suggests that the application of critical thinking requires a certain disposition and knowledge of the field (McPeck, 1990).

Following what Siegel (1988) suggests, apart from the heated debate of the two conceptions, it is argued in this study that the two conceptions are complementary. In this sense, although this study rests firmly in the belief that critical thinking is generalizable, critical thinking (CT) is also believed to have a connection with specialized knowledge.

Departing from the explanations regarding the concept of CT above and the fact that scholars offer a variety of definitions for critical thinking, the definitions of critical thinking (CT) in this study, to follow Emilia (2005), is drawn from the work of both the general conceptionists like D Angelo, (1971); Moore and Parker (1995); Reichenbach (2001); Paul (2002); and the subject-specific conceptionists such as McPeck (1992) as follows:

- a. Critical thinking is the intellectually disciplined process of actively and skillfully conceptualizing, applying, synthesizing and/or evaluating information gathered from, or generated by, observation, experience, reflection, reasoning, or communication as a guide to belief and action (D Angelo, 1971).
- b. Critical thinking is the careful, deliberate determination of whether we should accept, reject, or suspend judgment about the truth of a claim or a recommendation to act in a certain way (Reichenbach, 2001, p. 19).
- c. Critical thinking is about X, manifests itself in connection with some identifiable activity or subject area and never in isolation (McPeck, 1980; see also McPeck 1990, 1992 cited in Emilia, 2010)

The definitions of critical thinking above also show their relatedness to the argumentative texts, e.g., exposition. As will be elaborated later, in an argumentative writing, one's critical thinking can be reflected in the arguments, facts, evidence, reasons, description or explanation which supports the side being argued, a certain position the writer shares (Chaffee et al, 2002). This indicates that an argumentative text is potential both to portray and improve one's critical thinking as has also been reported through studies conducted by Chaffee, (2000); Stapleton, (2001); Flores, (2006) and Alagozlu, (2007).

Components of Critical Thinking

In the literature, critical thinking consists of several elements which include *arguments, reasons, pieces of evidence (facts), refutations* and *conclusion* (Stapleton, 2001). Almost similar to what Stapleton proposed, Moore and Parker (1995) and Reichenbach (2001) also proposed several components of CT which include *arguments, the issue, reasons, facts* and *opinion*.

Other components of CT are *the issue, reason* and *refutation, Facts or evidence, Opinions* and *conclusion*. The issue refers to the main or primary question the writer asks and then goes to answer (Reichnbach, 2001).

Reason refers to the central point of an argument which provides support for claims (Toulmin et al, 1984) and refutation is “statements in which the writer responds to the opposing viewpoint in a way that shows that it is inadequate in some way” (Ramage and Bean, 1999). The last three components, as mentioned above, are facts, opinions and conclusion. *Facts or evidence* in this context is what actually happened and is true (Picciotto, 2000). *Opinions* as Picciotto adds, is something that is believed to be true, but it is still debatable (see also Emilia, 2005, 2009). Finally, *conclusion* refers to a statement or series of statements in which a writer sets out what he/she wants the reader to believe (Stapleton, 2001).

With regard to CT standards, there are seven important components emphasized in this study, these include; *clarity* in arguments, *relevance* in terms of data or facts used to support the claim, *accuracy* of the argument quality, *depth*, *breadth*, *sufficiency* in arguments and *precision* that is being specific about detail as suggested by theorists such as Chaffee et al (2002) and Lipman, (2003), among others.

One last important component of CT focused in this study is disposition. To follow Reichenbach (2001), CT disposition is defined as a tendency to act or think in a certain way. He further said that CT dispositions are essential to functioning adequately and smoothly in life and therefore forming good critical thinking habits, or dispositions, are indispensable to better cope with the world as a critical thinker (p.15). This indicates that an ideal critical thinker can be characterized not merely by his or her “cognitive skills” but also by how he or she approaches life and living in general (Facione, 2006). Among many dispositions of a critical thinker shared by experts like Ennis (1996), Reichenbach, (2001) and Facione (2006), the sorts of characteristics or dispositions used in this study is underpinned by the critical thinking dispositions shared by Ennis, (1987); Paul (1991); Hyland (1999) ; Reichenbach (2001); Lipman (2003), among others. It is argued that the following dispositions are related to those dispositions needed in writing.

- a. Use credible sources and mention or refer to them, take into account the total situation or context when they interpret something, keep their thinking relevant to the main point and avoid going off on tangents and look for alternative explanations, positions or arguments (Reichenbach, 2001).
- b. Take a position or a stance (and change a position) when the evidence and reasons are sufficient to do so (Hyland, 1999); to be systematic-following a line a reasoning consistently to a conclusion (Ennis, 1987; Beyer, 1997)
- c. Differentiating facts and opinions. This skill focuses on distinguishes between a statement based on fact (one that can be proved true) and a statement based on opinion (one that expresses how a person feels about something or what a person thinks is true) (Paul, 1991).

- d. Analyzing arguments; identifying conclusions, identifying issues, reasons; and seeing the structure of an argument (Ennis, 1987, Moore and Parker, 1995)
- e. Skills in organizing information in a text (Lipman, 2003)

In terms of the argumentative text which is used in this study to investigate students' critical thinking, these critical thinking dispositions, as mentioned above, are very important to create good argumentative texts. Good argumentative writings are indicated by the use of credible sources (Reichenbach, 2001). It is also indicated by the existence of the arguments supported by relevant reasons and facts which show the writer's position or stance (Chaffee et al, 2002). The absence of one of these dispositions e.g. *giving sufficient reasons*, results in unelaborated and unclear text. This suggests that relevant critical thinking dispositions help to produce a thoughtful and clear text (Chaffee et al, 2002).

Systemic Functional Grammar

The SFG is described as a means to examine a language as a meaning system (Emilia, 2005). This theory mainly investigates the choice of resources available in the language in order to convey meanings, their realizations at lexicogrammatical level and their implication on meaning creation. In addition, this theory is also a means for understanding why a text is the way it is (Martin et al. 1997; Emilia, 2005).

As mentioned in the literature, functional grammarians rely upon a concept that language is structured to make three strands of meaning: textual meaning, ideational meaning and interpersonal meaning (Eggin, 1994:3). First, textual meaning is defined as the way the text is organized as a piece of writing (Eggin, 2004). This meaning, as Gerrot and Wignell, (1994) said, is used to express the relation between language and its environment both the verbal environment (what has said or written before (co-text) and the non-verbal, situational environment (context). This meaning is realized in theme system, referring to what is foregrounded. Second, ideational meaning which refers to meanings about how we represent experience in language. This also concerns how language is used to organize, understand and express our perceptions of the world and our consciousness (Eggin, 2004). This meaning is classified into two sub-categories; experiential and logical meaning. The first is realized in **Transitivity system** while the latter is realized in **Conjunction system**. The last is the interpersonal meaning which treats the text as a dialogue (see Martin, Mahiessen, Painter, 1997:5). This meaning also concerns the use of language to set up and sustain interaction among speakers using the language and realized through the system of **Mood** and **Modality**.

Finding and Discussion

The detailed analysis and interpretation of the texts created by the students participating in the study revealed that although the texts showed some grasp of their respective thematic structure, and critical capacity, they were reasonably underdeveloped texts because the writers give limited arguments to support their thesis and most of their arguments are reasonably based on their own point of view which is indicated by the absence of pieces of evidence to support the arguments in almost all analyzed texts. In response to this, as will be elaborated later, scaffolding which takes in many forms like; modeling, discussion, explicit instruction and considerable teacher input to assists students toward competence in the genre is worth doing (Hyland, 2009).

As will be seen in a sample text described below, from the critical thinking (CT) perspective, the students have actually been able to show their “critical insight to the society” (Canagarajah, 2002, p. 100) which is about corruption cases and internet effects on children in Indonesia. However, these texts still show that the verbalization of the writers’ critical thinking is less sophisticated and explicit (Emilia, 2005) which is caused, as the interview data revealed, by the writers’ limited background knowledge about the issues (Reichenbach, 2001; Chaffee, 2000). In this sense, they seem to be unable to explicitly and clearly support and elaborate their thesis regarding the corruption issue and internet effects on children in Indonesia with some supporting reasons and facts (see Chaffee, 2000, 2002; Van Eemeren et al, 2002; Stapleton, 2001). This inability to explicitly show the critical insight occurred because the texts were written “at one sitting” (Gibbon, 2002, p. 67) while writing itself is “a recursive activity and not a one shot activity” (Emilia, 2009). In this case, the writers might have done better if they had had more time to find out relevant information related to the issue. As argued by Chaffee (2000, p. 158), rewriting is the key to good writing. Revision is the writer’s chief writing instructor and the writer learns to write as he/she writes and rewrites.

In terms of critical thinking disposition, results of analysis suggest that the students still need assistance in developing critical thinking dispositions, particularly, in terms of writing, such as (i) being well informed by mentioning credible sources; (ii) constructing argument systematically, following a line of reasoning consistently to a conclusion (see Zechmeister and Johnson, 1992) and organizing the information into meaningful clusters of units (sentences) (Lipman, 2003). Besides, these results also suggest that the students need more guidance to grasp some critical thinking standards in presenting ideas in the text especially “clarity” of the arguments given to support the thesis made, “relevance” of data and evidence used to support the reasons given, “depth”, “breadth” “sufficiency” in the arguments and *precision* (being specific

about detail) as suggested by theorists such as Chaffee et al (2002) and Lipman, (2003), among others. Moreover, this also shows the need for the students to develop their critical thinking, especially to do with the capacity to argue, to state opinions and stance explicitly and carefully (see Ennis, 1987). All these may also reflect the urgency to provide the students with a great deal of assistance in a writing process (Gibbon, 2002) and efforts to expose students in the site to some teaching programs with a view to improving their critical thinking in the future (see Chaffee, 2000; Emilia, 2005).

Sample of Text Analysis Written by the Low-achiever students

The text which is divided into numbered clauses given in Table 1.1 below was written by Dina (pseudonym) who is categorized as a low achiever student (GPA <3). In her text, Dina responded to an issue of corruption. She argued that the death penalty was effective to minimize the corruption cases in Indonesia. To find it easier to understand the text, some grammatical corrections, without changing the ideas within the text, are given in the brackets.

Table 1.1. Text Created by Dina, a low achiever student

Corruptors (corrupts) should be given the death penalty

Thesis

1. Corruptors should be given the dead penalty.

Argument

2. Many people suffered
3. Because (of) corruption.
4. Corruption is (a) trouble and (an) illness for the government
5. because every money that has government (that the government has)
6. will (be) cut for their self (themselves)
7. and make unbalances in government's wheels.
8. It make (s) broken law (it breaks the law),
9. and suffer people
10. and (cause) another illness
11. because (get) addicted to the corruptors (corruption).
12. They always do
13. if they have chance
14. and will hereditary (influence) the next generation.

Argument

15. that the corruption always make trouble in our country,
16. not only in but also out (of the) country itself
17. . It is the fact (that) Indonesia
18. becomes (a) corruption country.

19. It make (s) Indonesia still (a) development country
20. and does not go forward country.
21. The government can't building (build) good facilities to public places
22. because the money corruption (is corrupted).

Restatement of the Thesis

23. If the corruption stay (exist)
24. does not have building except corruptors itself (themselves).
25. So, the corruptors must be given the death penalty
26. to (so that) (it does not "harm") don't broken the next generations
27. and make the clearly (clear) government (make the clear government)

The Schematic Structure, Organization and Purpose of Text

Applying the model of exposition structure to the text written by Dina above, it can be seen that she has been successful in organizing her argument within the schematic structure as it is commonly understood (Love, 1999; Macken and Horarik, 2002). In the text, paragraph one presents the **Thesis** which introduces the writer's point of view about corruption which has been a national issue, *corruptors should be given the death penalty*. This also directly shows her "stance" or "position" and the **Argument** which support the thesis, *e.g. corruption is (a) trouble and (an) illness for the government, (it is) the trouble because every money that has government (that the government has) will (be) cut for their self (themselves) and (which) make (s) unbalances in government' wheels*. Given in the last paragraph, the **Restatement of the Thesis** amplifies the thesis given in the first paragraph of the text, *so, the corruptors must be given the death penalty (so that they do not break) to don't broken the next generations and make the clearly (good) government*.

In the case of the text written by Dina above, the writer highlighted the issue of corruption in Indonesia. She argued that corruption has been one of the main problems of the country which brings more harms than good for the society. The writer's thesis, *the corruptors should be given the death penalty*, which are supported by some arguments (to do with the poverty and stagnant development of the country) reveals her personal position. This shows the writer's attempt to persuade the reader that the death penalty is an effective way to free the country from the corruption. This is in line with the social purpose of the text one of which is "to persuade the reader to think and act in a particular way" (Joyce and Feez, 1998; Unsworth, 2000). The writer's concerns on the issue of corruption in the country and her way to persuade the reader through her proposal, indicates her critical insight toward a certain phenomenon in her society (Canagarajah, 2002, p. 100) and her deliberate determination to her claim

(Reichenbach, 2001). In this case, she believed that the existing law enforcement has not been able to “erase” or at least minimize the corruption. Therefore, the implementation of the death penalty, as she argued, is urgent. However, as can be seen above, the writer is making a *hasty conclusion* fallacy because the conclusion drawn (the corruptors should be given the death penalty) is not based on sufficient reasons and evidence (Toulmin et al, 1984).

In fact, while it shows some control of the over all generic structure (e.g. *thesis, argument, restatement of the thesis*), this introductory element is not completed with a sentence or a group of sentences which predicts a set of hyper-theme, the opening generalization in a paragraph which predicts the pattern of a clause themes and elaboration (Martin, 1992, p. 437; Coffin, 2000). The absence of this “macro-theme” makes what is to comment in the text unclear and not clearly-planned (Eggins, 1994: 305). In addition, in terms of ideas development, the writer is still unable to organize her ideas well that is proven by her inability to elaborate the topic sentence of the element like in, *many people suffered because (of) corruption*. In this case, the text could actually be more coherently structured and the fragmentation of some of the writer’s arguments could be more easily identified if the writer is able to structure her Point, Elaboration and Reiteration as suggested by Gerrot (1995). In terms of CT, the text makes little use of significant knowledge to support ideas with reasons and credible sources that can promote the writer’s arguments credibility (see Norris and Ennis, 1989; Chaffee, 2000; Diestler, 2001, among others).

The following section discusses the ways in which each of the various metafunctions is realized. This will be started by putting forward the textual metafunction which has to do with the overall organization and direction of the text. In the next part of this section, the discussions will be focused on the experiential, logical and interpersonal metafunction

Grammatical Analysis of Elements of Text 4.1.

Thesis Element

The thesis statement in this text uses an unmarked topical theme which makes clear the field under discussion, as found in, *corruptors should be given the death penalty*. As can be seen in the first two clauses, *corruptors should be given the death penalty; many people suffered because (of) corruption*, the writer, to some extent, seems to be unable to keep the cohesiveness of the clause because the second clause using the other unmarked topical theme (*many people*) does not carry the discourse forward (Eggins, 1994; Martin, 2001). However, although the writer fails to keep the cohesiveness at some point, she is actually able to keep the cohesiveness of each clause in another way by using conjunctions such as

additive conjunction (*and*) as in, *corruption is (a) trouble and (cause an) illness for the government* and causative conjunction (*because*) as in, *many people suffered because (of) corruption*. The student uses these two types of conjunctions to organize her text a series of two arguments, each of which includes a “ground” phase and a “conclusion” phase with *and* to tell the reader that these are additional information and within each argument she uses *because* to tell the reader that what follows is a reason (Butterworth and Thwaites, 2006). From CT point of view, although the use of conjunction *because* is inappropriate (*suffered* should be followed by the preposition *from*), the writer has actually made an attempt to create *the relevance and clarity* for the arguments given which are part of critical thinking standards (Chaffee et al, 2002). In terms of CT dispositions, the use of this conjunction indicates the writer’s attempts to follow a line of reasoning consistently to a conclusion (Ennis, 1987).

Experientially, the thesis element starts with a material process which is the type of process closest to action (Eggins, 2004; Martin, 1997) as can be seen in, *corruptors should be given the death penalty*. Other processes used are relational and mental processes which can be seen successively in the following examples, *corruption is (a) trouble*; *many people suffered* and *every money that has government (that the government has)*. The total of each process is presented in table 4.1.1 below.

Table 4.1.1 Process Type Used in the Thesis Element of text 1.

Process type	Material	Mental	Verbal	Relational	Behavioral	Existential
Subtotal	6	2	-	3	-	-

The wide use of material and mental processes suggests that this text is constructed with processes of being, particularly attributive ones and through relational process, the writer tries to define something which is an issue related to corruption in the country (see Eggins, 1994; Halliday, 1994; Martin, 1997; Emilia, 2010). The high proportion of relational processes also indicates that this text is descriptive in nature (Eggins, 1994) which indicates the existence of mixed genres (Knapp and Watkins, 2005). This text also shows human participants that did the processes of material (Eggins, 1994; Halliday, 1994; Martin, 1997). These identified processes (material, mental and relational) are appropriate choices for stating arguments in an expository genre (see Derewianka, 1990; Anderson and Anderson, 1997; Feez and Joyce, 1998). This shows the writer’s awareness to choose certain processes to achieve her purpose in writing the text.

In terms of participants, in this thesis element, the writer used nominal elements such as (*many*) *people* and *corruption* and two

pronominal elements such as *they* and *it*. The roles of participants occurring are relevant to the processes employed such as, *Actor* and *Goal* as in, *Corruptors should be given the death penalty*. This use of participants helps the writer to define the field of discourse more closely (Eggins, 2004). From CT perspective, this use of various participants shows the writer's awareness to keep the "clarity" of the field or issue being discussed and "precision", that is being detail about the participants involved in text. Finally, in terms of CT dispositions, the writer has shown her attempt to follow a line of reasoning consistently (Ennis, 1987; Beyer, 1997).

With regard to the circumstance, an element which is important to help to give additional information regarding the issue is also found in the text as in, *corruption is a trouble and an illness for the government*. Apart from the grammatical problem made, the use of this circumstance makes the clauses in this text denser and surely gives the text more written work nuances (Eggins, 1994; Christie, 2009). Besides, the use of these circumstances gives more precision and clarity to the meaning of the propositions (Chaffee et al, 2002; Lipman, 2003, Emilia, 2010, among others).

Interpersonally, in this text, the writer consistently uses declarative mood. All of the clauses are declarative which means that she places her readers as the recipient of information. In other words, she situates the readers in the potential role of acknowledger (Eggins, 1994; Halliday, 1994; Martin, 1997 and Mechura, 2005, among others). In this kind of clauses (declarative), no opportunities for negotiation of information are provided, not even a rhetorical question where there is at least "the illusion of a response" (Love, 1999). Through these, the writer is also creating a particular form of authoritative relationship with her readers (Eggins, 2004). However, an interesting fact is found in the last paragraph in which the pronoun "we" is used. The use of this pronoun addresses the reader in a personalized and familiar way (Schiroto and Yell, 1996 cited in Emilia, 2005). All these also indicate the writer's capacity to involve the reader in her text (Eggins, 2004).

In terms of modalisation, which is another important element in mood analysis (Eggins, 1994), the information provided in the thesis element comes from an objective source which creates a sense of confidence and certainty of opinion (Eggins, 1994; Love, 1999). This is indicated by the fact that most of verbs used in the text are unmodalised such as "make", "do", etc. However, the inability of the writer to support the information with sufficient facts or evidence, at the same time, shows that she relies more on her own opinion. This occurred, as the interview data revealed, because the writer did not read sufficient materials regarding the issue. As argued by Chaffee (2000), reading

critically is essential part of becoming an insightful thinker and a proficient writer. He also further said that reading critically also means thinking critically the information and its source.

Arguments Element

Textually, this new element is again started with an unmarked topical theme, as in, *many people suffered because of corruption*. Subsequent topical Themes are interesting because the writer employs several Textual Themes to direct the discourse forward as in *and (an) illnesses for the government and because the money that has the government (that the government has)*. These Textual Themes have been used by the writer to link clauses together and to carry the discourse forward (Emilia, 2005). In all, apart from the lack of elaborations, the writer has shown her attempts to build arguments and the connectedness among clauses within the text which also contributes to the clarity of the text.

Experientially, as can be seen in Table 4.1.2, the element used eight material processes as in, *they always do; it makes Indonesia still (becomes) a development country* which suggests that the writer has made an attempt to build aspects of the field. The writer also uses three mental processes of cognition as found in: *many people suffered; as we know*. Furthermore, the element also employs relational process as can be seen in, *corruption is a trouble*. This use of processes may indicate the writer's ability to represent a certain social phenomenon happening in the world around her. However, due to the lack of information about the issue, the writer was still unable to support her arguments with sufficient reasons and evidence which are actually important to show her critical insight toward the issue.

Table 4.1.2. Process Type Used in the Argument Element of text 1.

Process type	Material	Mental	Verbal	Relational	Behavioral	Existential
Subtotal	8	3	-	4	-	-

Interpersonally, the element uses some modality, realized in a modal verb: *the government can not build good facilities*. This use of modality shows, to some extent, that the writer's attempt at making careful judgment (Kress, 1985a). This also indicates that she has been aware of the careful use of language, which according to Niclerson, (1987) is one characteristic of a critical thinker.

Restatement of the Thesis Element

Textually, this element commences with a marked topical Theme, signaling a further new direction, this time realized in a dependent

clause: *if the corruption stay (still exist) ...* ...Subsequent Topical theme are marked and the element is of interest because the writer uses a textual theme to direct the discourse forward as in, *so, the corruptors must be given the death penalty*. These linguistic items help build the logical metafunction, constructing the concluding element of the text.

Looking at the experiential metafunction, as can be noted in Table 4.1.3, the element used only material process as in, *so, the corruptors must be given the death penalty*. This process is “ the type closes to action” (Hasan, 1985a, p. 40), and constructs a picture of a certain world, describing what has happened.

Table 4. 1. 3. Process Type Used in the Restatement of the Thesis Element of text 1.

Process type	Material	Mental	Verbal	Relational	Behavioral	Existential
Subtotal	5	-	-	-	-	-

Interpersonally, the element is quite forceful in its expression of opinion, apparent in the textual theme expressed in the material process *so, the corruptors must be given the death penalty* and the use of one instance of modulation shown in the same clause (*must*). From a CT point of view, this interpersonal theme indicates the presence of a stand point (Van Eemeren et al, 2002). This may also suggest that the student has a critical insight into social reality which is about corruption in Indonesia.

Overall, this discussion has shown that the text written by Dina, one of the low achiever students, has been constructed in three elements which are required in an exposition text: thesis, arguments and restatement of the argument. The **Thesis** element establishes the position to be adopted; the **Argument** element provides supporting arguments, though no evidence given in the text, and the **Restatement of the Thesis** which restates the position being argued. In this case, the student did demonstrate some understanding of the structure of the target genre and some sense of its social purposes. However, as discussed earlier, she was, in fact, still unable to provide sufficient information to develop her argument in any detailed way, and no evidence was given. Moreover, because of the lack of background knowledge about the issue and linguistic limitations, the writer did not show much evidence of aspects of CT investigated in this study, though she was willing to offer a critical insight that revealed a point of view about how the government of the day should ideally solve the corruption problems through the implementation of the death penalty. This suggests the necessity of encouraging students to read widely and extensively to develop their critical thinking and writing.

Students' Understanding of the Concept of Critical Thinking

Regarding students' understanding of the critical thinking concept, the interview data revealed that the students have actually shown a relatively clear understanding of the critical thinking concepts. According to them, critical thinking concerns the ideas realization given in such elaborated way that they could be clearly understood by others. It is also mentioned that critical thinking deals with the ability to deeply and reflectively thinking about a certain subject matter as can be seen in the following statements.

Critical thinking is a deep and reflective thinking. It is about the ability to give our personal ideas or arguments which are then supported by sufficient reasons. (Silvia, *translated version*).

Critical thinking is thinking about something from different perspectives so that we can give fair judgment (Tia, *translated version*)

From the two statements given by Silvia and Tia above, it is quite safe to assume that the students have actually had an understanding of the concept of critical thinking at some points. The first definition shared by Silvia, for instance, can be enclosed into Reichenbach's view that critical thinking is a reflective thinking and suspending judgment supported by evidence gathered from observation and reasoning (Reichenbach, 2001, p. 18). Moreover, Tia's understanding of critical thinking is in accordance with Chaffee (2000, p. 62). He said that a critical thinker is someone who is willing to listen to and examine carefully other views and new ideas. A critical thinker, as he further said, tends to be open-minded and seriously consider points of view of others rather than his own perspective or view.

The interview data analysis also shows that some other students comprehended almost the same ideas over their understanding on critical thinking. Critical thinking, according to them, is the way to analyze information, to support an opinion with relevant facts (Rizka, Meta, Sari). The students' conception on critical thinking is in line with what McPeck (1990) who said that people who think critically commonly think for themselves and they do not simply believe everything which they hear or read (see also Scriven and Paul, 1992). This means that the students, to some extent, have had an understanding toward the basic concept of critical thinking.

However, asked about their understanding of the critical thinking components, most students said that they have never heard about the term and could not mention even one of them. Only three students, Silvia, Mia and Dio were able to mention some essential components of critical thinking such as arguments, reasons, facts and opinions (Moore and Parker, 1995, Reichenbach, 2001, Diestler, 2001). This finding seems to be the reasons for why most of the texts as presented in section 4.2.,

were underdeveloped. In this case, the students' texts would have been clear and systematic if they had been familiar with those critical thinking components (Chaffee, 2000).

With regard to "the issue", one of the critical thinking components (Moore and Parker, 1995), not even one student was familiar. Although the students recognize the term, "the issue", none of them knew if this is part of the critical thinking components like admitted by Taya,

I am familiar with the word " the issue" but I don't know if it is part of critical thinking components (Taya, *Translated Version*)

Taya's comment is also supported by Mia who argued the importance of being familiar with each component of critical thinking to anticipate the reader's problem in understanding the text due to unclear statements or opinions provided in the text. These findings suggest that explicit teaching (Hyland and Hyland, 2006) or "direct telling" on the critical thinking components is vital (see also Emilia, 2005 for the same suggestion).

Asked about the critical thinking standard and dispositions, again, the students could not mention the concept. However, they said that *clarity* and *references* in their writing are important. This indicates that they have actually had awareness of making their writing clear for the reader and supporting their arguments with multiple perspectives (Chaffee et al, 2002; Lipman, 2003, Reichenbach, 2001). In other words, apart from their inability to show the "clarity" in their writing and some sorts of references, e.g., through quotation, the students seems to be aware of the attitudes and habits of an ideal critical thinker, as represented by Mia's comments below.

Well, in writing an essay especially an exposition writing, it is important for us to make our writing clear and refer to other references to support our arguments or opinions. (Mia, *translated version*)

What Mia said about the importance of references and supporting opinions with facts or examples indicate her awareness to use credible sources and refer to them and differentiate between facts and opinions which are part of critical thinking dispositions (Diestler, 2001; Reichenbach, 2001; Paul, 1991). From SFL perspective, Mia's comment is in line with one of the SFL notions which is called "Intertextuality". By this notion, a text created refers to other texts (Hyland, 1999) and students' use of language in making texts cannot be other than quotation of fragments of texts, previously encountered in the making of a new text (Kress, 2003, p. 6).

Those data presented above regarding students' conception of critical thinking, critical thinking components and dispositions may lead

to the conclusion that the students have actually had the understanding of the basic traits and skills of a critical thinker in which developing such attitudes and habits was significantly important in dealing with complex, ill-defined problems in this rapid pace of change era (Reichenbach, 2001).

Conclusion

The major conclusion of the study is that, in their texts, students have actually been able to show some aspects of critical thinking emphasized in this study such as arguments, reasons, facts and opinions in response to an issue happening in the society e.g., corruption in Indonesia. The students have also shown their attempt to keep some critical thinking standards such as clarity and sufficiency of the text they created, although still insufficient, by giving some supporting reasons and evidence. However, these texts still show that the verbalization of the students' critical thinking is less explicit due to their limited background knowledge in applying the critical thinking concept. In this sense, most of the students were unable to explicitly and clearly support and elaborate their ideas with sufficient reasons and facts from credible sources that can promote their arguments credibility. This findings support the previous studies concerning the students' critical thinking in EFL contexts like those conducted by Stapleton (2001), Alagozlu, (2007) and Flores (2008) as mentioned in Chapter Two.

From the linguistic perspective, students have been able to show their awareness of using various processes in building the field of knowledge especially material and mental processes which also indicates their awareness to create analytical texts (Emilia, 2005). However, the results of analysis also show that they have not been able to exploit various linguistic resources in their texts especially to do with textual and interpersonal metafunctions. Textually, the students have not been able to employ patterns of Theme progression (*the zig-zag pattern, the Theme reiteration, and multiple theme*) which are actually important to create a more coherent and cohesive texts (Eggins, 2004). Interpersonally, although the students have used various modality in their text which directly shows their care in expressing their ideas and opinion, this used of modality was undeveloped and less interactive because most of the texts only employed the declarative mood which simply functions to inform the reader (Eggins, 2004).

The findings gained from the interview revealed that the students were able to mention the purpose of the expository genre correctly. However, most of them have not been familiar yet with the concept of the genre particularly in terms of generic structure and linguistic features. This confirms the finding of the text analysis in which most of their texts were less coherence and explicit suggesting that they need to be taught the genre (text type) explicitly. In terms of critical thinking, it is found

that students have basically shown a relatively clear understanding on the concepts of critical thinking although in the text its verbalization is less sophisticated and explicit due to the limited knowledge on the issue they write and lack of knowledge in applying their critical thinking in writing. All these suggest that critical thinking should explicitly be taught to the students as will be elaborated in the following section.

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