

# Thinking Skills Reflected in the Argumentative Essays of Freshman College Students: A Descriptive Analysis

**Eden Regala-Flores**

De La Salle University-Manila, Philippines

This study aims to analyze and describe the ability of the first year students of one private university in Manila to demonstrate critical thinking/writing skills in their argumentation paper using (a) modified version of Toulmin's 1958 model of argument and (b) holistic score. In addition, a replication of the rubric used by Knudson (1992) is adapted here. This paper provides some guidelines for teaching practice in light of the findings.

Critical thinking, as opposed to rote memorization, involves active and skillful demonstration of higher-order thinking skills (analysis, synthesis, and evaluation) among learners. Engaging students in discussions that demand demonstrations of these thinking skills will provide them the opportunity to grow in their understanding of a new knowledge by breaking it into parts to explore understandings and relationships (analysis), by putting together its general rule or by explaining its proper process (synthesis), by justifying a decision or course of action (evaluation), by generating new ideas, products, or ways of viewing things (creation), and by becoming aware of their thinking processes (metacognition). Through extensive and intensive exploration of the new knowledge, students will not simply accept propositions as valid and sound without *critically* deliberating and evaluating it. Critical thinking, "quite crucially, is the predisposition to evaluate *any* accepted rules or procedures" (Brown, 1998, p.7).

Sumner (1940) posits that critical faculty, being a product of education and training that guarantees mental habit and power, is the only defense against delusion, deception, superstition, and misapprehension of "our earthly circumstances and ourselves." Brown (1998) argues that instructing students to follow a certain mode of thinking is not prescriptive; rather, it encourages students "to discover and take their own path" through an understanding of where they are coming from and constant dialogue (with themselves and / or with others) to grow in their understanding of a new knowledge.

Critical faculty simply means that the students demonstrate the ability to take charge of their own minds, which involves self-discipline, self-examination, and self-improvement. Elder and Paul (1998) believe that if students can take charge of their own minds, they can take charge of their own lives; they can improve them, bring them under their command and direction. As citizens, they can, before voting, take time to familiarize themselves

with the relevant issues and positions, think about the long-term implications of what is being proposed, and pay close attention to how politicians manipulate by flattery or vague and empty promises. They can, in the simplest terms, “scrutinize their reasons critically to see if they are rationally justified” (p.3).

Teaching critical thinking or higher-order thinking skills improves the quality of students’ mode of thinking about any subject, content, or problem by skillfully analyzing, assessing, and reconstructing it. Its aim is towards a self-directed, self-disciplined, self-monitored, and self-corrective way of thinking among students. Thus, the demand to teach critical thinking skills or higher-order thinking skills reaches an insurmountable height (see Black, 2005; Brown, 1998; Elder and Paul, 1998; Gonzales, 1999; van Gelder, 2005).

This study aims to analyze how the use of (a) modified version of Toulmin’s 1958 model of argument and (b) holistic score help describe the ability of the first year college students to demonstrate critical thinking / writing skills in their argumentation paper. A replication of the rubric used by Knudson (1992) is adapted here.

The following questions are specifically addressed:

1. What thinking skills are demonstrated in the argumentative essays of first year students?
2. Are there differences in the sampled essays in terms of thinking skills reflected in them?

## METHOD

### *Participants*

Forty students participated in the study: ten students from four different English One classes in a private university in Manila, the Philippines. These students were from different colleges (i.e., College of Liberal Arts, College of Computer Science,

College of Education, and College of Business and Economics) majoring in various fields of specialization (i.e., Psychology, Legal Management, Philosophy, Computer Programming, Accounting, International Studies, and Language Teaching). However, all were enrolled in English One as part of their General Education courses. It was presumed that most of them were graduates of private institutions—exclusive for boys or girls and / or co-educational—living within the Metro Manila area and belong primarily to the upper-middle to middle class brackets.

The two inter-raters in this study are both part-time faculty members of the Department who have been teaching English One for at least three years.

## PROCEDURE

Sample essays were collected from four English One teachers. These essays were part of the major requirements of the said course. Students wrote these essays in the classrooms in response to the prompt administered by their respective teachers. The process approach was used—that is, they were asked to brainstorm, gather data, outline, write first drafts, undergo peer editing, write second drafts, undergo teacher conferencing/editing (conferencing may be done anytime when necessary), and write final drafts. This writing process/exercise lasted for two weeks.

The essays were then distributed to the two raters who were asked to read and to grade each using the aforementioned rubric. A scoring sheet was provided them so that the holistic and primary-trait grades of each paper could be plotted.

### *Writing Prompts*

The students were asked to write in response to the *writing* prompts that were carefully written to ensure that the audience and purpose were clearly expressed. The *writing* prompts given by four different teachers are as follows:

Teacher 1: *Write a seven-paragraph argumentation essay on any topic of your choice giving at least three arguments to support your stance / position and one refutation.*

Teacher 2: *Write an argumentation essay on any relevant social issue of your choice. Give at least three arguments in favor of your position and three refutations.*

Teacher 3: *Write an argumentation essay on any topic of your choice giving at least three arguments in favor of your stance and at least one refutation.*

Teacher 4: *Write an argumentation essay on the issue agreed on and discussed by the class containing at least two arguments in favor of your position and one refutation.*

### **Scoring**

The student papers were given (a) holistic scores using a replication of the rubric formulated by Knudson (1992) and (b) primary-trait scores that was a modification of Toulmin's criteria. Both scoring procedures were used because the holistic criteria provide information about a writer's overall competence in writing and the primary-trait criteria provide specific descriptive information about writing with respect to criteria for argumentative writing. Studies show that holistic scoring provides little, if any, information that is useful in descriptive assessment because it does not provide information as to why a paper is assigned a particular score (Faigley, Cherry, Jolliffe, & Skinner, 1985). On the other hand, primary-trait scoring is descriptive because it furnishes information as to why a paper is assigned a particular score (Lloyd-Jones, 1977; Faigley et al, 1985). Primary-trait scoring uses criteria that can be designed or developed for each writing task.

The holistic score here did not require an enumeration of any features but did take into account the purpose for the *writing*, its audience, and the degree to which the task was addressed using a 6-point score tool. The raters learned to use the scale by studying the high, mid, and low values, agreeing on essays that should receive

prescribed grades, reviewing sample essays graded using the set of criteria, trying the scale on student-written products, and discussing the results. The raters evaluated the compositions independently. Scores ranged from 1 (never) to 6 (high). Since two raters scored each essay, the total score for a given essay ranged from 2 to 12. Inter-rater reliabilities were determined using Pearson inter rater correlations, and were computed at .89.

The primary-trait scoring, based on the modified Toulmin's criteria, specified that each paper be evaluated according to each of four features: Arguments, Evidence, Counter-Arguments, and Refutation. Scores range from 1 (low) to 7 (high) for Argument and Evidence; from 1 (low) to 4 (high) for Counter-argument and Refutation. The total scores of the two raters for these criteria ranged from 2 to 14 for Arguments and Evidence; and 2 to 8 for Counter-argument and Refutation. Inter-rater reliabilities were calculated using Pearson inter rater correlation and averaged .78 for the scoring of the four criteria.

### **RESULTS AND DISCUSSION**

This study is not conclusive. To obtain an accurate and complete picture of the argumentation skills of freshman college students, more sample writings across departments or colleges must be considered. Control can also be exercised with regard to variables like the use of oral discussions prior to actual writing, one writing prompt for all classes, and limiting participants to students of only one teacher to ensure consistent exposure to one instruction.

The data are presented using frequency and percentage distribution and mean and standard deviation for both the holistic scoring and primary-trait scoring. The answers to research questions 1 and 2 are found in the following sections.

Table 1 shows the most common holistic scores of first year students' argumentative essays. Evidently, majority of the sampled essays (44 out of 80 or 55%) received the scores of 2 and 3 (22 out of 40 or 22.50%) indicating that there is no

**Table 1**  
**Frequency and Percentage Distribution of First Year Students' Argumentative Essays based on Holistic Scoring**

Scores	f	%
6	8	10
5	10	12.50
4	10	12.50
3	22	27.50
2	22	27.50
1	8	10
Total	80	100

significant difference in the thinking skills of these students. Almost 25% of the students seem to have difficulty with written argumentation, implying that when compared their papers show similarity in responding to the task with some argument(s) and exhibit some development of logical reasoning and somewhat elaborated arguments:

*I believe that women courting men and doing all the chasing is still not acceptable. I asked some men if they are in favor of women courtship. Some said no, while some said yes. Men who are not in favor think that women are not capable of courting them. A woman does not pay all the expenses if they are on a date. She does not pick him up and then drive him home. If a girl asks a guy out on a date, being a gentleman, he will not let her pay the expenses they incurred.*

Here the author was able to respond to the task by stating “women courting men and doing all the chasing is still not acceptable.” Moreover, she attempted to develop her argument by enumerating the things expected of a man before, during, and after a date (that is, pick up, pay all the expenses, and drive home). She ended her argument by saying that no man would allow women to do these. Although she was able to elaborate on her stance by citing men’s attitude towards the said topic, she failed to make a distinction between acceptability and capability of women courting men.

A score of 2 is also characterized by limited control of written language; errors in usage; simplistic sentence structure, and awkward responses:

*Much individual say murder is a crime and a sin but some states legalize abortion. As I stated in the previous paragraph, abortion is counted as murder and therefore be considered as a crime. So why is there no penalty to it? Some individuals choose to abort a child because they think they are not financially stable, meaning that they are not able to support the child; while others use the excuse that they are not mature enough. But is it not that if there is a will there is a way? If a person says he/she is not ready to support a child, then why don't they put him/her up for adoption? Therefore, in both ways, the parents and the child will not have any confliction.*

The author’s limited control of the language is obvious in this passage. His inability to use correct usage is unmistakably evident in phrases such as “much individuals”, “if a person says he/she is not ready..., then why don't they put...” and “...will not have any confliction.” Moreover, simplistic sentence structure characterizes this piece of writing. Note that in his attempt to vary his sentence structure by alternating the use of

declarative and interrogative forms only resulted in awkward sentence construction: “As I stated...abortion is counted as murder and therefore be considered as a crime. So why is there no penalty to it? Some individuals choose to abort a child ...they are not mature enough. But is it not that if there is a will there is a way?”

The students’ difficulty in writing argumentation papers can be attributed to their limited knowledge about these issues; extensive discussion in class can probably be provided to give them sufficient information or at least help them deal with the issues with the help of their peers.

A holistic score of 3 demonstrates that the paper is a good attempt at developing a moderately well-developed argument having no difficulty stating viewpoints. However, the stated reasons, despite not being contradictory, have no apparent organizational strategy:

*When children grow up, they go through many different experiences that can mold them into the person they will be in the future. Each and every child is also born with different genes in their DNA that give them built in tendencies and ways in which they act. Some kids could be brought up in the best homes with everything they could possibly get and grow up to commit sexual or violent crimes while other kids could be brought up in low poverty areas, with no one to support or care for them, but themselves. They can turn into successful adults and steer clear from acts of sex and violence...Which makes us think, what are the possibilities of these acts? Nature vs. nurture then play their role. Children grow up committing acts of violence and sex caused by family life, society, experience, and peer pressure.*

*What then are the nature nurture theories and how do they affect us? Scientists say that people behave the way they do either from our genetic*

*predisposition, also called our animal instincts or from influenced actions that we humans learned from external factors. When we talk about anything to do with genes, genetics or heredity, we are talking about the nature side...*

The author clearly and directly stated her thesis: “*Children grow up committing acts of violence and sex caused by family life, society, experience, and peer pressure.*” However, based on the sequence of her ideas in her thesis statement, a signal was given to the readers to anticipate discussion of how each cause resulted in acts of violence and sex among children. It is quite evident that although she was able to clearly state her viewpoint, her attempt to elaborate on the theories of nature and nurture detract from logical support of her thesis, indicating a lack of organizational strategy.

Papers receiving a score of 3 also present an overall argument:

*We should abort the patriarchal society in the Philippines because women deserve to be empowered by the capabilities men can do and has proven they can be equal or level the men in social, political, and economic aspects.*

*Women have leveled the intellectual capacities of men. They have shown great acts, works in the field of science...In the corporate world, we have some women who are in the highest position...*

*...A woman still has the time to attend to the needs of her children...even after working. Works to earn money but still can manage to take care of herself and her family.*

This author was clear as to the presentation of her argument when she specifically mentioned three areas in which “*women have proven they can be equal to men*”. She then proceeded to discuss how women have proven themselves

in the field of science, in the corporate world, and at home.

However, it is worth noting that 25% (20 out of 80) of the sampled papers received scores of 4 and 5 which means that they are very good attempts at developing a persuasive argument. A holistic score of 4 indicates that these papers contain arguments that are moderately well developed and supported, and may state or develop the opposite point of view:

*To cope with the fast-changing times, we must be fully equipped with a transformative education in order to produce leaders who will excel. This type of education encourages transformative learning. We, as students, are not limited to what is given; rather, we are challenged to use other resources and interventions to further understand the questions in our heads. In line with this, the new paradigm enables us to be more process-driven. Rather than just focusing on understanding the topic, we try to be aware of the thought processes that we employ to understand the subject-matter. Most educators contend that experience is the best teacher and this can be demonstrated in the way students learn by discovery or by doing. Therefore, we gain more knowledge and understanding. We are also believed to naturally have the capability to learn things...Lastly; freedom of expression is very evident in this framework. We just don't settle for what is given, rather, we question the given... However, we have the tendency to become too confident. We think that what we know is greater than what the professors can offer us, so we don't listen and we rely too much on what we have in mind. In connection to this, the teacher's credibility can be diminished by this kind of approach...we keep on questioning what the teachers give us...*

In this example, understanding the author's viewpoint poses no difficulty. She was able to develop her argument by stating the reasons why transformative education will produce leaders who will excel: it is process-driven, it encourages learning by discovery or by doing; and it allows freedom of expression. Yet, she did not end here. She considered the opposing viewpoints (tendency to become too confident and diminishing teacher's credibility) and offered some explanation to elaborate on each.

Papers that are well organized, fluent, and function as a unified piece of persuasion characterize as score-point of 5:

*In conclusion, video games are beneficial to one's physical, mental, and social growth. It is safe and convenient. One can never sustain physical injuries directly from playing them. One can play in the safety of one's home. Video games can sharpen one's mind reflexes, and coordination while being a great source of fun. One can make friends through tournaments, Internet matches, and clubs/organizations.*

After discussing in detail the benefits of video games to one's physical, mental, and social growth, this author restated his viewpoint by summarizing his reasons and support.

The primary-trait scoring, based on the modified Toulmin's criteria, specified that each paper be evaluated according to each of four features: Arguments, Evidence, Counter-Arguments, and Refutation. Analyzing the papers using the primary-trait scoring points to the specific demonstration or characteristics of skills among the students tested.

Table 2 shows the frequency and percentage distribution for these specific features. Based on the results, almost 39% of the writers would require readers to infer their intent or argument from the information provided; however, enough information is given so that generalizations are related to the proposition or topic:

**Table 2**  
**Frequency and Percentage Distribution for Arguments and Evidence**  
**based on Primary-Trait Scoring**

Ratings	Arguments		Evidence	
	<i>f</i>	%	<i>f</i>	%
7	22	27.5	17	21.25
5	31	38.75	31	38.75
3	27	33.75	27	33.75
1	0	0	5	6.25
Total	80	100	80	100

*The said system was criticized because they said that it violates our human rights and the privacy of the citizens. They were arguing that it will be a question of constitutional rights of a citizen if this issue will be passed as a law. It can also be a source of abuse to those citizens who forget to bring their identification cards.*

*On the other hand, the National Identification System has a good effect. First is to avoid additional expenses to the citizens, it can get the information from all organizations like SSS, GSIS...It can also be used as transaction from the national level as well as local levels.*

*Having a security that ensures the safety...It will help our authority to track down the bad elements...*

This writer gave his readers sufficient information about the positive and negative effects of the National Identification System, yet did not specifically state whether he was for or against its implementation. Although the reader was left to infer whether the author was trying to state his stance on the issue or was merely enumerating its positive and negative effects, some statements do imply the author's stance: "*It will help our authority to...*"

On the other hand, 33.75% of the student papers received a rating of 3 which indicates that the writer's assertions are unclear and lack specificity, although the generalizations made by

the students are related to the proposition or topic:

*I believe that there are less advantages if a child is aborted. First advantage is that the female will not have the bulging stomach. Second is that there would be no responsibility if the parents or parent is deemed unfit to raise that child. Pro-life point-of-view gives justified reasoning to keep the baby. Reasoning that deals with religious and ethical aspects. For the religious reasoning, abortion is a sin, it is destroying God's beautiful creation and through the ethical aspect, it is simply just wrong. Aborting is wrong.*

In this sample essay, the author was not able to assert what she wanted to argue for. Apparently, there was no specific argument made despite her statement and evidence to prove that "*Aborting is wrong*" because she also mentioned the "*less [sic] advantages if a child is aborted*" and gave evidence to support this claim.

Students appear to be weak in making arguments and supporting them and cannot seem to identify opposing arguments and respond to them:

*There are many benefits of students who do home school, but there are also many disturbing disadvantages that may*

*happen in one's life as he studies alone. One of the major reasons why traditional schools were built was to interact with society. It is taught to students as soon as they start schooling... When they face the real world, they would know how to stand up for themselves, all these things do not happen when one goes through home school his whole life. They do not have much friends their own age. They are usually isolated and timid...They would not know how to deal with themselves and all the more, other people*

*In conclusion, I prefer the conventional type of education. Honestly, it is confidence in oneself and other that get people through life...*

Although the author was able to state what his position was regarding home schooling, it was not sufficiently developed. What he gave in the succeeding sentences were the reasons why traditional schools were built without really developing why home schooling cannot 1) teach students to “*stand up for themselves;*” 2) cannot “*have much [sic] friends their own age;*” 3) or why “*they would not know how to deal with themselves and all the more, other people.*”

The author failed to consider and refute opposing viewpoints regarding this issue in his entire paper.

Since the students do not clearly state their argument, they cannot give complete evidence to support it. Again, the reader must infer much from the data. In other words, these student writers are relatively competent at providing elements of an argument, but not at providing all elements of an argument and at tying these elements together:

*These people do not consider the consequences that they will get in using steroids. Others are using steroids because they can benefit from it...Steroids help in muscle growth and development...many hospitals are also using steroids as a medicine for other*

*illnesses...On the other hand, there are people that do not agree with using steroids...They hate steroids...it makes their body unhealthier and using steroids has some side effects...Based on the effects of using steroids, it should not be legalized by the government but should not be banned for other reasons.*

In this sample, arguments for and against the issue were present. However, there was no clear statement of the author's position. He was noticeably unclear as regards his stance. His last sentence indicates this ambiguity. He argued that steroids should not be legalized by the government; yet, he was also pushing for it not to be banned for other reasons which he failed to mention.

This lack of support for the claims in the sampled papers may be due to the fact that students rely only on what they know about the topic since they are not really required to do extensive research in their English classes.

Frequency and percentage distribution for counter-arguments and refutations are shown in Table 3. Data indicate that almost 34% (27 out of 80) are very good in identifying counter-arguments and that nearly 33% of the sampled essays offer some opposing viewpoints:

*Squatters throw their garbage anywhere that lead to floods. Although we can say that because the government did not provide garbage or trucks to clean their garbage, they still must have tried not to put trash on the rivers beside them. They do not have care about the dirt in their place because they know that they are just squatting and will go to another place someday, so why should they bother to clean?*

*They expect to be relocated to housing units but often, they sell the unit to other people and still stay in their old place or sometimes relocate themselves in another squatter's area. Though we cannot blame them for not staying in the units the*



**Table 3**  
**Frequency and Percentage Distribution for Counter-arguments**  
**and Refutations based on Primary-Trait Scoring**

Ratings	Counter-arguments		Refutations/Response to Oppositions	
	<i>f</i>	%	<i>f</i>	%
4	27	33.75	17	21.25
3	21	26.25	24	30
2	26	32.50	29	36.25
1	6	7.5	10	12.5
Total	80	100	80	100

*government provided them because they do not have the necessities that they need, like food, water, electricity and work, we should not condone their actions. We should not let our being Filipinos overrule the law. The government should be firm in implementing the law on squatting. The government should demolish the squatter's area!*

The author of this essay attempted to present opposing viewpoints by stating the reason why squatters throw their garbage which consequently cause floods (“Although we can say that because the government did not provide garbage or trucks to clean their garbage”), and leave the housing units given them (“Though we cannot blame them for not staying in the units the government provided them because they do not have the necessities that they need, like food, water, electricity and work”).

Counter-arguments may be present in these papers, but the link between the counterarguments and the specific opposition seems to be missing:

*Here is where the ban of gun enters into the picture. The government, as we all know, made a policy that guns are required to be registered yet we all know that this policy is not as effective as it seems, because these anti-gun laws just give rise to another problem such as smuggling and other*

*illegal processes of selling guns. On my own point of view, the problem roots not on the presence of a gun itself but in the discipline implanted on the person who handles it, so whether we ban guns or not, chances are there will be a same rate regarding deaths caused by guns.*

The counter-argument offered by this author was clearly seen when he stated *guns are required to be registered.*” To respond to his opposition he stated that this would be ineffectiveness “because these anti-gun laws just give rise to another problem such as smuggling and other illegal processes of selling guns.” However he failed to develop argument as to why the policy of registering guns was ineffective. Mentioning other crimes that might arise from the ineffectiveness of the policy was totally skirting the issue.

The students appear particularly weak in systematically identifying opposition and the opposing arguments. It is no surprise then that they are relatively weak in the use of refutation, since they do not state specific opposing views:

*Dissatisfaction with their bodies causes many women and girls to strive for the thin ideal. The number one wish for girls ages 11-17 is to be thinner, and girls, as young as five have expressed fears of getting fat. Eighty percent of 10-year old girls have dieted, and at any one time,*

**Table 4**  
**Summary of the Thinking Skills Reflected in the Argumentation Essays**  
**of Freshman College**

Levels of Thinking	Score/Rating
<b>Holistic scoring descriptors</b>	
➤ Represent good attempts at developing a moderately well-developed argument having no difficulty stating their viewpoints; however, the stated reasons, despite not being contradictory, have no apparent organizational strategy	3
➤ Present an overall argument	
➤ Respond to the task with some argument(s) and exhibit some development of logical reasoning and somewhat elaborated arguments	2
➤ Limited control of written language; errors in usage; simplistic sentence structure; and awkward responses	
<b>Primary-trait scoring descriptors</b>	
➤ Require readers to infer their intent or argument from the information provided; however, enough information is given so that generalizations are related to the proposition or topic	5 3
➤ Assertions are unclear and lack specificity; although the generalizations made by the students are related to the proposition or topic	
➤ Offer some opposing viewpoints	5
➤ Weak in making arguments and supporting them; cannot identify opposing arguments and respond to them	3
➤ Counter-arguments may be present in these papers, but the link between the counter-arguments and the specific opposition seems to be missing	3
➤ Relatively weak in the use of refutation, since they do not state specific opposing views	2

*50% of American women are currently dieting. Some researches suggest depicting thin models may lead girls into unhealthy weight-control habits. As shown by this research, the media is affecting the teen-agers' way of thinking. They might not know it but they are slowly changing our society. I know it's hard to change the culture of the media but then we could at least give talks to these young girls. I believe that us girls on the other hand, shouldn't be too vulnerable. We should always step up to what we believe in and don't let anything change the way we think. We shouldn't give in to these kinds of thing because it would only lead us to no good.*

In this paper, the author stated why “*women and girls to strive for the thin ideal.*” It was because of dissatisfaction with their bodies. She mentioned what they were afraid of and what they have done to avoid getting fat. She suggested that based on research, media have been responsible for these fears and unhealthy weight-control habits. She offered to present a counter-argument by stating that media might not know that it was slowly changing our society and acceded by recognizing the difficulty of changing its culture. She then urged her readers not to be vulnerable; rather, to “*always step up to what we believe in*” and not to “*let anything change the way we think*” because “*it would lead us to no good.*” By failing to mention how media can change the society's way of thinking and why it is

hard to change its culture, the author was not able to identify the opposing views; thus, her inability to offer a refutation.

That students appear to have difficulty in identifying the opposing views and offering a refutation can be attributed to the limitations given in the writing prompts. As can be noted, these writing prompts only require students to give at least three arguments in favor of their stance and at least one refutation. The students might not have been given clear instructions with regard to giving counter-arguments and offering answers to these opposing views. There appears to be a need to emphasize clarity and specificity in giving instructions or writing prompts.

Table 4 summarizes the thinking skills of college freshman students reflected in their argumentation essays based on the descriptors/guide for the holistic and primary-trait scoring used in assessing the sampled essays. Generally, the ratings are 3 and 2 for the holistic score and 5 and 3 for primary-trait score except for their use of refutation that is rated 2.

## IMPLICATIONS AND CONCLUSION

Based on the foregoing discussion, the sampled essays show that students' argumentative papers demonstrate relatively good level skills. Holistic scores of 3 and 2 demonstrate that the papers are relatively good attempts at developing a moderately well-developed argument with the author having no difficulty stating their viewpoints. However, the stated reasons, despite not being contradictory, have no apparent organizational strategy. They seem to have difficulty with written argumentation, but the students appear to have similar responses to the task and exhibit some development of logical reasoning and somewhat elaborated arguments. A score of 2 is also characterized by limited control of written language; errors in usage; simplistic sentence structure; and awkward responses.

When analyzed using the primary-trait scoring (based on the modified Toulmin's criteria), almost 39% of the writers would require readers to infer their intent or argument from the information provided; however, enough information is given so that generalizations are related to the proposition or topic. A rating of 2 indicates relatively weak in the use of refutation, since they do not state specific opposing views.

What do the results imply?

First, there seems to be a need to emphasize the following: explicit instructions about clear statement of an argument or a proposition to ensure effective argumentation essays; importance of evidence to support and develop a line of thinking or conclusion; and identification of and response to counter-arguments to be given in all stages of writing. Giving well-defined and specific writing prompts can be one way to respond to this lack of instruction. Unless this is ensured, determining where the difficulty in writing argumentative essays stems from, i.e., students' lack of logical thinking skills or problems with instruction might not be easily resolved.

Second, teachers may devote some class hours to oral discussion of an issue prior to actual writing. In this mode, students will have opportunity to discuss all possible evidence, counter-arguments, and refutations. This activity could be part of the brainstorming or planning stage of the writing process.

Finally, findings of this study show that students are poor in responding to opposing views. This can be attributed to their lack of audience awareness. Students who have a firm grasp of what constitutes an effective argumentation papers write with an audience in mind, including the audience's potential opposition to the argument and their response to that opposition. In other words, students' ability to argue orally with a conversational partner may not transfer to written argument if they are not aware of the components of an effective argument without being cued and prompted by the partner. Again, explicit instruction about the target audience cannot be over-emphasized.

**AUTHOR NOTE**

The author would like to thank Dr. Leonisa Mojica, Dr. Corazon Balarbar, and the reviewer for their extremely helpful comments.

**REFERENCES**

- Black, S. (2005). Teaching Students to Think Critically. *Education Digest*, 70 (6), 42-46.
- Brown, K. (1998). *Education, culture and critical thinking*. Aldershot: Ashgate.
- Elder, L. & Paul, R. (1998). The role of Socratic questioning in thinking, teaching, and learning. *Clearing House*, 71 (5), 297-302.
- Faigley, L., Cherry, R.D., Jolliffe, S.A., & Skinner, A.M. (1985). *Assessing writers knowledge and processes of composing*. Norwood, NJ: Ablex Publishing Corporation.
- Gonzalez, A. (1999). Towards a liberal education: Reading and critical thinking skills. *The Philippine Journal of Education*, 78 (2), 76.
- Knudson, R. E. (1992). The development of written argumentation: An analysis and comparison of argumentative writing at four grade levels. *Child Study Journal*, 22 (3), 167-185.
- Lloyd-Jones, R. (1977). Primary trait scoring. In C.R. Cooper & L. Odell (Eds.), *Evaluating writing*. Urbana, IL NCTE.
- Sumner, W. G. (1940). *Sumner's definition of critical thinking*. Retrieved on March 16, 2005 from <http://www.criticalthinking.org/aboutCT/sumnersDefinitionCT.shtml>.
- Toulmin, S. E. (1958). *The uses of argument*. Cambridge: Cambridge University Press.
- Van Gelder, T. (Winter 2005). Teaching critical thinking: Some lessons from cognitive science. *College Teaching* 53 (1), 41-7.