CHAPTER V
FINDINGS AND DISCUSSION

This chapter presents the findings and discussion of the study based on the research questions. It is divided into three main sections. The first section presents and discusses the findings of the elements of critical thinking demonstrated in the students’ writing texts. The second section elaborates how collaborative writing helps develop students’ critical thinking. The last section provides the conclusion of the findings and discussion.

5.1 The elements of CT demonstrated in students’ writing texts

This section attempts to answer the first research question as posed in Chapter I. Findings revealed that the elements of CT consisting of the issue, arguments, facts, and opinions all appeared in the students’ texts. The CT dispositions demonstrated in the process of presenting the elements were also reflected in their writing. Table 5.1. (p. 82) presents the findings of the CT elements and CT dispositions which were also relevant with the CT theories proposed in Chapter II. Concerning CT dispositions, respecting others’ feeling and level of knowledge, (CT8), was not reflected in their writing since it could be indentified only through direct observation which is addressed in section 5.2.1. However, to make them intact, the disposition was included in the table. The detailed analyses and discussion of the students’ writing texts are presented in the following sections.

5.1.1. Data from students’ writing texts

This section presents the findings and discussion of CT elements demonstrated in the students’ writing texts. The summary of the findings is presented in last section of each text analysis. As aforementioned in Chapter III, three of seven groups’ texts are presented as the focus of analysis and discussion. The topics chosen concerned the issues about the students’ school life and real world issues, i.e. the school uniforms, the Red Zone Policy, and a national entertainment TV program. The texts were analyzed both in CT and the language features of the Discussion genre which were also related to CT. Both aspects of analyses were applied in each schematic structure of each text, i.e issue, arguments for and
against, and conclusion and recommendation. To maintain clarity, the analyses of CT elements and language features are discussed separately as outlined in the following sections.

Table 5.1. The Elements of CT and CT Dispositions in students’ texts

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5.1.1.1. Analysis and discussion of Text 1

Text 1, entitled “Should students wear uniforms?”, was written by Group #1. The text is displayed in Appendix 5a. Overall, all CT elements consisting of issue, argument, fact and opinion appeared in this text. Meanwhile, in terms of CT dispositions, attempting to be clear and stayed focused on the main point seemed to be the most frequently carried out by this group. However, they also attempted to be open-minded, to be well-informed, to seek alternatives, to offer arguments, to consider the situation, and made a decision. The following sections present detailed analyses in the sections of issue, arguments for and against, conclusion and recommendation.
5.1.1.1. Issue
5.1.1.1.1. Analysis of CT elements and CT dispositions
This group chose school uniform as the topic with the raised issue: Should students wear uniforms? In this issue, the students questioned whether or not wearing school uniforms was necessary or desireable. The issue came up as their concern about today’s phenomena of school uniforms which potentially invited a controversy, mainly among parents and schools.

In relation to the CT dispositions, their ability to identify and formulate the issue showed their attempt to challenge the existing practice of wearing school uniforms which has existed for years and to seek alternatives to answer the problem that lead to reflective scepticism (Brookfield, 1987; Reichenbach, 2001; Ennis, 1996).

This topic was relevant with their status as students who had direct experience and sufficient knowledge as the consumers of school uniforms so that they could employ the facts which revealed what actually happened (Cottrell, 2005; Emilia 2005), made the evidence strong (Reichenbach, 2001) and their statements more credible (Ennis, 1996:58).

In the issue, this group provided only short background information in the preview, yet it was stated explicitly so that it could lead the reader to the real problem caused by school uniforms. Moreover, they used a qualifier actually before the question to strengthen the importance of the problem and influence the readers (Reichenbach, 2001:98). In CT perpective, these acts showed strategies to increase the probability of a desirable outcome (Marine and Halpern, 2010; Halpern, 2014), that was to attract the readers to the issue and to persuade that the issue they raised was worthy of discussion (Reichenbach, 2001).

The students also confined the issue only in Indonesian context as they wrote: In Indonesia, it also has been a culture to wear uniform in schools. This indicated their awareness that a condition which works in a place might not be applicable in others. Ennis (1996:7) suggests that taking the situation into consideration such as physical and social environment, governments, institutions, etc, shows a CT disposition.
5.1.1.1.2. Analysis of language features

In providing the preview of the issue, the students used a passive construction correctly as stated in Sentence 1, *Uniform is commonly worn ....*. The *agentless passive structure* shows not only an *objective orientation* in expressing their ideas (Emilia, 2010:31), but also a *discourse strategy* used to emphasize uniforms as the direct object to be the focus of the discussion (Borjars and Burridge, 2010:229). The use of *modal verb should* in formulating the question at issue indicated that *judgement was involved* (Emilia, 2010:69). Besides, *should* can be used to formulate the question at issue since *should* indicates obligation, and obligation is debatable (Reichenbach, 2001). Two types of processes were used in the issue. First, the *material process* in passive and active structures, found in: *uniforms are commonly worn ....* and *should students wear...?*. Second, the *relational process* in *it also has been a culture....* A relational process was also identified in the transition *Here are some ideas* as the last sentence of the preview which led the reader to the next stages, namely arguments for and against. According to Emilia (2010:90), the processes helped to contextualize the issue of school uniforms. Another transition identified was an additive conjunction *also* (McCarthry, 2010; Emilia, 2010), used to add some information about the topic, making the sentences connected to each other and the idea be clear. In terms of CT, the language they employed in general represented their effort to be objective in expressing their thought and to be clear with what was being communicated.

Weakness was found in using plural forms of nouns. There was inconsistent use of plural nouns to talk about generic participants as represented by an example *Uniform is commonly worn in every school from kindergarten until senior high schools* as identity of the *school*. In Indonesia, it also has been a culture to wear *uniform in schools*. Actually, *should students wear uniforms?*

Basically, this group showed good comprehension of subject-verb agreement in the sense that they were able to apply the rules that in the present tense the form of a verb has to change according to the number of the noun or noun phrase of the subject (Borjars and Burridge, 2010:84), such as in *uniform-is, it-has, students-wear*, here *are-some ideas*. This inconsistency was probably caused by students’ carelessness in applying the rules of plural and singular forms that brought about grammatical inaccuracy.
In conclusion, eventhough the preview of this issue was presented briefly, the students had demonstrated their understanding about the issue, identified it, and formulated it explicity in their text. Given that the idea could be easily understood and that the issue was explicity stated, the issue was considered to have meet the standard of clarity. Yet, eventhough the students showed comprehension of the linguistic feature, the language used has not met the standard of grammar accuracy because of their careless use of the language, that is the inconsistent use of noun forms.

5.1.1.2. Arguments for
5.1.1.2.1. Analysis of CT elements and CT dispositions

In Text 1, the students presented arguments in favour in two paragraphs consisting of nine Statements altogether, proposed to build these arguments. Yet, the Statements did not consistently follow the expected structure of arguments as described in Table 2.1. Therefore, some identification was conducted by inferring from the Statements alleged as reasons offered (Ennis, 1996; Reichenbach, 2001; Browne and Keeley, 2007; Beyer, 1995), as well as trying to make sense of the Statements to interpret the writer’s intended meaning (Bradley, 2015:138).

The first argument proposed was displayed in the following structure
- Some students find that 1) uniform is necessary to avoid (social) jealousy, arrogance and most of all, the social discrimination among students.
- Teachers argue that 2) it is important to wear uniform to keep students dress at the same level.
- 3) Uniform here can be a social control in the school.

In this first argument, Statement 3) was inferred as the main point which concluded the first and second Statements. There was no logical indicators marking the Statements as a conclusion or reasons. So, the main point was inferred by finding the connection between the three sentences which also showed the flow of the writer’s idea. The connection was formed by some cohesive ties (Halliday and Hassan, 1976 in Chase, 2011:13; Alarcon and Morales, 2011:114), such as the repetition of the key word uniform in each of the Statements and the reference here in Statement 3) which referred to Statements 1) and 2). The phrase a social control in Statement 3) had to do with (social) jealousy, arrogance, and discrimination in Statement 1), and keep at the same level in Statement 2).
The inference showed that the absence of logical indicators made the argument ineffective and thus hard to be identified. This proved what Chaffee (2000, 2002) argues that the presence of explicit conclusion or reason indicator makes the argument effective.

In this first argument, the group gathered some opinions about the function of school uniforms as the evidence to support their conclusion. The opinions were obtained from some students and several teachers in the school. These sources had to do with uniforms, so they could be considered as credible sources (Cottrell, 2005; Reichenbach, 2001; Browne and Keeley, 2007). In CT perspectives, these efforts were considered as students’ attempt to be well-informed which characterizes critical thinkers (Ennis, 1996; Reichenbach, 2001; Willingham, 2007; Paul and Elder, 2006; Lipman, 1988 in Lai, 2011). Presenting the proofs from other school-mates and teachers’ points of view, also showed their openmindedness to listen to other opinions which indicates a CT disposition (Ennis, 1996; Reichenbach, 2001; Paul and Elder, 2007, Willingham, 2007).

In stating students’ opinions, this group used a quantifier some in some students. In CT perspectives, this expression signified the students’ carefulness by not generalizing that all students have the same opinions (Reichenbach, 2001; Emilia, 2010). Unfortunately, the opinions were not supported by more specific evidence or examples to make the ideas clear. Related to CT standards, even though the reasons were relevant to the subject of arguments, the argument had not fulfilled the standard of clarity and sufficiency.

The second argument was presented in Statement 4) as displayed below.

- 4) It also helps students’ behavior wise <students behave wisely>, for example; if they are going to do something naughty when they are wearing uniform, they will think twice.

In this argument, the main point inferred was uniforms help students behave wisely, which was clarified by an example of “behavior wise”. By Statement 4), it was very likely that the students meant to say It also helps students behave wisely, mainly when they are being outside the school, but they could not articulate the idea appropriately. So they tried to make it clear by providing an example taken from their own experience as students. Browne and Keeley (2007) argue that experience or examples from the real life can be used as evidence to “prove their point”. This effort indicated a CT disposition, in which the students employed a
strategy to make their idea clear by presenting proofs based on their knowledge and experience as the facts.

Concerning arguments, the example provided evidence which were relevant with the facts about uniform roles in most Indonesian schools. So, the evidence was considered as a reason supporting for their claim (Browne and Keeley, 2007; Reichenbach, 2001) and thus, an argument was offered.

Nevertheless, the argument was weakened by some inappropriate use of language. First, the use of vague word naughty. The word was vague in meaning (Reichenbach, 2001; Chaffee et al., 2002:173) since it referred to child’s disobedience of what is being told to, but it raises slightly humorous meaning when applied to adults or teenagers (Cambridge Advanced Learners’ Dictionary Sixth Ed.). In terms of CT vagueness is caused by careless use of language which leads to unreasonable actions (Reichenbach, 2001:118). Reichenbach further continues that vagueness both cannot and should not be avoided entirely, but a critical writer will be careful to see whether or not they have enough information before making a decision (p. 117). Vagueness was also found in the spoken expression think twice which was left unclear due to the absence of explanation or other specific information. The second weakness was caused by a grammatical error. Instead of saying It also helps students behave wisely, the students used the incorrect structure It also helps students’ behavior wise which should have been corrected in the revision phase.

Due to the weaknesses, the argument did not meet the condition for a sound argument, and concerning the CT standards, the argument was lacked of clarity and sufficiency.

The third argument was presented in Statements 5) as displayed below.

- Uniform is also worn because of 5) the Indonesian Government’s rule that compel the students to wear uniform.

In Statement 5), the students suggested the law imposed by the government as the evidence to support the argument. This Statement was a fact, and as addressed earlier, a fact can make a statement true (Reichenbach, 2001:80). Unfortunately, they did not elaborate it with specific information such as the number, the content of the law, or the consequence entailed if the law were not
carried out in order to convince its truth. So, this was considered as an incomplete reason (Browne and Keeley, 2007) and accordingly, \textit{it did not form a sound argument.}

\textbf{The fourth argument} was proposed in Statement 6) as follow:

- It is believed that by wearing uniform, 6) students will have sense of belonging to the school.

In Statement 6) the students employed their own experience to prove their point (Browne and Keeley, 2007). By the subject \textit{students} in this Statement, the students made an inductive reasoning by \textit{generalizing} from some \textit{students’ opinions} (Reichenbach, 2001; Cottrell, 2005). Unfortunately, they did not elaborate it or provide other evidence such as the size of the sample to make the opinion accord with the facts and to support the conclusion (Reichenbach, 2001:184, 268). So, the Statement was \textit{biased and less trustworthy} (Reichenbach, 2001; Browne and Keeley, 2007), and was considered as their own opinion which was based on the common sense about school uniforms.

\textit{The second part of arguments for} presented three Statements to be arguments. Statements 7) and 8) were joined with a coordinate conjunction \textit{and}, and Statement 9) stood as an independent clause. Statement 7) and 8) are displayed below.

- 7) The wearing of uniform is concerned with self discipline and 8) it can prevent unwanted cases such as students <students’> wearing miniskirt, \textit{hotpants}, tank top and another kind <other kinds> of mini dresses that can bring negative effects to the politeness culture.

In Statement 7) the students related uniforms to students’ self-discipline. Yet, similar to the two previous Statements, they did not elaborate it to clarify the connection of wearing uniforms and self discipline. Rather, they addressed the social function of uniforms (Statement 8) which was already discussed in the first argument. Meanwhile, the idea of self-discipline was closely related to good behaviour, so this Statement should have been the part of Statement 4) in the previous paragraph which said \textit{It also helps students behave wisely, for example; if they are going to do something naughty when they are wearing uniform, they will think twice.} Similarly, \textit{Statement 8) could have been used to elaborate Statement 2): Teachers argue that it is important to wear uniforms to keep
students dress at the same level, and to support the conclusion that Uniforms can be a social control in the school. Therefore, these Statements were ineffective and considered as a description that should have been used to elaborate the previous arguments. Accordingly, these Statements did not establish an argument.

Statement 9) was expected to form another argument.
- 9) Uniform helps students remove their focus from the outward appearance.

In Statement 9), the students suggested another advantage of uniforms that uniforms help students focus on their study rather than on their outward appearance. There was no evidence supporting the Statement nor explaining why or how it could be. Therefore, this Statement could not be accepted as a reason and was considered as “only an opinion” (Cottrell, 2005; Browne and Keeley, 2007). It followed that there were no arguments established by the Statements in the third paragraph. Further, connected to the ideas of arguments for, the Statement should have been located after Statement 4) in the previous paragraph. This poor organization indicated students’ inability to identify and classify the evidence or information which was caused by disorganized ideas (Chaffee et al., 2002; Emilia, 2010 citing Norris and Ennis, 1989; Reid, 2002).

5.1.1.2.2. Analysis of language features

The Statements in this stage were presented both in active and passive structures. The active structure used to show objective expressions was realized in mental process in Sentence 5: Some students find that ..., and in verbal process in Sentence 6): Teachers argue that .... The active structure emphasized that the subjects plaed the role as the participants responsible for the processes (Emilia, 2010:31; Reichenbach, 2001). The expressions also showed CT dispositions that there was an inquiry conducted prior to writing to discover information objectively from the two sources (Emilia, 2010), which indicated the students’ efforts to be well-informed as well as to be objective in viewing an issue and gathering relevant information before proposing an argument.

Another active structure realized in material processes was displayed in Sentence 8: It also helps students..., and Sentence 10, in relational process, ... students will have sense of belonging to the school. Passive structures were found in Sentence 9 in Uniform is also worn because of ... and in Sentence 10, It is
believed that... which helped structure the text (Emilia, 2005, 2010). In Sentence 10, they showed a progress in language competence by demonstrating their ability to employ an **impersonal passive construction**, which characterized a written discourse (Emilia, 2010:31; Eggins, 2004). This progress indicated the students’ ability to express their thought objectively by using the **mental process clause it is believed**. In **CT point of view**, being objective means involving as little judgement as possible in order to help the readers sense an object or situation as it is (Chaffee et al, 2002:218).

**Related to the learning process**, this ability was believed to be resulted from their previous learning experience with the new passive construction taught in the **diagnostic writing activity**. With the development, it is expected that they can develop their ability to use other similar impersonal passive forms in their compositions (Emilia, 2010).

Regarding modality, the use of **modal verbs** was found in Sentence 8, 10, and 11. The use of modal verb **will** in they will think twice... and students will have sense of belonging... showed their centainty of the realization of the expected situation in the future (Hewings, 2002:36) since they had had an experience with this. Whereas the use of **can** in affirmative sentences like it can prevent unwanted cases... and ...that can bring negative effects... was meant to talk about a general possibility of the Statements to happen (Hewings, 2002:19), but not a certainty. The use of **can** indicated students’ awareness that their statements were not a promise that would give the same result (Reichenbach, 2001:104) and might not work in different situation or school culture (Ennis, 1996). In **CT perspectives**, this attitude characterizes critical thinkers, who always take into account the total situation when interpreting and deciding something (Ennis, 1996; Reichenbach, 2001). Meanwhile, concerning **grammatical accuracy**, no false forms were identified in the sense that they more carefully applied the rules that modal verbs could only be followed by a base form, as pointed out in the teaching program.

Another linguistic feature analysed was the use of **transitions**, or logical conjunctive relations. In this text, only four **transitions** were indentified in building arguments, namely **also**, which was used to link the argument to the previous one like Sentence 7 to 8 and 8 to 9; **for example**, to clarify the idea in the previous
sentence; *if* to indicate a condition, and *when* to indicate the time. This indicated that the students had understanding of employing the correct transitions to build the *clause of elaboration*, with *for example*, *clause of extension*, with *also*, and *clause of enhancement*, with *if* and *when* (Emilia, 2010:29; McCarthy, 2010; Eggins, 2004) to improve the quality of their writing.

However, apart from the conjunctions, the students did not employ the transitions to link one sentence to another. For example, there was obviously no transition word used to link the sentences that built the first argument, neither were from Sentence 9 to Sentence 10, 11, and 12, so that each sentence looked hanging and stood separately from one another. With regards to argumentative writing, transitions not only guide the readers through the arguments, but also help ensure that the students have an argument (Alarcon and Morales, 2011:115), and indicate conclusion or reasons which can help students make effective arguments (Chaffee, 2000, 2002). Referring to these theories, it was evidenced that the frequent absence of transitions contributed to the weak, ineffective, or unsound arguments as well as to the poor standards of reasoning.

5.1.1.1.3. Arguments against

5.1.1.1.3.1. Analysis of CT elements and CT dispositions

There were three arguments against presented in this stage. This stage commenced with a transition *on the contrary* which signalled the presence of opposite points of view towards the issue (Emilia, 2005, 2010) as the excerpt displays.

- On the contrary, some parents believe that 10) uniform should <can> save money because 11) they do not need to buy expensive clothing.

However, this transition was misleading since the Statement following it did not present any evidence against the issue. Instead, it presented an *informative Statement* about parents’ beliefs of a good possibility that might happen by students’ wearing school uniforms. Such a Statement did not need any defense as an argument (Reichenbach, 2002:145). Therefore, this Statement was considered as only an introduction leading the reader to the arguments.

Arguments against were identified in these Statements:

- But nowadays, 12) schools makes uniform as a business field.
- For example; 13) a school urges students to buy new uniform every time a new school year starts, or unnecessary uniform like extracurricular uniform.
Along with that, 14) uniform sometime <sometimes> seems ‘too much’: belt, vest, socks, and even emblem. 
15) Those accessories are not necessary, and 16) they do not have to do with the learning process.

The first main point was inferred in Statement 12), schools make uniform as a business field. Despite the absence of conclusion indicators, the use of contrast conjunction but with specific time nowadays represented the presence of the main conclusion initiating the opposite points of view towards the issue. The conclusion was supported by some relevant facts obtained from the students and their relatives’ experience with uniforms in different schools as stated in Statements 13) and 14). So, Statements 12) to 14) constructed an argument. The evidence provided here was a fact since it revealed “what actually happened” (Emilia, 2005; Reichenbach, 2001) with uniforms selling in some schools.

As formerly addressed, facts can form strong reasons. However, the reason was weakened by the careless use of language (Reichenbach, 2001). First, the students made a generalization (Reichenbach, 2001:268) with the expression schools make uniforms as a business field. By this Statement, the students did not think of some exception that some other schools might not have sold uniforms. As previously discussed, generalization should meet a quality of sample to be accepted as an argument (Reichenbach, 2001:203; Cottrell, 2005:129). Secondly, the use of qualifier seems (Reichenbach, 2001:98) and the intensifier sometimes (Reichenbach, 2001:99) in ... uniform sometimes seems too much indicated the students’ hesitancy in putting forward their opinion, which accordingly weakened the argument (Reichenbach, 2001).

Another unstated argument was built by Statements 15) and 16) as the students’ evaluation of “the excessive uniforms’ accesorries”. The unstated conclusion (Ennis, 1996; Reichenbach, 2001; Browne and Keeley, 2007) was identified in Statement 15): Those accessories are not necessary. It was followed by and they do not have to do with the learning process (Statement 16). Following the ideas of the writing, Statement 16) should have been the reason supporting the conclusion. Yet, instead of employing the reason indicator because, the students used a coordinate conjunction and so that the argument offered is ineffective (Chaffee, 2000, 2002).
This argument was also weakened by the use of emotive language (Reichenbach, 2001; Cahffee et al., 2001; Cottrell, 2005) unnecessary which made the Statement sound emotional and biased (Reichenbach, 2001), or lack of reasoning (Cottrell, 2005:117). Chaffee points out that emotive words commonly indicate personal opinions rather than facts. It was likely that the students judged it only from their point of view as students and they did not try to find the true information from the school or teachers’ side who might have had some reason with extra uniforms and “the accessories”. Thus, this attitude showed that they did not judge or evaluate something based on careful consideration (Fisher, 2001; Ennis, 1985, 1993).

The last main point of argument against was presented in two Statements.

17) Students sometime sometimes do not want to wear uniform because 18) they see that their teachers only wear uniform for flag ceremony.

The reason indicator because placed before Statement 18) indicated that the other part of the sentence (Statement 17)) was a conclusion (Ennis, 1996) and thus, an argument was offered. The reason was a fact for some schools, and true at least in the students’ schools. Nevertheless, the students did not provide adequate information to make the reason relevant and strongly support the conclusion. Moreover, the reason offered sounds emotional. It was not because seeing the teachers wear uniforms only in the flag ceremony that caused the students’ reluctance to wear uniform, but rather because there is no role model from the teachers. The shortcoming of this argument was also caused by the intensifier sometimes, making the Statement sound less important because it meant that at another time such a condition did not matter for the students, so that it was not worthy discussing (Reichenbach, 2001). Another weak point was that this idea did not answer the question at the issue inquiring whether or not students should use uniforms. So, the reason was unacceptable and irrelevant and the argument was invalid (Chaffee, 2000, 2002). In terms of the standards of reasoning, the argument was lacked of clarity, accuracy, and relevance.

5.1.1.3.2. Analysis of language features

Compared to arguments for in the previous paragraphs, the ideas presented as arguments against were more easily followed and understood with the presence of
the correct transitions or conjunctions that linked one sentence to another, enabling the readers to connect the parts of the sentences and identify arguments. This was relevant with the theories that conjunctions organize and manage the discourse (McCarthy, 2010:49), guide the readers to follow the students’ logical flow of thought (Alarcon and Morales, 2011; Emilia, 2010), and help the reader ensure the presence of arguments (Alarcon and Morales, 2011:115).

The transitions employed in this stage included basic conjunctions but, or, and and which were used to build the clause of extension; for example and along with that to clarify the previous sentences which meant to build clause of elaboration (Emilia, 2010). Beside the transitions, the use of accurate anaphoric reference such as pronouns they and their in sentences 18 and 19, and the demonstrative that in the transition along with that, also contributed to the cohesiveness of the text (McCarthy, 2010).

In presenting arguments against, the students expressed their thoughts in active structures. There was no passive structures found in this stage, but they kept maintaining the objectivity of their Statements as demonstrated in Some parents believe that uniforms…. and in For example, a school urges students to buy uniforms... In the first example, the subject some parents and mental process believe showed that there was some research, at least inquiries about parents’ opinion, conducted before writing (Emilia, 2010). Providing elaboration with the transition for example followed by verbal and material processes like in A school urges to buy..., indicated that the students not only told the readers but also showed them (Chaffee et al., 2002 also cited by Emilia, 2010) beside to report an event which was obtained from some students’ experience (Gerot and Wignell, 1995:63). Unlike in the pro argument section, the students were more careful in using the language. The use of quantifier some indicated the students’ carefulness not to generalize the subject which was important in proposing an argument (Reichenbach, 2001; Emilia, 2010).

Referring to CT dispositions, such attitudes demonstrated open-mindedness as well as efforts to be well-informed by willing to listen and consider different points of view (Ennis, 1993, 1996; Reichenbach, 2001; Paul and Elder, 2007; Willingham, 2007). Apart from mental and verbal processes, the
text involves material process such as *make, buy*, and *wear* to show the process of doing and happening (Emilia, 2010, 2012; Gerot and Wignell, 1995:65); relational process like *seems* and *are* which indicates the process of being (Emilia, 2010, 2012; Gerot and Wignell, 1995:67) and behavioral process *see* in the last Statement to show the existence of a conscious being involved in the proof given (Gerot and Wignell, 1995:61). The presence of various processes in the text signified students’ understanding in writing the Discussion genre as taught in the teaching programme which also indicated their development in writing ability (Emilia, 2010:94). Related to the teaching program, the success could be the evidence of the students’ understanding of the linguistic features that were explored while reading the model texts in the Modelling stage as indicated in Chapter IV section 4.3.2.

Concerning modality, it was found only in Statement 10) .... *that uniforms should save money*.... in which the students used modal verb *should* to address the ideal condition (Reichenbach, 2001:104), that was what would be good if students wore uniforms. The other Statements were realized in affirmatives without modality, marking the students’ determination (Reichenbach, 2001:104) or assertion (McCarthy, 2010:85) with their thought. An example was obviously seen in Statement 12: *But nowadays, schools make uniforms as a business field*. Thie Statement formed a strong claim, and a strong claim indicated students’ ability to take a position required in writing an argumentative text. Taking a position also means making a decision which involves careful and reflective thinking (Ennis, 1985, 1996; Fisher, 2001; Xu, 2011).

5.1.1.4. Conclusion and recommendation
5.1.1.4.1. Analysis of CT elements and CT dispositions
As the last structure of the Discussion text, the conclusion tells the reader the position held by the writer. It also presents a logical conclusion or the final recommendation of the discussed issue (see Table 2.1 in Chapter II).

The final conclusion and recommendation of Text 1 are presented below:

1. Based on the arguments above, we **conclude** that the purpose of uniform is to make student find a way to express themselves creatively rather than through their clothes, such as through the art, music, personality development and academic achievement.
2. Even there are some negative arguments; there are still a lot of positive points.
3. Understanding all the arguments; pro and con, we believe that it is important for students to wear uniform.

The use of transition *Based on the arguments above* in this conclusion stage suggested the closure of arguments (Emilia, 2010:98). The expression with the logical indicator *we conclude*, was identified as a conclusion. Nevertheless, the indicator was misleading since it was not followed by the conclusion that answered the question at the issue. Instead, it stated what they finally learnt about the purpose of school uniforms that could have been the recommendation. The real conclusion, that was the statement answering the question at issue, was found in the last sentence: *Understanding all the arguments pro and con, we believe that it is important for students to wear uniform*. This indicated that the students misunderstood the meaning of conclusion as described in the schematic structure in Table 2.1. and Table 2.2, that this element should present a logical conclusion that answers the question at the issue discussed as taught in the the Modelling stage (4.3.2). Therefore the conclusion did not fulfil the standard of clarity and logic in writing (Paul and Elder, 1996; Ennis, 1996; Emilia, 2005; Cottrell, 2005).

However, apart form the weakness, the students had shown their effort to take a position as found in the conclusion *Understanding all the arguments, we believe that it is important for students to wear uniforms*. From CT perspectives, this Statement indicated the students’ ability to make a decision, after reflecting their thought as shown in Sentences 19 and 20, and evaluating the pro and con arguments as critical thinkers typically do (Ennis, 1985; Paul and Elder, 2006; Willingham, 2007; Reichenbach, 2001, Halpern, 2014). This was also relevant to Ennis’ (1996) concept of CT i.e. “reasonable and reflective thinking focused on what to believe and do”.

5.1.1.4.2. Analysis of language features

In terms of linguistic features, the students showed their certainty and commitment in taking their position towards the issue by using subject oriented statements with the plural first personal pronoun *we* in active structures like *we conclude* and *we believe* (Emilia, 2010:31). The expressions also indicated that the students “emphasised the point” (Eggin, 1994 and Ravelli, 2000 in Emilia, 2010:98), that is required in the Discussion genre.
Concerning the process, besides mental process in we believe, the students employed verbal process in we conclude, material process such as make, express, wear, and relational process with is and are. As formerly addressed, the presence of the processes above indicated students’ improvement in writing ability as the result of their learning to write and research (Emilia, 2010:94). The progress was also indicated by their ability to maintain cohesiveness of the text and showed the logic of their idea by employing some transitions (Emilia, 2010; Alarcon and Morales, 2011) like Based on the arguments above, even (though) there are ..., and understanding all the arguments, a coordinate conjunction and, and such as to clarify the previous Statement. Yet, they misused the word even rather than even though to form a concessive clause: Even there are some negative arguments,... which also showed carelessness of using the language (Reichenbach, 2001).

5.1.1.5. Summary of the findings of Text 1
The students of Group #1 had shown their ability to identify an issue and formulated it explicitly in the correct language. They also showed their ability to offer three arguments for and three arguments against by providing relevant facts and opinions. They had shown their comprehension and ability to apply the language features of the Discussion text. Yet, overall, their arguments were weak since they did not satisfy the standard of clarity. In terms of CT dispositions, attempting to be clear with their thoughts and to keep being focused on the main point were the activities the most overtly carried out among other dispositions. In terms of linguistic features, the students had shown comprehension on the language features of the genre taught and able to use it in their writing.

5.1.1.2. Analysis and discussion of Text 2
Text 2 is displayed in Appendix 5b. It is entitled “Do street vendors need to be relocated?” It was written by Group #6. In this text, the issue was explicitly formulated in a direct question. Arguments with the elements of facts and opinions were also identified. In terms of CT dispositions, trying to be well-informed, to be open-minded and to keep focusing on the issue discussed dominated the CT dispositions. However, they also attempted to offer reasons and
seek alternatives, considered the situation, and finally made a decision and offered a recommendation. Detailed analyses are presented in the following discussion.

5.1.1.2.1. Issue

5.1.1.2.1.1. Analysis of CT elements and CT dispositions

Slightly different from Text 1, in Text 2, the group addressed the topic of Red Zone policy which came up as their concern about what was going on in some areas in Bandung, mainly around their school’s environment, which happened to be designated as the Red Zone area. In CT perspective, their reaction indicated their scepticism to the government’s policy as well as their attempt to seek other solutions (Brookfield, 1987:9).

The preview of the issue is displayed below.

1. Most of the big cities in Indonesia have a rule which forbid <forbids> the street vendors from selling the merchandise at some location <locations>.
2. They have a name for this location.
3. In Bandung, it is called Red Zone.
4. The government makes <enforces> the Red Zone policy to forbid <forbids> the street vendors from selling their products on the side walk <sidewalks>.
5. One of the government solution <solutions> is to relocate them, but there are many rejections among <from> them and the people.
6. So, do street vendors need to be relocated?

Following the students’ idea, it was identified that the topic of this issue was the Red Zone policy, and the main issue was inferred to be whether or not the Red Zone policy should be enforced. The indicator so indicated that Statement 6) was the conclusion. It pointed out that the main question the students wanted to address was whether or not the street vendors need to be relocated, of which the topic was the relocation of street vendors, and not the Red Zone policy. This issue was formulated explicitly in a direct question Do street vendors need to be relocated? and placed at the end of the paragraph and in the title of the text (Reichenbach, 2001; Browne and Keeley, 2007). Yet, the different conclusions caused different focus of discussion. The relocation of street vendors concerned with one of the measures taken to enforce the Red Zone policy, whereas the Red Zone policy issue dealt with the the regulation of trading prohibition in certain areas. This might have raised confusion among readers but the students did not seem to be aware of this. In addition, there was also a false Statement identified in Sentence 4. According to the Regional Regulation No. 4/2011, The Red Zone
Policy is meant to regulate or to control the street vendors’ trading areas in order that the city become more tidy and cleaner, whereas the students’ idea was to forbid street vendors to sell their merchandise at certain places, which was, indeed, one of the measures taken in the policy.

This indicated that the students were unable to identify the main issue which was probably caused by inadequate background knowledge and understanding of the policy since they did not carefully read relevant data required. Thus, this proved that “knowledge underlies all critical thinking” (Reichenbach, 2001:31). Eventhough students could formulate the issue in the correct language, in terms of standards of reasoning (Paul and Elder, 2006) the issue was lacked of clarity in the sense that it was not clear whether the students wanted to discuss the relocation problem or the enforcement of the policy. The issue also lacked accuracy due to the inaccurate information that might have been misleading.

However, by the phrase In Bandung,..., they showed their awareness that in interpreting this policy, they had to consider the situation (Ennis, 1985, 1996; Reichenbach, 2001) since it might have specific names as well as bring about different social impacts in different places, so that they confined and focused the issue only in the city which they lived in and knew well.

In connection to the teaching program, this awareness was believed to come up as the result of their learning through the scaffolding, in which the teacher gave some guiding questions to direct the students to the goal as an element of scaffolding, like “Are you sure all big cities in Indonesia apply the same policy?” as indicated in section 4.3.5 of Chapter IV. Thus, this evidenced that scaffolding can push the students beyond their current abilities and level understanding in which learning occurs and enable them to internalize new understanding (Hammond & Gibbons, 2001:15).

5.1.1.2.1.2. Analysis of language features

Compared to Text 1, Text 2 had a better organization of idea so that it could be followed more easily. It was caused by the students’ ability to build cohesiveness through the use of reference items consisting of pronouns (they, their, them, it), demostratives (this), and articles (the) (McCarthy, 2010:35) as shown in underlined parts:
Most of big cities in Indonesia have a rule which forbids the street vendors from selling the merchandise at some locations. They have a name for this location. In Bandung, it is called Red Zone. The government makes the Red Zone policy to forbid the street vendors from selling their products on the sidewalks. One of the government solutions is to relocate them, but there are many rejections among them and the people.

Concerning the linguistic features, they employed both active and passive constructions to present the preview of the issue objectively. The use of unconcious subjects big cities and government solutions indicated that there was research conducted prior to writing and conscious subject, the government shows that the subject was responsible for the actions. The objectivity was strengthen by the relational processes of being and having employed in almost all sentences such as have, is, are, creating relationships between elements of experience (Emilia, 2010:25). Other identified process types were material process: sell, makes (enforce), forbid, relocate(d), and verbal process called,. As the above-mentioned, the existence of various process types signified the students’ writing capacity resulted from the process of learning to write which had enabled them to hear other voices and to incorporate them in their writing and thinking (Emilia, 2010:94 citing Adam and Artamewa, 2002:195). In relation to CT, their efforts to be well-organized and objective in expressing their thought about an issue could be considered as their attempts to be clear and open-minded, the typicality of critical thinkers’ dispositions.

5.1.1.2.2. Argument for
5.1.1.2.2.1. Analysis of CT elements and CT dispositions
Compared to Text 1, the arguments in Text 2 were more easily identified since they employed logical indicators characterizing the existence of arguments (Chaffee, 2000; Chaffee et al., 2002; Reichenbach, 2000, Browne and Keeley, 2007). This group employed mainly the argument indicator because that indicates reasons. There were three arguments in favour proposed to support the issue questioned by the students (Do street vendors need to be relocated?). The following excerpt was taken from the element of arguments in favour.

- The pro side/sides> claim that 1) the relocation will make the city look more tidy because 2) street vendors often use the side walk <sidewalks> and even some part of the main road<roads> which cause a traffic jam.
In the first argument, the conclusion was identified in Statement 1), the relocation will make the city look more tidy. The reason indicator because (Chaffee, 2000; Reichenbach, 2001; Browne and Keeley, 2007; Ennis, 1996) before Statement 2) indicated that a reason followed to support the pro sides’ claim about the issue. The reason offered in Statement 2) was a fact, and this fact could make the reason true (Reichenbach, 2001). Unfortunately, this argument was not elaborated by adequate information such as examples of the impact of relocation in some locations to make the fact strong evidence. So, this argument is considered weak, and did not satisfy the standards of clarity, accuracy, and sufficiency.

The second argument for was found in Sentence 2 as seen in the excerpt:

3) It can also makes the city looks<look> [more] clean <cleaner> because 4) one of the reasons for <of> the lack of cleanliness is the wastes from the street vendors.

Statement 3) was identified as the conclusion of the argument, supported by Statement 4) as the reason. The students showed the reason clearly by using the reason indicator because that contributes to an effective argument (Chaffee, 2000) 2002). Stating that One of the reasons of the lack of cleanliness also showed the students’ awareness not to be stereotypical with the street vendors (Reichenbach, 2001:129). However, they could not use the appropriate language to express their idea so that the Statement was redundant and unclear. The students could have made Statement 4) more efficient to persuade the readers. For instance:

because there will be no waste recklessly left anywhere from the street vending activities rather than because one of the reasons for the lack of cleanliness is the wastes from the street vendors.

Therefore, the reason was considered insufficient and inaccurate, and consequently weakened the argument (Browne and Keeley, 2007; Hughes and Lavery, 2015). This weakness followed that the argument did not meet the standard of clarity due to inaccuracy and insufficiency of evidence in the sense that the students did not carefully employ the relevant facts and adequate information to support their argument.

For the last argument for, the students suggested another thought dealing with the payment of taxes as the excerpt shows.

- Another issue is about the payment of taxes.
Before the relocation, 5) they were selling <sold their things> illegally and paid <paid some illegal “tax”> to the non-governmental person <persons>, but with this relocation 6) the taxes are obtained by the government.

Unlike the two previous arguments, there were no argument indicators identified in the sentences. Yet, it could be inferred that the main point was relocation raises the revenue for the government. However, the students did not assert their thought clearly. Instead, they provided a description telling the contributions of the relocation to the government’s revenue through the legal tax payment. Reichenbach (2001:145) and Cottrell (2005:54) argue that descriptions are intended to tell the reader what things are like to be accepted by the reader, but they were not presented as reasons, and thus, they did not need defense. Therefore the Statements above did not offer an argument.

Nevertheless, despite their inability to build arguments, to some extent, the students had shown their attempts to be well-informed and to be open-minded by interviewing some consumers to obtain accurate information including judging credible sources which indicated CT dispositions (Ennis, 1996; Reichenbach, 2001; Willingham, 2007; Paul and Elder, 2006; Lipman, 1988 in Lai, 2011).

On reflection of the teaching program, it brings an implication that the teacher needs to explain the concept and structure of arguments more clearly and pay attention to the potential problems in writing argumentation like the use of description or explanation as arguments which were also found in the texts written by Group #4 and Group #5.

5.1.1.2.2.2. Analysis of language features

To present the arguments in favour, this group mostly employed objective expressions in active constructions and material processes which tell the doings and happenings in the world (Emilia, 2010:24; Gerot and Wignell, 1995). The conscious participant subject with verbal process was found in the opening of this stage – The pro sides claim that.... which shows the participants’ responsibility for the verbal process (Eggins, 2004:235; Emilia, 2010). Other objective expressions were realized in the use of the third person subject they in they sell ...., that indicates the students’ detachment to what they are saying and leave the reponsibility to the subject (Halliday, 1994a; Fairclough, 2003:171 in Emilia,
The students also employed non-human subjects and material process as the result of some research conducted prior to this writing activity like *it can also make the city ... and the taxes are paid to the government.*

Concerning *modality,* the students employed modal verbs *will* in ... *the relocation will make the city look more tidy* to show their confidence of the result of relocation, and *can* in *It can also make the city look cleaner* to show a possible result. They were appropriately used since the situations described with the modals showed the *facts.* The choice of modal verbs indicated the students’ carefulness in claiming something (Ennis, 1996; Reichenbach, 2001), that was resulted from their attempt to be well-informed.

However, the students showed their *incompetence and inconsistency in using the correct agreement of modal and verb patterns* as shown in Statement 3) above. Modal verb *can* was followed by *verb with s, makes,* instead of base form *make,* and then followed again by the *verb with s looks,* instead of the base form *look.* Yet, they used the structure correctly in Statement 1) *will make.* Frequent grammatical errors were also found in *subject-verb agreement* like in *the pro side claim that ..., and ... some part of the main road which cause a traffic jam.* But, at another time, the students used it correctly like in *street vendors often use ...*

Related to the same result of the diagnostic writing, this inconsistency was likely to have been caused by the students’ ignorance in using the target language since they focused more on the content. Eventhough these errors did not essentially hamper the readers to get the intended meaning, sloppy or careless use of language might lead the writing to ambiguity or various interpretations that should be avoided in argumentative discourse (Reichenbach, 2001:108; Chaffee et al, 2002). This also brings a *teaching implication* that the teacher needs to emphasize the correct and consistent use of subject-verb agreement to develop her students’ writing accuracy and quality in the future teaching program.

Another feature observed was the use of *conjunctions,* i.e. *causal conjunctions, because* and *temporal conjunction before* to build the *clause of enhancement* such as in *because street vendors often use the sidewalks,* and *Before the relocation, ... Additive conjunctions and, but, also* were also employed to build the *clause of extension* and express the relation of addition to the meaning...
of other clauses (Emilia, 2010:30). The ability to employ various conjunctions indicated their language development mainly in building a cohesive text as well as conveying logical ideas of the text as the result of their learning experience in the Modelling stage (section 4.3.2 of Chapter IV). It followed that the stage was used effectively so that it reached its aim that is to introduce and familiarize the students with the text in focus (Emilia, 2010; 2011)

5.1.1.2.3. Arguments against
5.1.1.2.3.1. Analysis of CT elements and CT dispositions
This stage began with the transition on the other side to signal a shift to the opposite idea. There were two arguments against presented. The first argument came from the street vendors’ points of view as seen in the excerpt below:

- On the other side, 8) this relocation is not fair for the street vendors,
- For them <those>, who live far from the relocation, 9) this policy is not profitable or even gives them a big loss because 10) they have to raise their price to cover the cost for transportation.
- Besides, 11) the limited relocation place causes only they <those> who have capital who are able to rent the place.
- So, 12) they <those> who don’t have capital cannot continue selling their merchandise.

Statement 8) was inferred to be the thesis or the main point of the paragraph. As Reichenbach (2001:158) argues, thesis is the most important feature of an argument and therefore it is worthy of support or defense. The thesis was supported by two reasons stated in Statements 9) and 11). The word indicator because marked Statement 10) as the reason directing the reader to the point of view (Cottrell, 2005:55). The students also used the conclusion indicator so before Statement 12), yet, following the idea, it was found that the word so did not indicate a conclusion. It only linked the ideas (Reichenbach, 2001:160) to shows the effect caused by the limited relocation places. Thus, for the first argument, the students successfully built an argument as structured in Table 2.1, in which they stated the conclusion or main point, and elaborated it with some evidence.

In presenting the argument, the students made use of relevant information obtained from the street vendors as the reason to support their main point and elaborate the reasons so that they could reveal the facts dealing with the policy. These people could be reliable sources since they were directly involved with the policy and thus were expected to provide credible information related to the topic
as well as to provide sufficient reasons to believe (Ennis, 1996:5). Therefore, the argument established was sound and met the standard of clarity, sufficiency, and relevance. Meanwhile, in CT disposition perspective, the effort to obtain information from credible sources showed their attitude to be well-informed by gathering information, including judging credible sources (Ennis, 1996; Reichenbach, 2001; Willingham, 2007; Paul and Elder, 2006).

The second argument against presented the customers’ points of view as stated in Statement 13)

- They claim that it is difficult for them to buy the foods or things they want.

By the Statement, the students tried to present the opinions from the customers’ point of view as the party that experience the impact of the policy. Unfortunately, the students did not try to defend this claim by providing adequate information or other supporting evidence to make the idea clear and be accepted as a reason. Therefore, as Browne and Keeley (2007), et al., underlie in Chapter II, the absence of supporting information to support the conclusion, indicated the Statement as only an opinion, and thus there was no argument offered.

5.1.1.2.3.2. Analysis of language features

In presenting arguments against, the students employed only active structures to express their thoughts. They attempted to maintain the objectivity of the Statements by using the third person pronoun They as the subject that referred to the street vendors or the customers, and impersonal it like in it is dificult. Other subjects were realized in nominal groups such as this relocation, this policy, and the limited relocation place. According to Emilia (2010:93) these signified the students’ improved maturity in exploiting “the forms of language in written mode”. Meanwhile, in terms of CT, being objective in thinking and judging something is the typicality of a good critical thinker which is required in writing argumentative texts (Chaffee et al., 2002; Reichenbach, 2001; Emilia, 2010).

Enhancement in the language skill was also demonstrated by the students’ competence in employing various process types in presenting arguments. They were relational process with is, cause, and have such as this relocation is not fair..., The limited relocation place causes only ...., and relational process with modal verb can in Those who have/do not have capital.... Material process was
frequently found in almost all clauses such as give, raise, rent, continue, buy, whereas verbal process with projection was found only in the last sentence, they claim that.... Emilia (2010:94) citing Adam and Artamewa (2002:195) suggests that the improvement was the result of students’ learning to write and research conducted before their writing activity which enabled them to hear other voices and incorporated them in their writing and thinking. In relation to CT dispositions, it also indicated their efforts to be open-minded and well-informed.

The most obvious language skill development observed was the students’ ability to build cohesiveness of the text through various types of transitions besides reference. The transitions included concessive conjunction: on the other side; causal conjunction: because and so; additional conjunction: besides, and, or, which were used to build either extension or enhancement clauses (Emilia, 2010). The use of conjunctions system showed the students’ competence in creating and expressing logical relationship between the parts of the text (Eggin, 2004) that was resulted from their learning to write and think as well as their reading experience in the Modelling stage as discussed section 5.1.2.2.2 above.

Another significant feature observed concerned the frequent presence of technical words related to the relocation. Instances were: relocation, vendors, cost, capital, merchandise, and rent. In terms of CT, the presence of these words marked the students’ attempt to be well-informed and their sufficient background knowledge about relocation policy, which is considered as an important aspect of metacognition (Marzano, et al., 1988 in Emilia, 2010:98). It is in line with Reichenbach (2001) and Paul and Elder (2010) who argue that critical thinking starts with knowledge and comprehension, as well as “sensitive to context” (Lipman, 1988; Lai, 2011).

Related to the learning process, the progress shown was the result of the students’ positive response to the teacher’s oral feedback, which simultaneously functioned as scaffolding. In the process, they revised the words traders into vendors, and and things into merchandise as the teacher suggested and pointed them out in the dictionary. The result reinforced the feedback conception that students need to have response or feedback to their writing throughout the writing
cycle (Hedge, 2010; Hyland, 2003) with the effect of providing information to the writer for revision (Keh, 1990) as discussed in section 2.4.2. of Chapter II.

5.1.1.2.4. Conclusion and recommendation

5.1.1.2.4.1. Analysis of CT elements and CT dispositions

In this last stage the students employed a conclusion indicator *In conclusion* that marked a conclusion to consolidate the discourse and to affirm what they had communicated (Hyland, 1990:74). The statement *we agree and support the government to enforce the Red Zone policy* indicated that the students took a position (Reichenbach, 2001; Ennis, 1987:12) towards the issue after weighing the pro and con arguments. As previously addressed, a writer’s position characterizes an argumentative text (Reichenbach, 2001) as well as shows a critical disposition (Emilia, 2010:98). However, the Statement did not directly answer the question they raised at the issue, *Do street vendors need to be relocated?* Rather, it answered the issue *whether or not the Red Zone policy should be enforced*, as the reader analysed previously in the issue analysis. This conclusion showed that the students were inconsistent in dealing with the main topic of the issue so that it did not fit in with the issue and led to illogical of writing (Paul and Elder, 1996, Emilia, 2005; Cottrell, 2005).

However, despite the inconsistency, this group were able to put forward their idea in their own point of view by providing a recommendation as seen in the excerpt below:

- But we recommend that the government should provide a lot of relocation places and it <they> should be separated <spread> all around the city so <that> it will be easy for the customer to reach the place and <for> the street vendors to continue their business.

In this recommendation, the students tried to propose a reasonable idea in their own point of view which corresponds with the subject of the discussion. The recommendation also implied that the students listened carefully to the street vendors’ complaints regarding the unfairness impact of the policy or the relocation. *In terms of CT*, willing to listen to others, seeing issues from both sides, and seriously considering points of view other than their own signified openmindedness as a CT disposition that typical critical thinkers demonstrate.
when dealing with a problem (Ennis, 1993, 1996; Reichenbach, 2001; Paul and Elder, 2007; Willingham, 2007).

### 5.1.1.2.4.2 Analysis of language features

The conclusion stage of this text commenced with an opening *In conclusion*, which served to signal the final evaluation of the discussion (Emilia, 2010). The use of first person subject *we* in the conclusion marked the commitment of the students who were writing (Fairclough, 2003:169 cited by Emilia, 2005:207). Meanwhile, the transition *but* used to begin the recommendation, marked a shift in topic from the conclusion to a different idea that would be recommended (McCarthy, 2010:49), and directed the readers to follow the idea (Reichenbach, 2001:158).

To offer other people to do things as they recommended, the students used a strategy of modulation to express their attitude of obligation (Eggins, 2004:181) by employing modal verb *should*. Eventhough *should* expresses obligation or necessity, it was not expressed in a command but in a declarative (Eggins, 2004:179), so that it is perceived as an “opinion” (Eggins, 2004:182). According to Emilia (2005:207), this expression has a wider impact because “it is not directed at the person implicated in the command, but at a third person”.

However, the students’ limited vocabulary in the target language made it difficult for them to articulate their thoughts clearly so that the idea became vague. Errors in using singular-plural nouns were also identified. There was incorrect use of pronoun *it* instead of *they* to refer to the phrase *relocation places*, the wrong choice of verb *separated* which was meant to say *spread*, and ambiguous grammar (Reichenbach, 2001:114) as shown in the last clause: ..., *it will be easy for the customers to reach the places and the street vendors to continue their business*. This Statement might have been clear to the students that *both the street vendors and the customers can reach the places easily, so that the street vendors can continue their business*. However, it might have been interpreted the other way by others, that *the customers can reach the places and the street vendors easily so that the customers can do some business there*. As Reichenbach (2001) asserts, these failures were caused by the careless use of language.
Similar to the findings of Text 1, it brings an implication to the teaching programme that to practice the students’ critical thinking skills, it should be taught that language can cause ambiguity and it should be avoided in informative and argumentative discourse (Reichenbach, 2001:108) by writing the sentence precisely and clearly (Chaffee et al., 2002; Reichenbach, 2001), so that it is clear how each word functions in the writing text (Reichenbach, 2001:114).

5.1.1.2.5. Summary of the findings of Text 2
To sum up, the students of Group #6 were able to demonstrate the CT elements in their writing. Concerning issue, they could identify the issue but could not formulate it in a relevant question. They were able to offer two relevant arguments for by presenting the facts obtained from their direct observations, and successfully established one sound argument in the structure taught. Other Statements could not be accepted as arguments due to the absence of elaboration or evidence that supported their main points. Instead, they presented only opinions or descriptions, that function as informative statements.

In respect to CT dispositions, the students kept focusing on the topic of the issue, considering the situation by confining the problem at issue, and collected relevant data as an effort to be well-informed and open minded. Meanwhile, in the language development, this group showed good ability in using reference and transitions to create a cohesive text, but they still needed improvement in using the correct concord, as well as the nominalization to make the text look like a well-formed written text (McCarty, 2010:25; Emilia, 2010) as well as to strengthen their arguments (Emilia, 2010).

5.1.1.3. Analysis and discussion of Text 3
Text 3 is displayed in Appendix 5c. It is entitled “Should Yuk Keep Smile” programme be banned?”, written by Group#7. In this text, all CT elements including the arguments, facts and opinions were identified. For the issue, it was formulated in the sentence level but could not be clearly identified in the preview. Regarding CT dispositions, being open-minded, well informed, and relevant with the topic seemed to be the most CT dispositions reflected in their writing. However, they also attempted to consider the situation, made a decision, and
sought alternatives to offer a recommendation. The detailed analyses will be discussed below.

5.1.3.1. Issue

5.1.3.1.1. Analysis of CT elements and CT dispositions

This text addressed the topic about an entertainment TV program called “Yuk Keep Smile” or “YKS” broadcast by a national TV channel. The topic was chosen due to a controversy over the banning on the program among the society at the time. Likewise, this group provided a preview of the issue by describing the condition of entertainment broadcastings on national televisions. Differently, they did not state the issue explicitly in the preview. The description provided did not clearly describe the real controversy that wanted to be discussed either. Thus, the analysis was conducted by finding the main point of the paragraph (Reichenbach, 2001:40), inferring the students’ serious concern with the current events, and connecting it to the title of the text (Browne and Keeley, 2007). The excerpt below was the preview of the issue of Text 3.

1. The spread <broadcasts> of the entertainment TV programme<s> in Indonesia some time <sometimes> do not pay attention to <the> ethics codes of "Komisi Penyiaran Indonesia".
2. For example, it is forbidden to mock, humiliate, harrass, or ignoring < ignore> the moral values of religion<s>, the prestige of human <dignity of people> or damaging <damage> international relationship<s>.
3. This case happens to one of the most popular entertainment TV programmes called YKS.
4. YKS stands for ‘Yuk Keep Smile’.
5. This programme is shown in Trans TV.
6. Based on this issue, there are 2 points of view to respond it.

Following the ideas of the description and the main point, it was inferred that the main point of the issue was the violation of the ethics codes by an entertainment TV programm, YKS. So, the issue could be realized in an indirect question - whether or not the entertainment TV program (YKS) should be banned, or in direct yes/no question should the entertainment program (YKS) be banned (Reichenbach, 2002; Browne and Keeley, 2007). The direct question was found in the title of the text. It is relevant with what Reichenbach (2001:33) argues that sometimes the students communicate their thoughts with the titles.
The students commenced the preview of the issue with the fact describing the condition of entertainment programs broadcast in most national TV channels. They also tried to explain the term ethical codes by giving some examples of activities categorized as the violation of the ethic codes, based on the reliable source they obtained from the internet, which indicates their attempts to be clear about what they were communicating (Ennis, 1985, 1996; Paul and Elder, 2006; Reichenbach, 2001) and to be well-informed by gathering relevant information from reliable sources (Ennis, 1996; Reichenbach, 2001; Willingham, 2007; Paul and Elder, 2006; Cottrell, 2005).

As indicated in Chapter IV section 4.3.6, this explanation was indeed the revision they made to respond the feedback given by Group #2 during the students-peer feedback session as Abdi said in the interview:

*I talked about the ethics codes in my text, but I did not mention what ethics codes were. Having been reminded (given the feedback) by the other students, I thought they were right. So before the text was submitted to you (the teacher), we added what ethics codes were (revised the text).*

Willing to listen to others’ feedback and seriously considering others’ point of view signified their openmindedness needed in responding to an issue critically (Ennis, 1993, 1996; Reichenbach, 2001; Paul & Elder, 2007, Willingham, 2007). Moreover, this answer also showed that the students were self-monitored, self-directed, and self-corrected (Paul and Elder, 2006) in the sense that they could accept their own mistakes and managed themselves in students to make correction. As pointed out in section 2.4.2 Chapter II, this positive response evidenced that students-peer feedback can be a way of raising students’ awareness of audience considerations (Leki, 1993 in Storch, 2005; Hyland, 2003), negotiating meaning between the readers and students (Rollinson, 2005:25), and at the same time, helping learners develop analytical and critical reading and writing skills (Nystrand and Brandt, 1989 in Storch, 2005).

Unfortunately, before coming to the last Statement, the students did not specifically relate the condition to the kind of violation that YKS conducted. Accordingly, the Statement Based on this issue, ... failed to progress the reader to the question at issue since the expression refers to an unclear Statement. In other words, the students could formulate the issue only in the sentence level, but, they
were unable to articulate their thought to provide the reader with the clear issue. This failure might have been caused by the students’ incomplete comprehension about the meaning of issue in the Discussion text, in which they focused only on the understanding that the issue should be controversial, but ignored the topic and the question to answer (Chapter II, section 2.3.2.1). This weakness also brings that the issue did not fulfill the standards of clarity due to the insufficiency and inaccuracy of background information.

5.1.1.3.1.2. Analysis of language features

Like the other groups, this group tried to maintain the objectivity of their ideas by using both active and passive structures. Differently, this group employed non-human subjects in all sentences of the issue like The spread of the entertainment TV programme, This case, This programme, including impersonal It in the passive structure It is forbidden to... The students also tried to keep connectedness of the sentences by using the transition for example to introduce the ethic codes, the reference this (McCarthy, 2010:35) in This case, this programme, and this issue which were expected to guide the reader to the issue raised.

The process types mostly consisted of material process either in active or passive forms, like do not pay attention, happens, is forbidden, is shown, which were used to describe the doings and happenings of the program (Emilia, 2010; Gerot and Wignell, 1995). The relational process was realized to identify the programme in YKS stands for “Yuk Keep Smile”, and in the last sentence, ... there are two points of view to respond. These various processes were used to provide a description of the fact concerning the violation of entertainment TV programmes, which also signified the students’ comprehension of the linguistic features of the genre taught in the teaching program (Emilia, 2010, 2012).

However, compared with Text 1 and 2, this text showed more striking grammatical errors. The weaknesses were found in inconsistent use of plural nouns for general things such as the words programme, religion, and relationship, which should have been stated in plural forms because those words referred to groups. Reichenbach (2001:100) suggests that “Statements about groups are to be treated as universals”, therefore those words should have involved the use of
plural verbs. In additions, some noticable errors in lexical choices in Sentence 1 and 2 led to the reader’s confusion. They included the adverb *some time* rather than *sometimes*, the noun *spread* instead of *broadcast*, noun phrase *prestige of human* rather than *dignity of people*, as well as the verb to *respond* which should have been replaced by *to discuss* without object pronoun *it*. Another error directly recognized was unparallel structures used in exemplifying the ethic codes as displayed in Sentence 2.

For example, it is forbidden *to mock, humiliate, harrass, or ignoring* the moral values of religion, the prestige of human or *damaging* international relationship.

In the excerpt above, the verbs *ignoring and damaging* were not parallel with to *mock, humiliate, and harrass*. Locating unparallel objects of the verb *ignoring* with two noun phrases without *coordinate conjunctions*, and then followed by a coordinate conjunction and another *ing-form, or damaging*, was misleading and ambiguous. *Damaging international relationship* might have been interpreted as another object of *ignoring* as it was connected with a coordinate conjunction *or*, and made the meaning vague, while, in fact, it was meant as another example of violation acts to the ethic codes. The structure could have been organized better by adding some coordinate conjunctions to make the sentence parallel, and clear in meaning: ..., *to mock, to hummiliate, to harrass, or to ignore* the moral values of religions or the dignity of people, and *to damage* international relationships. Apart from their limited vocabulary, these fallacies indicated the students’ inability to control the language.

This entails the teaching implication that apart from the knowledge of genre, the students needs to be supplemented by attention to the sentence and word-level choices (Myhill, 2008 in Macken-Horaric et al, 2011:14) but they should be taught integratedly into the text and context rather than as discrete components so that she can help the students see how grammar and word choices create meaning and how the language works (Hyland, 2007:153), mainly due to their lack of prior knowledge and skill of writing experience.
5.1.1.3.2. Argument for

5.1.1.3.2.1. Analysis of CT elements and CT dispositions

This stage opened with the transition on the other hand, as the signal for the readers to move to a new topic (McCarthy, 2010; Emilia, 2010), followed by a Statement introducing the readers to the arguments supporting the banning of the program. Due to the lack of logical indicators signalling a conclusion or reasons, conclusion analysis was inferred from the idea presented (Browne and Keeley, 2007; Bradley, 2015:138; Beyer, 1995).

The excerpt below displays the Statements used to build the arguments for.

- On one hand, 1) some people agree that this programme should be banned.
- They think 2) this TV programme is not educating for the audience especially for the children.
- For example, one of the most famous religious organization in Indonesia said that 3) this programme is not good TV programme.
- They also said that 4) it takes children’s attention to watch than to study, so 5) this TV programme disturbs the children’s study time.
- It is also said by M. Ihsan, from the front of national commission for children protection.

The conclusion or the main point of the first argument was inferred in Statement 2) stating their opinion that this TV programme is not educative for audience, especially for the children. To support the conclusion the students took some opinions from a religious organization and a relevant authority. However, the Statement led to confusion as it contained a vague word ‘good’ (Reichenbach, 2001:124) but there was no definition of what was meant by not a good program nor any relevant or supporting information to be accepted as a reason (Hughes and Lavery, 2015; Blair and Johnson, 1987a in Van Eemeren and Grootendorst, n.d:12). This brought that the argument was unsound and did not satisfy the standards of reasoning due to unclear, insufficient, and inaccurate reasons.

The second argument offered was built by Statements 4) and 5). The indicator so marked Statement 5) as the conclusion. However, the indicator was not convincing to signal a conclusion, so, the therefore test (Ennis, 1996) was applied on to obtain a more determined conclusion. The result was

- It (YKS) takes children’s attention to watch than to study, therefore, this TV program disturbs the children’s studying time.

The test showed that this TV programme disturbs the children’s studying time was the conclusion, and It (YKS) takes children’s attention to watch than to study was the reason. To justify the argument, the students also used an appeal to
authority (Ennis, 1996:67) in *It is also said by Mr. Ihsan from the Front of National Commission of Children Protection.* Unfortunately, the students left the Statements without any supporting evidence, so that the Statements remained unclear. Moreover, analysing the relationship of ideas, as Chaffee (2000) and Chaffee *et al.* (2002) point out in Chapter II, the conclusion built did not follow from the reason, in the sense that the conclusion did not accord with the reason. That the program attracts children to watch than to study does not necessarily causes the program disturbs the children’s studying time. So, even though the students addressed a relevant authority’s statement to strengthen the argument, it could not be accepted as the reason since *it was false* and *the structure was invalid.* Following Chaffee (2000), Chaffee *et al.* (2002) and Reichenbach (2001), to be considered sound or valid, an argument should have true reasons and a valid structure. Therefore, *the second argument offered was considered unsound.*

This flaw probably happened because the students did not carefully read the news article as one of the source or they did not selectively quote the relevant statements of the authority, and thought that appealing to authority could build a strong argument. *The implication to the future teaching program* is that *the teacher should introduce some potential fallacies* encountered and done in reading and writing an argumentative text including an appeal to authority which was also found in the writing text of Groups #3 and #5.

The next Statements offered to be arguments for suggested *the facts* about the performance of the program’s hosts which could be directly observed by watching it (Cottrell, 2005:141), as displayed in the excerpt.

- It is said that 6) there are erotic choreographies in the programme.
- One of it <them> is called “goyang oplosan”.
- 7) The hosts of this programme some time <sometimes> make a joke by throwing [a] food to another host.
- 8) This is not a good action as well.
- As we know 9) there are a thousand until million people [are] <suffering from> hunger out there.

**The first fact** was stated in Statement 6). It was inferred that the conclusion of the third argument was *YKS contains erotic choreographies.* This point was followed by short information telling the name of the choreography. Unfortunately, it was not supported by any relevant evidence or convincing explanations dealing with the banning of the program. So, the sentences served only as informative
Statements intended to inform the readers, not to state a position nor to offer a reason, and thus, they did not need any defense (Reichenbach, 2001:145; Cottrell, 2005). To conclude, the Statements did not establish an argument.

The second fact was presented in Statement 7). It concerned the hosts’ behaviour which was judged as not good as stated in Statement 8). Apart from the spoken expression As we know ..., there was no logical indicator employed to signify a reason. To justify the Statement, the students employed a short description about hunger in many places which they said as out there. This was also a fact. Yet, the students failed to communicate their thought to connect the fact to the conclusion, nor did they employ any logical indicators to characterize a reason. So, the Statement was also considered as a description and thus, no reason offered. Concerning the description for the reasons, Reichenbach (2001) argues:

Descriptions, however, do not present reasons in favor of the truth of the statements made; rather, what they describe is presented as a given – something for the reader or hearer to accept that does not need defense (p. 145).

Referring to the theory, it was concluded that Statements 6) to 9) did not construct arguments. As aforesaid in the discussion of Text 2, this finding brings about the need of improvement of the future teaching program, in which the teacher should address how descriptions should be manipulated as background data that critical thinkers can use to evaluate or judge what is described (Reichenbach, 2001:146).

5.1.1.3.2.2. Analysis of language features
The most striking feature of Text 3 was the frequent use of projections to express their objectivity in presenting arguments (Emilia, 2010:31; Eggins, 2004). Instances were found in active structure with verbal clause - They also said that ..... and in agentless passive construction – It is said that.... that characterized objectivity in written text (Emilia, 2010:31). The students also demonstrated their language development by the ability to use emotive language, like that stated in Statement 9), there are a thousand until million hungry people... “to get the reader to go beyond comprehension to make a value judgement about what is described” (Reichenbach, 2001:146). Meanwhile, the use of quantifier some in the
particular Statement **Some people agree** ... signified the students’ awareness that not everyone was involved in the agreement and that they could not be generalized (Reichenbach, 2001:99; Cottrell, 2005). As previously addressed, being objective and careful in presenting other people’s opinions or ideas to build arguments are required in writing an argumentative text (Reichenbach, 2001; Chaffee, 2000; Chaffee et al., 2002). As the students expressed their thought by quoting and reporting other people’s saying (Gerot and Wignel, 1995:63), **verbal processes** were frequently used in projections such as *They also say that...*, *It is (also) said that...*, and *one of them is called* ... Other process types identified were **relational processes** like in *this TV programme is not good, ...is not educating, ...is disturbing*, used to describe the quality of the programme. One **mental process** with conscious being was found in *They think...*, and **material processes** to show doings and happenings (Gerot and Wignel, 1995:56; Emilia, 2010; Eggins, 2004) in *this programme should be banned, it takes children’s attention, the host sometimes make a joke*. To keep the logical flow of thought, the students attempted to employ the conjunction *also*, to show a relation of addition, *so*, to show causal relationship, and *For example*, to clarify the previous Statement (Eggin, 2004; Emilia, 2010). They also used the reference like *they*, *it*, and *this* to build cohesiveness (McCarthy, 2010; Alarcon and Morales, 2012). However, in some sentences, the students showed carelessness in employing the devices. *First*, the absence of transitions to connect Sentences 10 to 11 and 12 to 13 making the sentences hanging and separated from the text, making them less meaningful. *Second*, the ambiguous referent for *They* in *They also said that* ... that might have been interpreted to refer to **some people** who agree with the banning (in Sentence 8), or to those belonged to the **most famous religious organisation** (in Sentence 9). Ambiguity by reference was also noticeable in Sentence 11, *It is also said...* In this clause, *It* could be interpreted as anaphoric reference (McCarthy, 2010:35) which referred to the conclusion that *the programme disturbs the children’s studying time*, and thus conveyed the meaning that the Statement was supported by the authority. Yet, the word *It* could also be interpreted as a **dummy subject** (Borjars and Burridge, 2010:82) used in an introductory sentence to direct the
reader to a new topic. Further, the use of exophoric reference *out there* in Statement 9) was also vague and did not help to make the idea unified since it was not text-internal (McCarthy, 2010:35). Beside ambiguous, the sentence was also misleading. The location of *also* since in the clause could be interpreted as a sign that there was an additional support from the authority to the previous statement, or as a marker that there would be another new supporting *statement afterwards*.

In addition, the students made the typical grammatical errors in subject-verb number agreement like *The host of this programme sometimes make*, as well as using ambiguous grammar (Reichenbach, 2001:114) *some time* instead of *sometimes* to show *frequency*, and the noun *hunger* instead of *hungry* to describe *people*. Besides the students’ low mastery of vocabulary, the errors were probably caused by the unchecked spelling so that they affected the meaning conveyed. This brings an implication to the teaching programme, that the students should be practiced with correct structures and lexical choices in writing to avoid ambiguity that weakens arguments.

5.1.1.3.3. Argument against
5.1.1.3.3.1. Analysis of CT elements and CT dispositions
In this stage, the students offered three arguments against the banning of YKS programme. The stage commenced with the contrasting transition *on the contrary* that signalled another phase of the text (Emilia, 2005, 2010) and an introduction leading to the arguments, while the reason indicator *because* often indicates that the other part of the sentence is the conclusion (Ennis, 1996). The first argument is displayed as follow:

- They said that 10) YKS is very entertaining, funny, always creative and innovative and also relaxing <for> some people after work, *because* 11) the programme is shown in the evening.

Transcribed recording from the students’ dialogue revealed that the opinion was obtained from one of the students’ elder siblings who often watched the programme. The opinion was stated in Statements 10) and 11). Nevertheless, the students did not organize the opinion in the correct language structure, nor did they attempt to add more evidence to build an argument. Instead, they presented the opinions as it was that resulted in an illogical idea. The idea that the evening broadcast was entertaining and relaxing (for) some people after work was
probable, but that *the evening broadcast makes the programme funny, always creative and innovative*, did not make sense. Therefore, as Chaffee (2000); Chaffee *et al.* (2002); Browne and Keeley (2007); Hughes and Lavery (2015) argue, such *reason was unacceptable* and *the argument was unsound*. Thus, the argument did not meet the standards of clarity, relevance, and sufficiency.

However, despite their inproficiency in articulating ideas, *in CT perspective*, there were some *CT dispositions* observable in the writing process. The act of asking for other people’s opinions to get reliable information was viewed as the students’ effort to be and to be open-minded (Ennis, 1993, 1996; Reichenbach, 2001; Paul and Elder, 2007, Willingham, 2007). The dispositions are believed to be able to improve along with the development of their thinking (Ten Dam and Volman, 2004:364)

**The second argument** against are presented in the following excerpt:

- Beside all of the negative arguments, 12) YKS still has a good impact for <to> the audience and also the people out there who need a help.
- For example, 13) they give <something to> [a] charity such as groceries, blankets and medicines for flood victims in Jakarta.

The argument was introduced with a transitional phrase *beside all of the negative arguments* signaling that the coming arguments would be the opposite ones. Understanding the relationship of ideas of the sentences, it could be inferred that Statement 12) was an *unstated conclusion* (Browne and Keeley, 2007), and Statement 13) was the *fact* used to support the conclusion. The fact was observable and could be proved so that it formed strong evidence (Cottrell, 2005; Reichenbach, 2001). Thus, eventhough there was no reason indicator employed, this evidence was true and acceptable and thus an *argument was established*. However, as Chaffee (2000, 2002) and Reichenbach (2001) argue, the absence of logical indicators make the Statements become *ineffective arguments*.

**The third argument against** was presented in Statement 15) and 16).

15) YKS also open<s> a large job vacancy because 16) it need<s> a lot of crew and audience that should <will> be paid.

In this argument, the students viewed another positive thing of YKS program. The indicator *because* indicated that Statement 16) was the reason offered to support the *conclusion* that *YKS opens a large job vacancy*. The reason
was the fact since it could be observed or experienced (Cottrell, 2005; Reichenbach, 2001). Unfortunately, the students did not elaborate the fact, for instance, by telling some details of the key word crew or the number of audience to convince the reader with the word large (job vacancy), so that the reason was incomplete, and consequently it confused the readers. This was relevant with what Reichenbach (2001) argues that incomplete reasons influence the clarity and accuracy of writing, which subsequently weaken the arguments.

However, despite the inability to articulate their idea, the students maintained consistency with the subject of argument, either in for or against, and this is crucial in dealing with arguments (Cottrell, 2005). This consistency showed a CT disposition that the students stayed focus on the question at issue (Ennis, 1985, 1996; Reichenbach, 2001; Paul and Elder, 2010)

5.1.1.3.3.2. Analysis of language features

Compared to the arguments for, in this stage the students employed more various types of conjunctions such as additive conjunctions for example for elaboration or clarification, and, but, and also to express the relationships of addition and variation; concessive conjunction on the contrary to signal contradiction, and causal conjunction because to signal reasons. These conjunctions helped the students build cohesion (Halliday, 1994a:324 in Emilia, 2010:29) and enhance the texture of the text (Alarcon and Morales, 2012:115; Halliday, 1994:327 in Emilia, 2010:30). Moreover, the presence of the variety of conjunctions demonstrated the progress of the students’ writing competence in building the clause of elaboration, extension, and enhancement (Emilia, 2010:30), which is expected to be developed in other writing activities.

However, unlike the arguments for, the students expressed their thoughts all in active constructions with the third person subjects They which referred to the YKS hosts, and the unconscious subject the YKS. This indicated the students’ focus and consistency with the subject of argument which was critical in presenting a clear position of the writer (Cottrell, 2005:65).

In terms of process types, the students employed mostly material processes with either active or passive constructions such as: keep, give, open, need, is shown, and should be paid to describe the doings and happenings, relational...
process like in YKS is entertaining, YKS still has a good impact to describe the quality of the programme. Meanwhile, verbal process was found only in the projection They said that... to report what other people said (Gerot and Wignel, 1995; Emilia, 2010). The use of various linguistic features, as previously addressed showed the students’ enhancement in expressing their thoughts in the target language.

Nevertheless, despite the development, the students needed to control the language used which was evidenced by some ambiguous languages and careless use of cohesive devices in their writing. For example, in Sentence 16): They said that YKS is very entertaining,... creative and innovative and also relaxing <for> some people after work, because the programme... the inappropriate locating of conjunction also before relaxing some people after work as its object, might have been understood as an additional description of the quality of YKS, but it could also be interpreted as a new entity which had causal relation with the independent clause because it is shown in the evening, since the reason was appropriate for and logically accorded with the object rather than the quality of the program.

Uncontrolled language use was also identified in the misplace of reference. The reference all in Beside all of the negative arguments, was interpreted to refer to all the Statements employed in paragraph two. Yet, the transitional phrase where the reference existed was located straight after Statements 11) and 12) that suggested positive points of view. It followed that the transition was also misleading since the positive points became involved in the negative arguments.

Some other observable aspects influencing the meaning were the errors in subject-verb agreement and verb patterns. The problems were found in YKS open and it need. Meanwhile incorrect verb pattern was found in ..., some people keep support this programme in which the material process keep should have been followed by an -ing form. Given that the students used the rules correctly in other sentences, it followed that these errors were caused by their careless use of language and inability to control it. All these fallacies subsequently caused unclarity, insufficiency and inaccuracy that brought about unsound argument (Paul and Elder, 2006, 2007).
5.1.1.3.4. Conclusion and recommendation

5.1.1.3.4.1. Analysis of CT elements and CT dispositions

In this last schematic structure, the students made a decision to show their position towards the issue (Reichenbach, 2001; Ennis, 1987:12) followed by logical recommendations. A writer’s position characterizes an argumentative text (Reichenbach, 2001) as well as shows a critical disposition (Emilia, 2010:98). The conclusion and recommendation are displayed below.

1. After looking at that <those> indicated arguments, we conclude that YKS programme do<does> not have to be banned, but [they] should pay attention to the ethics code of ‘Komisi Penyiaran Indonesia’.

2. They also have to control their jokes so they do not hurt someone<’s> feeling and (the programme is) appropriate to be watched for <by> everyone including the children.

In this final conclusion, the students used the signal we conclude, which acted as an indicator introducing what the students wanted to conclude (Ennis, 1996; Browne and Keeley, 2007). The conclusion was preceeded by the transition after looking at <those> indicated arguments, indicating that the conclusion was made by evaluating the arguments for and against presented in the previous stages. This act was relevant with the CT disposition that critical thinkers always try to see an issue from both sides, and seriously consider others’ points of view.

The students also made two logical recommendations concerning the disadvantages of the programme which they previously addressed in the stage of argument in favour, namely the violation of the ethic code and the improper jokes. Unfortunately, they did not restate the main points to lead the reader to a logical conclusion. However, an important point indicated in this stage, they kept being relevant and focus with the subject of the discussion (Ennis, 1985, 1996; Reichenbach, 2001; Paul and Elder, 2010; Cottrell, 2005) and indeed provided the answer corresponding to the question at issue, put in the title of the text. In terms of the logic of writing, the students demonstrated the thinking development in the sense that the issue, most of the arguments, and the conclusion made sense together, and that the final conclusion fit in with the issue (Paul and Elder, 1996, 2007; Emilia, 2005; Cottrell, 2005; see also Ennis, 1996).
5.1.1.3.4.2. Analysis of language features

Regarding the linguistic feature, the students had shown their understanding of the language features characterizing the Discussion text type. The use of subject orientation with the first person Statement and verbal process *We conclude that...* indicates that the students as the students committed to what they were saying (Emilia, 2010:31). The conclusion was followed by a coordinate conjunction *but* to signal a contrast and extend the clause (Eggins, 2004:287; Emilia, 2010:30) realized in the recommendation *but they should pay attention to the ethics code of*. In the recommendation, material processes were employed with modal verb *should* as the marker of modality (Emilia, 2010:31) as well as in *They also have to control their jokes...* These expressions showed the students’ detachment to what they were saying (Emilia, 2010:31) and an obligation for the subject realised in the Statement (Emilia, 2010:35).

Despite the comprehension of the linguistic features, carelessness in language use was still identified in some incorrect uses of reference which led to ambiguity such as the incorrect *determiner that* rather than *those* or *the* in *After looking at that indicated arguments*. The errors in reference and subject-verb agreement were found in *YKS Programme do not have to be banned, but they should ... They referred to singular subject YKS programme*, thus, it should have used *it*, followed by the auxiliary *does*. “Ambiguous reference” (Reichenbach, 2001:113) *they* was found in *they should pay attention to ... and They also have to control their jokes so they ...* This sentence was intended to continue the first recommendation they made for the subject YKS programme. It would have been more logical if the subject had been expressed in more detail like *The hosts or the personnels of the programme.*

Another confusion was caused by an *unparallel structure* in the last sentence which was expressed in dependent and independent clauses. In this clauses, coordinate conjunction *and* was used to express additional meaning formed by the clause *so they do not hurt someone’s feeling*, of which the subject was *they*. Thus, the next expression was expected to be a clause showing additional actions or information conducted by *they*. However, the students presented it in an incorrect elliptical construction, *and (........) appropriate to be watched for everyone ... of*
which, the subject was certainly not they but the programme, so that the elipsis was not effective. This grammatical inaccuracy was caused by their inability to control the language so that language ambiguity was found in all stages on the schematic structure, causing the writing unclear.

Concerning the ambiguity, the result of the interview revealed that this problem was caused by inability to verbalize their thought in the target language as Abdi, the high achiever of this group, said,

“Putting the ideas into writing, that’s the hardest part”

According to Flower and Hayes (1981:373), this activity was essentially the process of actual act of writing words and ideas in English on paper termed “translating” which requires the writer to manage specific demands of written English in which students may experience difficulties in this process (Chase, 2011:5). Considering that the students were novice students, the teacher needed to involve developing students’ skills in producing and employing needed fixed patterns (Hyland, 2004:4) including complex sentences and cohesive devices so that the students could produce meaningful sentences, creating written texts which accord with the social function and the linguistic features of the Discussion text type, as well as the standards of reasoning. Moreover, the teacher should also help the students acquire the appropriate knowledge of the topics and vocabulary to create an effective text (Hyland, 2004:15).

5.1.1.3.5. Summary of the findings of Text 3

This group had demonstrated their ability to present the CT elements in their writing. Concerning issue, eventhough they could not present the preview clearly, but they could formulate it explicitely in the title of the text. In terms of arguments, there were two arguments for identified from five arguments offered. Meanwhile for arguments against, they could present three arguments, but they were false, incomplete, as well as ineffective, so they were interpreted as weak arguments. Regarding the language features, this group had also shown their understanding of the Discussion text and their ability to apply them in their text.

In terms of CT disposition, they showed open-mindedness, attempts to be well informed, to make a decision by building the final conclusion and seeking
alternatives for recommendation concerning the issue, and maintained their consistency in seeing a problem. However, their careless use of the language led their writing to ambiguity rather than clarity.

5.1.1.4. Conclusion of the findings of textual analyses (Texts 1, 2, 3)

In general, the students showed the potential to think critically by their ability to demonstrate the elements of CT in their texts consisting of the issue, arguments, facts, and opinions. These elements were realized in the activities involving CT like identifying real-life issues around them and then formulating them in the forms of direct questions (Reichenbach, 2001; Browne and Keeley, 2007), offering arguments, employing facts and opinions to build arguments, making conclusion, and seeking alternative to solve the problems.

In terms of issue, the groups commonly could identify and formulate the issue correctly in the form of direct questions (Reichenbach, 2001; Browne and Keeley, 2007) but still needed improvement in presenting the preview or background knowledge of the issues. In general, they could also answer the questions at issue in the conclusion stage.

Meanwhile in presenting arguments, either conclusion or reason indicators were inconsistently used (Ennis, 1996; Chaffee, 2000; Reichenbach, 2001; DSP 1988; Emilia, 2005, 2010), making the arguments commonly ineffective (Chaffee, 2000; Chaffee et al., 2002). The arguments also did not consistently follow the structure introduced in the Discussion text eventhough they had shown their ability to apply the language features of the text.

Concerning facts and opinions, all groups provided both facts and opinions to present both issues and arguments. However, the arguments were not consistently supported by facts or opinions to provide sufficient reasons. Therefore, the arguments presented were weak or unsound, and thus did not satisfy the standards of clarity, sufficiency, and accuracy. Unsoundess was also caused as the students set up some arguments based on common sense rather than on the facts.

Concerning the CT dispositions, the students in each group evidently and frequently showed the attempts to be open-minded, to be well-informed, and took the situation into consideration in identifying an issue and presenting
arguments. Despite their limited ability to verbalize their thoughts, it was identified that they had attempted to be relevant with the topic of the discussion, and to be clear with what they meant by giving relevant examples for their reasons. Finally, they showed their ability to make decisions through the conclusions they made and to offer an alternative of problem solving through their relevant recommendations. Thus, their arguments had meet the standard of relevance and logic.

With respect to the language features, in general, the students had a good control of demand of a discussion move. The schematic strutures of all texts (Texts 1, 2, and 3) showed the students’ good understanding on the moves or schematic structures of a discussion text to achieve the purpose of the genre, by the inclusion of issue, arguments for and against, and conclusion and recommendation, guiding the readers through the content of the text and making the text “interactive” (Thompson, 2001 in Emilia and Hamid, 2015). They also showed their good understanding on the language features of the genre though their ability to employ both active and passive structures in building arguments, various types of process and modal verbs correctly. Concerning the transitions, eventhough lacked of variety, they were still able to make the text cohesive and coherence and signified that arguments present (Alarcon and Moralez, 2012). However, with respect to CT perspectives, the use of ambiguous language due to some inappropriate lexical choices, grammatical error, and the use of emotive words, also contributed to the weakness of their arguments or faulty reasoning (Chaffee, 2000; Chaffee et al., 2002) in terms of language accuracy, as a part of the standards of reasoning (section 2.3.2.5 Chapter II).

In Indonesian contexts, these findings are consistent with the previous studies of Samanhudi (2010) and Rohayati (2015) which were conducted in the tertiary education levels. In learning perspectives, these similar results bring an implication that CT can also be taught in lower education levels like in secondary schools, and does not merely become an attribute of higher eduction students.
5.1.2. Data from interview

This section will discuss the CT elements demonstrated in the students’ texts from the interviews with the students. The discussion was based on the results of the interview analysis (Appendix 8c) from two interview questions which inquired students’ understanding of CT elements in writing (Q4) and their awareness of using CT (Q5). For the purpose of clarity and practicality, the interview scripts presented have been translated into English.

5.1.2.1. Students’ understanding of CT elements in writing

The result of the interview revealed that the students did not completely understand the elements of CT in writing, yet their answers reflected what might have been their concerns or struggling with during the CW process, and thus supported the findings of the text analyses in terms of CT dispositions. The result was indicated by the answers such as “reason” (Abdi, high achiever); “argument” (Ery, average achiever); “credible sources” or data (Lia, Ery, Sasha); “objectivity” (Sasha, mid achiever); “clarity” (Tasya and Jovi, high achievers); “relevance” (Ria and Lia, low achievers); and “the language used including grammar, vocab, and coherence” (Jovi, high achiever, Ria and Yos, low achievers). None of them addressed the elements of issue, facts, and opinions explicitly. Instead, they elicited credible sources or data which were, in fact, referred to the facts and opinions.

In other interviews, the students from Groups #4 and #5 addressed two standards of reasoning – “clarity and relevance” as CT elements. Their answers were consistent with their writing texts, in which these groups seriously attempted to make their ideas clear by providing relevant descriptions and explanations. However, they did not realize that descriptions and explanations could not serve as arguments (Reichenbach, 2001; Cottrell, 2005). It brings an implication that the teacher has to teach the students to manipulate the descriptions and explanations to strengthen their arguments.

Other answers such as objectivity and the quality of language including coherence indicated that the students had gained some knowledge about important elements of argumentative texts (Chase, 2011) mainly when building and writing arguments. For the answer, they further argued,
Argumentative text should be objective, and credible sources are very important for the objectivity of the writing (Sasha).

Sentence structures, vocabulary choice should be correct so that the idea is clear (Jovi, Yos). Even if the grammar and vocabulary are already correct, when the sentences are not connected to one another, the idea becomes illogical (Jovi).

Objectivity in students’ view was interpreted as being open-minded by seeing an issue from different points of view (Moon, 2008:24). Particularly, the second reply indicated that either high or low achievers were aware of the importance of clarity in writing and that the language used influenced the clarity as well as the logic of writing. To some extent, their opinions were consistent with the CT disposition they demonstrated i.e. trying to be clear with what was meant. However, they were still unable to verbalize them clearly in their writing.

Referring to the answers, it was very likely that apart of their limited language capacity and thinking development, the students’ lack of understanding of these elements might have contributed to their low quality of the elements they had attempted to build in their writing.

5.1.2.2. Students’ awareness of using CT in collaborative writing (CW)

The students believed that they used CT “when building the issue (Lia) and arguments” (Sasha, Yos), “when writing” (Tasya, Abdi, Sasha, Ery, Ria), and “when reading” (Jovi, Abdi, Sasha, Ery, Lia), “when brainstorming and holding a discussion” (Jovi). These answers reflected the most difficult activities they perceived during the CW process which might have contributed to their writing quality. This indicated that the answers of interview were closely related to the result of text analyses.

Connected to the CT elements, Lia pointed at the issue as the activity involving CT the most. The script below displayed her answer and reason.

When determining the issue. Mmm... Because we have to be knowledgeable... for example about facebook, what is intensely being discussed currently (in the society). Then, we cannot find opinions (information) only from one web (source). So we must have broad knowledge about facebook, ... what topic is being discussed.

Eventhough she spoke very slowly, she argued that to deal with an issue, one should have broad background knowledge about it, and that to be knowledgeable, one should gather information or listen to opinions from different sources. This idea was relevant with CT experts’ conception (Reichenbach, 2001, Paul, 1990; Ennis, 1996; Bailin, 2002) that knowledge underlies CT and with McPeck’s
exemplary statement cited by (Gibson, 1995:28) that “CT is always about some subject” which means that to be able to judge or to evaluate something, one should be adequately knowledgeable in the subject areas discussed. This answer was consistent with her perception of CT that CT means having broad knowledge.

In terms of CT dispositions, her answer also indicated an awareness in learning and thinking that to be more knowledgable, one should find and learn some relevant information from several sources to be well-informed.

Other answers related to CT elements in writing came from Yos, low achiever, and Sasha, mid achiever. They argued that CT was mostly used when building arguments. Unfortunately, Yos could not elaborate his reason due to his inability to express his ideas even in Bahasa. Yet, Sasha tried to explain her reason as follow:

Because we, mmm ... we may not see only from one aspect, like only from the school’s side. So, each aspect should be explained in detail, in order to .... to make it clear.

Although less organized, her response showed her awareness that in discussing an issue one had to consider several points of view, and that the argument built should meet the criteria of precise, or in detail (Emilia, 2010), with the main purpose to be clear; the expected standards of reasoning suggested by Paul and Elder (2006, 2007) namely precision and clarity. However, the answer had not been realized yet in their writing in the sense that their writing had not met the standard of clarity which might have been caused by their inability to articulate their ideas in English.

The rest students argued that they thought critically when they were writing, including writing arguments, and when they were reading including reading the source to find the relevant data or facts and opinions. The answer below represents their reasons:

When we’re writing (a discussion text) we cannot see a problem only from our sides but also from others’ ... we have to take a position, and other people have to be able to see our position (Tasya)

This statement also indicated a reflection on the student’s experience in CW activity, which showed CT dispositions: that thinking critically meant “considering others’ point of view rather than their own, and taking a position, which meant making a decision based on what they believed was true” (Ennis,
Taking position is crucial in writing an argumentative text (Reichenbach, 2001; Cottrell, 2005:63; Emilia, 2010) since it will organize and direct their thinking and guide the exploration of the subject (Chaffee et al., 2001:19; Cottrell, 2005:64). Meanwhile, by the statement that other people have to be able to see our position, she showed her thinking development and knowledge of writing that a writer should be clear about what is being communicated so as to enable the readers to see his or her position (Ennis, 1996; Paul and Elder, 2006; Reichenbach, 2001) as well as for the readers to identify whether the writer is using an argument (Cottrell, 2005:63). This comment showed her awareness of the presence of audience in communicating ideas in writing (Chaffee et al., 2002:19; Hyland, 2003; Hyland, 2007; Emilia, 2010).

Similar thought came from another high achiever:

*In writing, we have to arrange (combine) the words (information) from the sources and our own ideas, think how to deliver our ideas so that the people who read our writing also understand our thoughts (Abdi)*

Abdi’s answer implied that organizing ideas was an activity of CT. By this answer, he showed the development in writing and thinking that, as the writer, he thought of how they should present their ideas to the audience so as to make the readers understand what is being communicated (Chaffee et al., 2002). Yet, to some extent, his answer was inconsistent with his group’s writing mainly due to their inability to verbalize their thought in the target language. Supporting this point, Flower and Hayes (1981:372) contend that the process of organizing is not merely ordering points but plays an important part in creative thinking and discovery because of its capability in students’ expressing ideas and forming new concepts.

Nevertheless, the attention to readers in writing indicated that the students had been writing thoughtfully by considering the presence of readers which would practice them to be effective students (Chaffee et al., 2002:7). Thus, the findings also supported the idea that writing is a social process in which the students have certain relationships with their readers and certain goals to convey the intended information to the readers (Hyland, 2004:18).
5.1.2.3. Summary of the findings from interview

The result of the interview showed that the students did not completely understand the elements of CT in writing. In their views, they thought critically in certain activities of CW process which indicated the hardest activities they had dealt with. The activities seemed to have contributed to their writing quality. However, despite their awareness of CT attitudes, they still needed a lot of improvement and guidance from the teacher to realize their CT potential in their writing, specifically in presenting arguments.

5.1.3. Conclusion of the findings from students’ text and interview

Based on the findings and discussion of the textual and interview analyses, it can be concluded that the elements of CT which embraced the issue, argument, fact and opinion (Reichenbach, 2001; Emilia, 2005, 2010), are demonstrated in the students’ writing texts. Despite their lack of understanding of the CT elements, findings from interview showed that the students were aware that during the writing process, they were engaged in the activities involving CT such as identifying and formulating the issues, presenting arguments, and employing ‘data’ or facts and opinions. These activities also reflected the CT dispositions focused in this study including being open-minded, being well-informed by seeking various strategies, attempting to be clear with what was meant, seeking and offering reasons, being relevant and focused on the topic, seeking alternatives, making decision and solving problems after evaluating and self-reflecting their writing.

However, despite their efforts, in fact, their writing commonly did not satisfy the standards of clarity, sufficiency, and accuracy, due to their unawareness of the importance of adequate supporting reasons, inconsistent use of argument structures, language ambiguity, and some grammatical errors which caused their arguments weak, invalid, or unsound and their issues ambiguous.

Considering the students’ CT potential, it brings an implication that in her future teaching program, the teacher needs to guide the students in improving their writing so that they can organize their ideas well and employ the facts and
opinions to present sound arguments, as well as control the language to avoid ambiguity and other common fallacies in writing.

5.2. How collaborative writing (CW) helps develop students’ critical thinking
This section attempts to answer the second research question that is how collaborative writing helps develop students’ CT. Findings showed that the phases of CW (see Table 4.1) which involved the heterogeneous groups, the argumentative writing task, and the teacher’s role, had helped develop students’ CT which were demonstrated as CT dispositions. The CT dispositions were shown in Table 5.1. on page 82. As aforementioned in section 5.1., the dispositions demonstrated were all relevant with the theory stated in section 2.3.3 pp. 22-23.

The detailed analyses of the findings from both recorded classroom activities and groups’ talks, were presented based on the phases of the writing process as outlined in the following sections. The data were also analysed in terms of CT and language learning as shown in Appendix 7c. For the purpose of clarity and practicality, the transcription of students’ talks and interviews presented have been translated into English.

5.2.1. Data from classroom observation
Findings from the data showed that the phases of collaborative writing comprising of Modelling, Joint Construction I (Planning Phase), Joint Construction II (Writing Phase), Group-Peer Feedback, and Revision Phase, had provided exposure for the students to practice thinking critically. The exposure was reinforced by heterogeneous proficiency levels of each group’s members, the Discussion text as the writing task, as well as by the teacher’s role as the facilitator and the role model of CT. The discussion are presented in the following sections.

5.2.1.1. CT in Modelling Phase
This stage mainly aims to introduce and familiarize the students with the text in focus (Emilia, 2010; 2011). Practically, the teacher made use of this phase for the reading class. During the phase, the students demonstrated their potential of CT.
by the way they answered the teacher’s questions about the text. The recording showed the activity:

*T: Now, what do you think about the first paragraph? What is it called?
You’ve learned analytical and hortatory xpositions in grade eleven.
*S: Background problem
*S: Introduction
*S: Thesis”
*T: OK, in the Discussion text, this is called ‘issue’. ...
(continued her explanation)
*T: Now, let’s see the next paragraphs. What about these?
*Ss: Arguments
*S: Explanations about the good side and bad side of the case
*T: Good. Arguments for and against. Go to the last paragraph!
*Ss: Conclusion
*Ss: Recommendation

From the CT point of view, these answers indicated the students’ strategy to get the meaning from context by relating the new information about the Discussion text to their previous learning experience. Looking for organizational patterns or principles in what others present to them characterizes a critical thinker. Reichenbach (2001) argues that a critical thinker also develops the ability to set up comparison among things. Moreover, the answers indicated their active metacognitive to find strategy to solve the problem which showed CT dispositions (Marin and Halpern, 2010). Meanwhile, in teaching perspective, the teacher’s questions indicated her function as a facilitator in applying the collaborative learning principles (Thadphoothon, 2005 in Chapter II). For language learning itself, these competencies would contribute to the students’ writing development, particularly in organizing their ideas during the drafting and revising stages of writing process (Chaffee et al., 2002:19).

Other questions arising out were the meaning of “with regard to ....”, “is concerned with...”, “is to do with...”, and “Thus, in summary ...”, “What is the difference between ‘in summary’ and ‘to sum up’?”, and “how to use the expressions?”. Those questions signified not only students’ curiosity of new expressions, but also their awareness that they had to be able to use the new words or language expressions correctly and appropriately to create a meaningful text. In the CT perspective, curiosity about their world showed CT skills and dispositions in which the students tried to get clarification and to be well informed (Ennis, 1996; Reichenbach, 2001).
5.2.1.2. CT in Joint Construction I – Planning Phase

As elaborated in Chapter IV, in this phase, the students in groups, did some activities such as discussing the topics and titles for their writing, and generating preliminary ideas through brainstorming or mindmapping. While being engaged in those activities, each group was observed to conduct CT activities such as:

1) Negotiating the topics

This activity occurred in all groups. The talk below was an example taken from Group #4.

\[ S1 : \text{“We’d better not take the topic. We don’t have enough sources to provide data.”} \]
\[ S2 : \text{“What about social media?”} \]
\[ S1 : \text{“Right. We’d better talk about it. It is more familiar to us and all of us have experiences with social media, so it’ll be easier for us to collect ideas to write.”} \]
\[ S3 : \text{“That’s right, and the topic has more sources for real data”} \]

In negotiating, they tried to seek other alternatives for the topic and to offer reasons to defend their decision of not taking the topic which characterized CT dispositions (Ennis, 1996; Brookfield, 1987; Reichenbach, 2001). In addition, to find the data for their writing, the students conducted several activities such as browsing various information, which were actually the facts and opinions related to the topics, and eliciting questions about the information.

2) Brainstorming

During this activity, several comments indicating CT emerged in almost all groups like “Don’t go anywhere, stick on the topic”. Such a comment showed the students’ awareness that in doing the task, or solving a problem, they had to focus on the purpose or the main point (Ennis, 1985, 1996; Reichenbach, 2001; Paul and Elder, 2010). In CW perspective, the answer signified a characteristic of CW in which the group members would respond to others’ opinions, build and defend arguments which invited debates, questioning or discussing and clarifying ideas as elaborated in Chapter II.

3) Eliciting questions about formulating an issue

These questions were elicited as the response to the questions listed on the whiteboard by the teacher.

\[ Group \#4 : \text{Why do most titles use “should”? Should the title begin with “should”?} \]
In terms of CT, the questions represented the students’ attempts to be well-informed (Ennis, 1985, 1993, 1996; Reichenbach, 2001; Willingham, 2007; Paul & Elder, 2006; Lipman, 1988 in Lai, 2011), to get clarification of what they perceived (Ennis, 1985, 1996; Paul & Elder, 2006; Reichenbach, 2001), as well as to find alternatives of expressing an issue (Ennis, 1996; Brookfield, 1987; Reichenbach, 2001) which typically characterized CT dispositions.

In language learning perspectives, the questions indicated the students’ learning development in which they were able to identify the language features in more detailed way (Emilia, 2010) which was expected to contribute to their accuracy in their writing as well.

4) **Eliciting questions about data or information gathering:**

This question was exemplified by the dialogue between the teacher and Group #7:

\[ S: \text{“Ma’am... can we ask for information directly from the ... nara sumber...?”} \]
\[ T: \text{“Sure. But be careful, choose the appropriate time and the right people to be interviewed.”} \]
\[ S: \text{“Sure.”} \]
\[ T: \text{“You know why?”} \]
\[ S: \text{“Mmmm ..., because ... the man probably doesn’t know much about the problem, so... maybe... he can give wrong information.”} \]

As addressed in Chapter IV, basically the students had understood the essentials of adequate and reliable data to develop their ideas in writing arguments (Ennis, 1996; Lipman, 2003 in Emilia 2010:74; Paul and Elder, 1996; Cottrell, 2005; Reichenbach, 2001, Browne and Keeley, 2007), and to make their statement more credible (Ennis, 1996:58). Concerning the CT disposition, the question signalled the students’ effort to be clear and well-informed and to search for alternatives in answering a problem and obtaining accurate information from another point of view (Paul and Elder, 2007; Ennis, 1996).

Meanwhile, the response “..., because ... the man probably doesn’t know much about the problem, so... maybe... he can give wrong information”, as the answer to the teacher’s provision of scaffolding, indicated the student’s development in reasoning skills and awareness of the importance of credible data to support arguments (Lipman, 2003 in Emilia 2010:74; Paul and Elder, 1996;
Cottrell, 2005) in which the student tried to offer a reason to defend his idea to be selective in choosing persons to be interviewed.

To sum up, the Planning Phase had facilitated the students to engage actively in CT activities including finding relevant data, negotiating the topics, brainstorming, and elicting relevant questions.

5.2.1.3. CT in Joint construction II – Writing phase

As pointed out in Chapter IV, this phase was devoted to writing activity in which the students began to produce the first draft collaboratively (Hedge, 2006; Chaffee et al., 2002; Murray, 1972:12, and alike). The result of analyses in Appendix 7c indicated that during this phase, the students were engaged in most thinking activities as reflected in their recorded activities and talks as exemplified below:

1) Deciding strategies to accomplish the writing task.

To accomplish the writing task, all groups commonly decided to share the task of writing as their strategies to reach the purpose. This activity obviously involved their ability to make decision and solve the problem (Ennis, 1996; Brookfield, 1987; Reichenbach, 2001). They also asked questions, consulted the dictionary, or searched for some other sources, reflecting their strategies to be well-informed and to be clear with what they meant or what was being communicated. However, despite their efforts, in terms of writing arguments, the result was not consistent due to their inability to build sound arguments mainly due to insufficient reasons and careless use of language.

2) Responding to feedback

During the discussions, it was also noticeable that commonly, each group’s members could accept the feedback from their team-mates when they thought the feedback was reasonable. This attitude reflected open-mindedness by willing to listen to others and seriously considering points of view other than their own (Ennis, 1993, 1996; Reichenbach, 2001; Paul & Elder, 2006, Willingham, 2007).

The high achievers, in particular, also showed their respect to other students members’ feeling and levels of understanding or knowledge (Ennis, 1986; Reichenbach, 2001) by listening to others and encouraging them to talk beside
directing the discussion. This was relevant with the result of interviews (see section 5.2.2) with the high and middle achievers which showed such attitudes as exemplified in the following comments:

- I learnt to listen to others (Jovi, high achiever of Group #4)
- We could share knowledge and experience and complete each other. I learnt to interact in an organization, started from a students. We could reflect the feedback from others (Abdi, high achiever of Group #7)
- We could share information, think further, learn not to be an egotist, and behaved more mature (Sasha, mid achiever of Group #5)

3) Directing the discussion : Focusing on the purpose

Directing the discussion was commonly conducted by students leaders to keep the discussion focused on the purpose, that was writing the Discussion texts. The comments below showed the activity:

- “Lead the sentence to facebook. Our topic is facebook, isn’t it?” (Group #4)
- “If we make questions, they should be in line with our purpose. What do we want? What is our purpose discussing this?” (Group #5)
- “I think we should talk about the use of uniform in general, don’t talk about the senior high because we didn’t touch the matter since the beginning. That’s our purpose”. (Group #1)

The excerpts showed students’ understanding that to attain their common goal they should focus on the purpose (Ennis, 1996; Paul and Elder, 2007), as without knowing the focus or purpose, the discussion will waste much of their time (Ennis, 1996:4). In CT perspectives, the activities and talks indicated the attempts to keep relevant to and focus on the main point or question at issue (Ennis, 1985, 1996; Reichenbach, 2001; Paul & Elder, 2010). This is relevant with the result of the text analyses stating that the students were able to demonstrate the element of issue in terms of identifying, formulating and answering the questions at issue as indicated in Table 5.1. Meanwhile, connected to CL, the answers were believed to have come up as an impact of heterogenous proficiency level of the group members. The group leaders were the high achiever who were expected to lead the discussion and provide peer scaffolding for other members.

4) Negotiating ideas

While in planning phase the students negotiated the topics, in the writing phase, they negotiated ideas as demonstrated in the following examples:
- S1 : “This idea doesn’t talk about education system. This is education in general. It’s too broad. We should make it more specific.”
  S2 : “Yea I think so too.”
  Ss : “Well, let’s rearrange the sentences. We still have time.” (Group #5)

- S1 : “What if we explain that it can raise other people’s opinion that there’s a bribery in the case?”
  Ss : “Ok. That’s a good idea. Our explanation will be more complete” (Group #3)

In the talks, the students (S1, high achievers) offered ideas that might be better in their points of view which could be interpreted as their attempts to seek alternatives and strategies for a better result (Ennis, 1996; Brookfield, 1987; Reichenbach, 2001). They also explained to clarify and defend their thoughts (Ennis, 1996; Reichenbach, 2001) and to reach an agreement. Such a negotiation indicated their open-mindedness that can be developed to be critical thinkers.

5) Taking situation into consideration

In the discussion, the students demonstrated their CT by confining the talks or the issues as shown in these comments:

- “Look,... it is talking about Indonesia, so, the rule is also from the government of Indonesia” (Group #1)
- “… but this is in Indonesia” (Group #2)

Besides reminding each other to focus on the issue or the subject of arguments, the excerpts indicated the students’ understanding that situation should be taken into consideration when discussing something (Ennis, 1996; Reichenbach, 2001; Cottrell, 2005) since what works in one place, Indonesia for instance, does not necessarily work in other places or vice versa (Lipman, 2003 in Emilia, 2010). This also signified their awareness that different situations might result in different arguments as shown by the comment of Group #2.

6) Using cognitive skills or strategies

There were some observable activities indicating the students’ use of cognitive skills or strategies while they were dealing with writing problems such as their initiatives to use dictionaries to check the accuracy or other use of language like the technical terms. The following excerpt are some examples:

- S2 : “Does ‘accusmen’ really use a ‘c’? I think it uses an ‘s’.”
  S1: (Check the dictionary). “Oh ya you’re right... with ‘s’” (Group #5),

- S1: ”Wait..., is ‘decide’ an appropriate term? It’s for law term. The law has been decided by the country. Try to check its use in the model sentences” (Group #3)
In CT perspectives, the students’ self-directed response to check the usage and meaning of words in learning the language indicated the students’ awareness of the importance of accuracy and clarity in expressing their thinking (Paul and Elder, 2007; Ennis, 1995). Self-directing was also performed by directly asking the teacher when they were not sure with their own thought or even asking other groups. These attitudes could be interpreted as their strategies or metacognitive ability to attain the desirable outcome (Marin and Halpern, 2010; Halpern, 2014:8). The talks also showed that to some extent, the students attempted to self-monitor and self-correct their thinking which entailed effective communication and problem solving abilities (Paul and Elder, 2006), the abilities expected to be developed in their other learning activities. In the level of words, the activities corresponded with the result of text analyses, in which they wrote the words correctly, but still needed improvement in using them in the discourse level.

7) Team reflection

With respect to the use of cognitive skills, the students were observed to have reflected specifically on their own work and then tried to revise it as exemplified below:

- “Do you think it is logical? I’m still confused with the words.” (S1, Group #3)
- “... it seems that the sentence isn’t complete? What’s the previous sentence? There should be a connecting sentence before this one” (S1, Group #4)
- “Wait ... it seems that we should talk about this part first, after that, to that one.” (S1, Group #5)

In the excerpts, it was conspicuous that the students reflected their own work and tried to make some corrections by reorganizing their ideas before going to the next writing. This attitude indicated that the students were active and persistent in their own thinking process (Fisher, 2001; Xu, 2011; Yildirim and Ozkahraman, 2011) by “question, make sense of, and analyze” (Chaffee, 2000) their own work. Browne et al. (2009; 115) confirming Ennis (1996) suggest that “thinking critically means that learners are engaged in reflective reasonable thinking that is focused on deciding what to believe or do”, and their reflections showed their cognitive skills to reach a decision (Ennis, 1985; Willingham, 2007; Marin and Halper, 2010; Halpern, 2014).
Connected to CL and CW, the answers indicated that the heterogenous proficiency levels of group members worked. Mostly, the high achievers in each group demonstrated their ability to control the language by leading their group mates to reflect in team on what they had done or made group processing, a critical element on collaborative learning (Johnson, et al., 1991).

8) Finding credible source or data

This activity was observed to have occured in all groups. It was carried out in various strategies such as direct observation, reading, interviews, or sharing their own experience. The following talk was an example.

- S1: “It should be supported by data”
  - S2: “Yes, it is. I used to be like that while I was in SMP. Every year, the students were obliged to buy new uniforms” (Group #1)

On another session, it was also recorded in other groups’ discussion:

- S1: “... because she has fulfilled the requirements to be released”.
  - S2: “Really?... Who said that? I mean, where did you get the information from?” (Group #3)

- S1: “Maybe we need opinions directly from persons who like to watch the program.”
  - S2: “I have asked my elder brother. He said that YKS was okay. He said that it’s entertaining after his all day work.” (Group #7)

The dialogues in both groups signified their awareness of the importance of credible data to support their arguments and that the data could be obtained from the direct source or those who had experience with the topic of the issue (Ennis, 1996; Reichenbach, 2001, Browne and Keeley, 2007; Cottrell, 2005).

Specifically, S2 from Group #3 demonstrated her CT by asking more detail questions concerning the person who made the statement and the source of the information. Her questions indicated her attempt to be well-informed and to be clear with the information received. The questions also signified her awareness of the importance of clarity, accuracy, and precision in writing which become the standards of reasoning (Paul and Elder, 2006, 2007; Ennis, 1996). Further, such questions could also mean their attempts to seek alternatives due to their sceptcisms about the data which also characterizes a critical thinker.

These activities were consistent with their writing (Group #3) in which they referred to credible sources as facts or opinions to write arguments. However, despite credible data, their arguments were commonly weak because of the data insufficiency or language fallacy.
9) Attempting to be clear with what is meant or being communicated

Asking for clarification and clarifying ideas were frequently observed during the writing process. The captured talks below were some examples of the activities.

- S1: “I don’t understand, ... why did you devide it into junior and senior?”
  S2: “I mean... because the need is different, ...” (Group #1)

- S1: “Why facebook? What about Twitter or else? They might be abused, too.”
  S2: “But it is facebook that is often abused. It can be used to bully someone, can’t it? Uploading bad videos, and alike. We seldom hear other social media be used for bad things” (Group #4)

As revealed in the talks, in the discussions, the students were frequently observed to ask for clarification for the ideas, actions or decisions taken by their mates. This attitude indicated their scepticism of others’ opinions. However, strong rebuttals were not identified. By asking for clarification they demonstrated their CT dispositions of trying to be clear and to be well-informed. In return for the questions, the students clarified their thoughts by explaining as well as providing reasons to defend their positions (Ennis, 1996; Reichenbach, 2001).

With respect to CL and CW, these activities occurred due to the information gaps among the group members which is the nature of CL and CW. Information gaps, indeed, triggered the students to ask or to clarify their ideas. Thus, the findings support the theory that CW allows students to practice activities which can make up CT through actively exploring ideas, seeing an issue from various perspectives, discussing ideas in organized way, which can be nurtured by listening to others, communicating with others and engaging in dialogue (Chaffee, 2002; Emilia, 2010 citing Chafee, 2000; Norris and Ennis, 1989; Reid, 2002) as indicated in Chapter II.

10) Trying to be specific in giving information

A part of their attempts to be clear was their efforts to be specific in giving information as exemplified in this talk:

- S1: “They use the pavement, they also use the “jalan raya”, .... what is it?”
  S2: “The main street”
  S3: “Not all. I think it should be ‘part of the main street’. This is what causes the traffic jam. Like on Jalan Gardujati” (Group #6)

This activity was related to the aspect of clarity, accuracy, and precision, as the intellectual standards of reasoning (Paul and Elder, 2006, 2007; Ennis, 1996). In
terms of CT dispositions, this attitude showed an attempt to be clear with what is meant as well as to avoid generalization.

However, connected to their writing texts, their attempts to be clear had not met the expected standard of clarity. In other words, their writing was ambiguous. The result thus supported the result of previous research discussed in Moon (2008) that the main problem arising in students' writing related to CT was ambiguity. Yet, despite the low quality of the language used, in terms of language learning, to some extent the students were able to control the language as shown in the excerpts below:

- “Use ‘for example’. Don’t keep using ‘such as’” (Group #3)
- “Too many repetitions. Too often ‘there are’. It doesn’t sound good” (Group #5)

These also indicated students’ awareness of using various expressions to avoid repetitions, which also showed their strategy to avoid boring written communication. In such the case, finding strategies was intended to find solution to the problem, a typicality of a critical thinker (Marine and Halper, 2010; Halpern, 2014; Shannon, 2008). As the comments were given by high or mid achievers, this also supported previous studies conducted by Donato (1988), Kohonen (1993), Gokhale (1995), and Storch (2005), that CL with group diversity in terms of knowledge and experience supported collected scaffolding which then contributed positively to the learning process.

11) Avoiding stereotype

The talks below showed the students’ attempts to avoid being stereotypical.

- S1: “Should we mention the name of the school?”
- S2: “No, just say... one of a junior high schools in Bali, ...” (Group #1)
- S1: “Don’t write the name of the organisation. There’s an ethics. Just say .... a religious organization.” (Group #7)

Related to CT, their control of the language showed their knowledge of the ethics codes in writing which were applied when they were writing. This talk reflected their objectivity and neutrality in seeing an issue (Moon, 2008), an open-minded disposition indicating a critical thinker.

12) Being aware of points of view

Being open-minded was also demonstrated in their awareness of points of view as captured in the students’ discussions.
“Don’t forget, we have to add the argument from the customer side (Group #6)
‘Now we’ll see from adults’ points of view’ (Group #7)

In the language learning perspective, these comments indicated their understanding of the concept ‘seeing the issue from different points of view’ as the Discussion text functions. The comments also showed their serious learning which was consistent with their CT disposition to be well-informed by listening to the teachers’ instruction attentively. As the comments were also given by high achievers, it could be concluded that group diversity in collaborative learning had provided opportunity for them to practice their leadership (Harter, 2009).

13) Language scaffolding

Vocabulary building and language scaffolding were two other activities related to the students’ language learning and development and contributed to their CT development. The scripts below showed some examples:

- Language scaffolding:
  a. Vocabulary/lexical choice
    S1 : “... Corby gets too much ‘keringanan’”
    S2 : “Wait, ...there’s a specific word in politics for ‘keringanan’”
    S1 : “Remisi”
    S3 : “Dispensation, ... grasi from the president of Indonesia”
    S2 : “Clemency, ‘Grasi’ is clemency. ‘Pengampunan’, ... clemency. Here, have a look ... grasi, clemency”
    S1 : “Oh ya, you’re right.” (Group #3, S2 is the high achiever)
  b. Grammar
    S1 : ‘This program is released...’
    S3 : ‘release?’
    S1 : ‘is released’
    S2 : ‘without is’
    S1 : ‘without is...? ... It’s passive. How is passive sentence formed? It should use be (Group #7, S1 is the high achiever)
  c. Organization of ideas
    “To make it clear, first, give some examples of social media. Then, explain its users” (High achiever, Group #4)
  d. New information
    S2: “Oh.... so, there is green zone too?”
    S1: “Sure. Red, green, yellow. Green zone is the one where the street vendors are allowed to sell their things.....”
    S2: “Ohh.. I see.” (Group #6, S1 is the high achiever)
These findings were relevant with Donato’s (1990, 1994) study in Mattos (2000) which reveals that **scaffolding** was obtained through collaborative work, and when the learners were participating in a collaborative task, they constructed a context of understanding in which the negotiation of language form and meaning co-occurs. It was also relevant with Storch’s (2005) study which asserts that in CW, scaffolding enables the students to have joint responsibility over the production of the text.

Concerning CT, employing scaffolding was educationally beneficial since it gave the students an opportunity to enhance learning, develop the target language, support higher-level thinking, self-esteem, provide feedback and assistance, that support ongoing learning (Gokhale, 1991; Emilia, 2010; McCafferty et al., 2006; Gray, 2001).

In summary, the Joint Construction or the Writing Phase provided exposures and opportunities for the students to engage actively in various meaningful interactions that helped develop their thinking skills as well as CT dispositions.

### 5.2.1.4. CT in group-peer feedback phase

In this phase the students were asked to read and to judge one of other groups’ writing texts by using the guidelines provided on the response worksheets (Appendix 4a). The thinking activities in this session are discussed below:

#### 1) Reading and comparing texts, and self-reflecting

At the beginning of the session, it was observed that in common, the groups did not directly review the other group’s work. Instead, they read and compared the work with their own writing and then self-reflect on it as captured in the comments below:

- **S1**: “*Our issue should have been added with some sentences to make it clear*”
- **S2**: “*Yea... we had thought of it yesterday but why didn’t we write it?*”
- “Oh,... the word ‘government’ should use ‘n’ in the middle? ... then... I’ve been wrong so far” (Group #5)
- “*We used the word ‘event’. It should have been like this group, using ‘case’ (group #3)*”

These talks showed consistent result with the study conducted by Thadphooton, (2005) which revealed that this session enabled the students to reflect on their own writing, like what they did when responding to the teacher.
feedback. The comments also signified that the students seriously carried out the task by reading the others’ texts carefully. Even though their focus might be only on the level sentence as Storch’s (2005) study resulted, these response allowed the teaching program session to work and the aim of the activity to achieve.

With respect to CT, this attitude demonstrated their open-mindedness in that they admitted that other groups’ writing was better than theirs in the sense that other students’s writing was more clearly written and more easily understood. Reading the texts carefully was also considered as their attempts to be clear with what was being read as well as to be well-informed.

2) Seeking and offering alternatives for problem solving
   In providing group-peer feedback, the students also attempted to offer an alternative for problem solving as demonstrated by Groups #1, 3, 4, 5, 6, and 7. The following script was the talk in Group #3 when discussing feedback for Group #2.

   "The suggestion should be like this....'there should have been a policy from the owners of the factory and not blame it to the government'"
   - I think this part should be the recommendation, not the conclusion

   Apart from the quality of their feedback, in CT perspectives, their activities indicated CT dispositions in terms of seeking alternatives and offering reasons (Ennis, 1996; Brookfield, 1987; Reichenbach, 2001).

   Some comments used as feedback in writing style reflected the result of language learning taught by the teacher, as shown below:
   "Why are there a lot of abbreviations? This is formal language" (Group #7 to Group #2)

   By the comment, they showed understanding in using the appropriate style of language in writing, that formal writing has different writing style from spoken language in which, awkward expressions which are commonly used in spoken style such as ain’t, gonna, wanna, as well as inappropriate abbreviations should be avoided (Emilia, 2010). Thus, in CT perspective the comment could also be an indicator of their success to make themselves well-informed.

3) Distinguishing facts from opinions
   Another activity involving CT which occurred during this session was distinguishing between the facts and opinions as observed in several groups:
- “They should have searched for other data, not just from their own thought (opinion) So, their essay will be rich in information” (Group #5)

- S1 : “I think their writing looks like only opinions.”
  S2 : “It does. Opinions. Not facts, That’s why they were not firm. (Group #6)

The comment indicated the students’ awareness of adequate supporting evidence other than one’s thought or opinion. The comment of Group #5 was consistent with their writing text which was rich with descriptions and explanation to support their claims. On another side, Group #6 seemed to have been familiar with facts and opinions. They understood that these elements contributed to different effect on writing arguments. However, despite their awareness of the importance of these elements, they still needed to improve their arguments due to their inability to provide inadequate supporting reasons as indicated in the text analysis (see section 5.1.1.2.2).

In summary, CW in the session of group-peer feedback enabled students to think critically not only by giving judgment to other groups’ writing but to their own work as well. They also offered alternatives for correction as well as reasons to improve the writing. Thus, they had demonstrated some CT dispositions which are expected to be develop in their learning activities.

5.2.1.5. CT in the revision phase

In this phase of the study, the students were invited to respond to the feedback from other students and reflect on their own writing. As addressed earlier in Chapter IV, students’ attitudes towards other groups’ feedback on their writing were alike from one group to another. They accepted some grammatical or lexical corrections while they were editing and proofreading, but they did not spontaneously agree with the corrections or recommendations for the arguments, conclusion, and organisation of ideas. The comment from Group #4 below was an example.

“... they might see it differently. It can be clarified.”

The comment indicated that this group was open-minded towards the differences of opinions. They were aware that a different point of view caused different opinions and it could be overcome by the strategy of clarifying or
explaining. Yet, on another occasion, they kept firmly defending their arguments, as indicated below:

- S1: “Why did they say these wrong? We will accept this or what?
  S2: “No, we’ll rebut them in the presentation”

Similar response was shown in other groups. They had their own arguments to decide whether they accepted the feedback or not, and to revise their writing or not. Apart from the quality of their arguments and writing, it was noticeable that the students were practicing to take a position and make a decision, some CT dispositions which are expected to be developed in their future roles in colleges, careers, and society.

In sum, in this last phase of CW, the students were still engaged in thinking activities which required them to take positions as well as to be open-minded for some reasons.

5.2.1.6. Summary of the findings of classroom observation
Collaborative writing (CW) was conducted predominantly in the Teaching Program Phase which was dedicated to writing activities namely Joint Construction, group-peer feedback, and revision phase. In all phases, mainly in the writing session, CW had engaged the students to the interactions involving CT, including peer scaffolding and peer feedback. The meaningful interactions were also reinforced by the writing task in the form of the Discussion text which involved the students to formulate an issue, answer the question at issue, and to build arguments by employing the facts and opinions so that these components completely supported the students to develop their CT.

5.2.2. Data from interview
This section attempts to answer how CW helps develop students’ CT from another data collection, i.e. interview. The discussion was based on the interview analyses including students’ perceptions on collaborative writing (Q1), students’ efforts to overcome the problems encountered in collaborative writing (Q2), students’ understanding of CT (Q3), and students’ awareness of using CT in CW (Q4), which was also used to answer the first research question. For the purpose of clarity and practicality, the interview scripts have been translated into English.
5.2.2.1. Students’ perception of collaborative writing (CW)

Appendix 8b shows that the students’ attitudes toward CW were all positive. The answers given encompassed the aspects of knowledge, skill, and values. **With respect to CT**, low achievers seemed to have gained benefits by the answer “*learn how to think from friends*” (Ria) which was believed to be resulted from her reflection on her engagement in CW activities.

Moreover, all students said that they gained some good values contributing to their attitudes and their personal and social skills by learning to listen to others and being open-minded. Two high achievers stated that they could also reflect on what they had done or written through peer feedback and group-peer feedback along the planning and writing phases, and group-peer feedback session of the teaching programme. Jovi, a high achiever, elaborated the answer to the first question comprehensively:

*The students was fun. We could get developed. I could also communicate with a friend that I never talked to before. From the comments, I learnt the mistakes that I made and improved my grammar as well, because I was not always right. I know what Discussion text is. I learnt how to put forward an idea. I learnt to listen to others. Then,... the passive member could finally speak up and express ideas though she had to be encouraged to talk. .... Writing made me think because it’s more difficult than speaking.*

The findings were consistent with the activities and recorded talks in the classroom observation in which they performed the same CT dispositions such as being open-minded, trying to be well-informed, and respecting other people’s knowledge and understanding (Ennis, 1986; Reichenbach, 2001) to get clear with what was meant. Thus the findings supported the studies conducted by Storch’s (2005), Gokhale (1991), Emilia (2010), McCafferty *et al.* (2006), and Gray (2001) that CL enhances learning, develops the learners’ language, supports higher-level thinking, self-esteem, provides feedback and assistance through interactions with more knowledgeable others, that support ongoing learning (see Chapter I).

5.2.2.2. Students’ strategies to overcome the problems in CW

Concerning the way they dealt with the problems encountered during the CW activity, Appendix 8b showed that the groups carried out some strategies such as negotiating, having a discussion, voting, asking the teacher or other groups, or following their leaders’ instructions. These efforts were consistent with the
recorded talks in group discussion. The script below was an example of how Group #5 coped with the problems.

We asked the students member who proposed the idea what his idea was, then the sentence he wanted to make, then put it into English, but if the sentence was not good (correct), we offered him to change the sentence or the ideas. If he agreed, we used it (Tasya, high achiever).

Concerning CT, this finding supports the study conducted by Gokhale (1995) which revealed that CL fostered the students’ CT development through discussion, clarification of ideas, and evaluating other’s ideas. It was also consistent with Storch (2005) and Emilia’s (2010) studies stating that CW triggered reflective thinking, mainly because the learners were engaged in the act of explaining and defending their ideas to their peers despite a lot of debates that might be time consuming (see Chapter II).

In terms of CL, the answer indicated the presence of individual accountability (Kohonen, 1993:35) in which each group’s member felt in charge of their own and other members’ learning and made an active contribution to the group (Chapter II, section 2.1.3). Thus, the answer indicated that the group met the nature of CL that emphasizes the students as the center in learning activities in which they actively constructed knowledge rather than being passive and spoonfed by the teacher (Thadphooton, 2005 citing Brown et al., 1990).

As the nature of heterogeneous groups, common problems like talking domination and passive members occurred in some groups. Dealing with these problems, the leaders of Groups #4 and #5 performed their leadership skills to overcome the problem, as said by Lia and Jovi:

- Directed by the leader of the students (Lia)
- ... because I was the leader, I think I had to direct the students and the discussion, and to make decisions (Jovi).

These comments revealed that students interaction occurred in the group. As Murray (1993:163) and (Kohonen, 1993:35) argue, a students leader can be of great help to manage the collaboration dynamics, and to direct the discussion in the groups. It means that CW also enabled the students to practice and develop their leadership skills in which some students practiced to help the groups make sense of themselves and of the difficult situation they encountered (Harter,
2009:112). Thus, the result was also consistent with their attitudes demonstrated through their talks in group discussion as previously discussed.

Dealing with the passive members, the students motivated and stimulated their passive mates to be involved in the discussion. This means that *face to face promotive interaction* also occurred as the members of the groups promote each other’s learning by helping, sharing, and encouraging efforts to learn (Johnson, Johnson and Holubec, 1991), and these efforts could also be done by any group’s members regardless their proficiency levels.

Meanwhile, to cope with the disagreements or debates, most groups attempted to find solutions autonomously by negotiating, discussing, or voting under the students leader’s direction, or finding help from others by directly asking the teacher or other groups to get or to confirm the answers. Referring to the concept of CW, these interactions could be viewed as a social process in which the groups as the students, were looking for areas of shared understanding to reach a common goal (Murray, 1993:103). Thus, the problems coming up reinforced that CW indeed occurred, and not merely a discussion (See Chapter II section 2.2.2). Related important responses were expressed by some students:

- *Ideas came from everyone, not only from one person, ... in the students discussion these ideas could complete the others’* (Tasya, high achiever)
- *From their comments, I learnt the mistakes... because I was not always right.* (Jovi, high achiever)
- *We could ask our friends (other students members) to see whether our work was already correct or not* (Yos, low achiever)

With respect to CT, those attempts could be viewed as the use of students’ cognitive skills or strategies used to solve the problem and make decisions (Marin and Halpern, 2010; Halpern, 2014). Thus, their answers were consistent with the activities observed during the CW process. The finding also reinforced the study by Murphy and Jacobs (2000:10) that collaboration offered a powerful means of promoting and enacting autonomy among L2 or foreign language learners since all members were involved actively and persistently in their own thinking process through reflections, giving reasons, interpretations, and evaluation (Fisher, 2001; Xu, 2011). In particular, Tasya and Jovi’s responses also indicated humility by their willingness to listen to their less proficient members’ opinions. It means that both the superior students could respect others’ feeling and
levels of understanding or knowledge (Ennis, 1986; Reichenbach, 2001) as revealed by their interview answers.

5.2.2.3. Students’ understanding of CT and critical thinkers

Regarding their understanding of critical thinking, the students defined it mostly as dispositions or “a tendency to act or think in a certain way” (Reichenbach, 2001:14) such as thinking deliberately (Jovi), very detailed thinking (Tasya), thinking broadly and holistically (Abdi), and thinking as deeply as possible (Yos). A more practical definition was given by Ery.

Critical thinking is thinking based on the facts, not just talking (opinion), we must have strong proofs, strong (credible) sources, and look at the condition from different aspect.

These answers apparently reflected how they were thinking during their engagement in the CW such as in building issues, searching for relevant data, or making decision to determine arguments. Meanwhile, Ery’s answer indicated that he did not only define CT in his own ability as a student, but he could also attempted to clarify his concept by providing examples of how to practice them in the real life, as shown in his group’s writing text which meant that he “did not only tell the readers but also show” them (Chaffee et al., 2002 also cited by Emilia, 2010:90).

Likewise, their perceptions about critical thinkers also referred to CT dispositions derived from the Joint Construction activities they experienced mainly during the process of building arguments, namely ones who view a problem from different points of view before deciding something (CT1, CT9), employ the relevant facts, proofs, and credible sources, not just talking (opinion) (CT2, CT3, CT5, CT6), taking the condition into account (CT7), and can solve a problem (CT9).

The definitions also reflected the learning experience during the Joint Construction stage – social interactions with their team-mates. This view was in line with the perception of thinking and writing as a way of life suggested by Chaffee et al (2002:34) that the development as a critical thinker and a thoughtful writer is observable in many aspects of life such as how he or she makes decision, relates to others, and how to deal with controversial issues.
Differently, Lia, a low achiever, perceived critical thinking and critical thinkers as follow:

*Critical thinking means having broad knowledge. A critical thinker, mmm..., his logic works fast. When there is a problem, he knows how to solve it quickly.*

By her answer, she characterized critical thinkers as ones who had broad knowledge as the resource for thinking and employed it as the basis of their reasoning that enabled them to solve a problem fast. This view was relevant with the conception that background knowledge is central to the making of reasoned judgements (Bailin, 2002:368; Reichenbach, 2001; Chaffee et al., 2002; Paul, 1990), and logic deals with the quality of the reasoning and the argument in the sense that its application focuses largely on the analysis of arguments and the construction of argument (Moon, 2008:38) which is used by a critical thinker to gain a solution to a problem.

Despite her low capacity and less engagement in students discussion, she had shown enhancement in her knowledge of thinking as which was very likely to be **resulted from her reflection during the CW activities.** The answer thus evidenced that CT can be taught to all level students’ proficiency, not exclusively to smart students (Marin and Halpern, 2010)

Meanwhile, **in relation to the writing task,** all the comments thus supported previous studies that to nurture the students with CT and enhance their learning, **the teacher should facilitate them to engage with arguments** (Resnick, 1987 in Rafi, n.d, and Quitadamo and Kurz,; Emilia, 2005; Kuhn and Crowell 2011 in Liu, 2014 ), and the Discussion text as the genre taught, has nurtured the learning and thinking development as discussed above.

In sum, the students’ perception of CT ensured the finding that CW as well as the argumentative writing task contributed to students’ engagement in thinking activities regardless their proficiency levels.

**5.2.2.4. Students’ awareness of using CT**

Regarding **their awareness of using CT,** as discussed in section 5.2.1. the students believed that they used CT when brainstorming and holding a discussion (Jovi), when building the issue (Lia) and arguments (Sasha, Yos), when writing
Concerning brainstorming, which was conducted in the planning phase, the student viewed that this activity involved CT for the reason:

... because we had to think very carefully about what to write, and then we had to respond the opinions, and there were also debates about it. So, when one of us stated something, then others told him or her that the statement was also related to others so we had to think it over, or asked him or her why, what if this or that, etc.

The answer indicated that the student viewed brainstorming not simply as an activity of gathering any information or ideas without any purpose, but rather as a strategy or cognitive skill used to generate ideas to respond to the problem or to deal with the situation (Chaffee et al., 2002:19; Reichenbach, 2001:17; Marin and Halpern, 2010; Halpern, 2014:8). The answer was relevant to her activities observed during the CW process in which she tried direct her group to lead the brainstorming activity to the topic chosen. The answer also supported Smith and McGregor’s (1992) concept of collaborative learning that when learners are engaged in social interactions, they are not simply taking in new information or ideas, but they will try to communicate and articulate their ideas to one another and create something new with them (Chapter II, 2.5).

Further, Jovi’s answer indicated her awareness that thinking or reasoning has a purpose (Paul and Elder, 2008) and that to attain the purpose, there should be interactions among the students members in the forms of responding to others’ opinions, building and defending arguments or counter-arguments which invite debates, questioning or discussing and clarifying ideas. This proved that the brainstorming stage sequenced in the teaching program worked to provide opportunities for students to develop their thinking skills. This also proves that CT is practical (Ennis, 1985; Xu, 2011), and applicable in the classroom practices and everyday life (Paul and Elder, 2010).

With respect to reading as an indispensable activity to writing, specifically, Ery and Yos argued that reading needed CT for the reason below:

Because we have to think very carefully to really understand what the idea is and then find the relation with another text.

By the answer they perceived reading as a process to discern or comprehend the idea conveyed, not simply understanding the presented information (Chaffee et
al., 2002:9), and that comprehension was a part of a critical thinking process to construct meaning (Yu-hui et al., 2010 in Aloqaili, 2012:38; Reichenbach, 2001).

**With respect to CT and language learning**, this awareness was believed to be the result of their learning experience gained from reading, writing, and thinking activities conducted in the sequenced activities of Pre-writing or Modelling, Writing or Joint Construction, and Group Peer-Feedback. Thus, this finding confirms that the sequenced and organised teaching program contributed to the students’ learning development and that reading, writing, and thinking are closely connected (Chaffee et al., 2002:4; Moon, 2008:155) in the sense that both reading and writing contribute to students’ CT.

Referring to the discussion in section 5.2.1, their answers were consistent with both their answers for other interview questions and with the classroom activities observed, in the sense that the activities that they had undergone through the sequenced teaching program had embraced and reflected the activities of critical thinking as highlighted in Chapter II. Thus, it was evident that CW through the sequenced writing process and organized teaching program had facilitated the students to develop their critical thinking.

### 5.2.2.5. Summary of the findings from interview

From four questions given to the interviewed students, it could be concluded that the students’ perceptions of the CW activity were all positive. The result was evidenced by their answers which mentioned the benefits gained during the activity including those in knowledge, skill, and values, and remained consistent with their explanation dealing with the challenges in CW.

With respect to their conceptions of CT and critical thinkers, as well as their awareness of using CT, their answer all reflected the activities of CW they had undergone during the teaching program, started from brainstorming, building issues and arguments, collecting facts and opinions (data) to present arguments, reading the source and other group’s writing, which were all covered in the sequenced collaborative writing activities.
5.2.3. Conclusion of the findings from classroom observation and interviews

Collaborative writing, which was organized and sequenced in Joint Construction stages including planning and writing phase, group-peer feedback, and revision phase, had provided a learning environment which encouraged students to actively engage in various activities involving critical thinking. CT was employed more when the learning activity was complemented with the argumentative writing task, with such a challenging task, CW enabled their CT potential to develop since they had to engage in thinking activities such as brainstorming, building an issue, delivering and defending arguments, employing data (facts and opinions), giving judgement to other groups’ work, and making conclusion.

The result was reinforced with the interview answers. Despite different conception of CT and the reasons they gave to the questions given, conspicuously their answers indicated their reflections on the activities they had carried out during the CW process, and as most CT theorists (Brookfield, 1987; Ennis, 1996, and alike) argue, reflection indicated critical thinking. The reflection was strengthened by their attempts to make their answers clear while answering the interview questions. This attitude were consistent with their talks and activities during the process of writing. The answers also showed their serious efforts in carrying out the challenging writing task as the form of learning the language which was a part of their attempts to be well-informed (Ennis, 1996; Reichenbach, 2001; Willingham, 2007; Paul & Elder, 2006; Lipman, 1988 in Lai, 2011). Thus, they had also demonstrated some attitudes viewed as CT dispositions.

5.3. Conclusion of the findings and discussion

This chapter has presented the answers to the research questions posed in Chapter I. In respect of CT elements in the students’ writing texts, text analyses supported by the interview analyses showed that in general, all CT elements including the issue, arguments, facts and opinions, as well as the CT dispositions that the study concerned, are demonstrated in the students’ texts. However, among the elements, the argument as the core of CT (Cottrell, 2005; Van Gelder, 2005; Emilia, 2005, 2010) seemed to require major improvements mainly due to the lack of elaboration or insufficient evidence as well as the use of ambiguous language.
Meanwhile, with respect to the second research question, findings from both classroom observation and interview revealed that CW with the heterogeneous group, sequenced and well-organized writing process, completed with a challenging argumentative writing task and teacher’s role, had provided a learning environment that helped students engaged in CT activities and thus helped them develop their critical thinking.

The final conclusion and recommendation will be presented in Chapter VI that will be the last chapter of this thesis.