

THE IMPLEMENTATION OF UNDERGRADUATE STUDENTS' CRITICAL THINKING ON THE COMPOSITION OF PAPER ESSAY IN PAPER WRITING CLASS

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Abstrak

Sebagai salah satu *skill* abad ke-21, setiap mahasiswa dituntut untuk mempunyai kemampuan berpikir kritis. Model yang dapat digunakan untuk mengamati dan mendorong kemampuan siswa untuk berpikir kritis adalah dengan memberikan mereka tugas untuk menulis *paper writing*. Oleh karena itu, penelitian ini memiliki tujuan untuk menjelaskan kemampuan berpikir kritis mahasiswa bisa terefleksikan dalam penulisan *paper writing* mereka, dan bagaimana mereka mengimplementasikan kemampuan berpikir kritis mereka dalam menulis *paper writing*. Objek penelitian ini adalah hasil tulisan *paper writing* dari 6 mahasiswa dan subjeknya adalah 15 mahasiswa di kelas *Paper Writing B* di UNESA. Peneliti akan menggunakan dua instrumen utama untuk mendiskusikan kedua tujuan penelitian, yaitu hasil penulisan mahasiswa dengan rubrik yang diadopsi dari *Ball State University* dan juga kuisioner. Selebihnya, peneliti juga akan melakukan wawancara sebagai instrument pelengkap. Penelitian ini menggunakan pendekatan kualitatif. Hasil penelitian ini menunjukkan bahwa kemampuan berpikir kritis mahasiswa telah terefleksikan dalam tulisan *paper writing* mereka, khususnya dalam bagian sintesis dan parafrase. Tidak hanya itu, hasil dalam penelitian ini juga memperlihatkan bahwa mahasiswa tidak hanya mengimplementasikan kemampuan berpikir kritis dalam *paper writing*, tetapi juga dalam menemukan solusi yang tepat untuk menyelesaikan hambatan yang mereka hadapi dalam proses penulisan *paper writing* mereka.

Kata Kunci: berpikir kritis, *paper writing*, Kelas *Paper Writing*

Abstract

As one of the 21st-century skills, every student is required to acquire critical thinking skills. One way to investigate and encourage students' critical thinking is to assign them to write articles. Therefore, this study was conducted to determine how the students' critical thinking is reflected in their paper writing and explore how they utilize their critical thinking to construct their paper writing. The objects of this study were six students' paper writing results, and there were 15 students as the subjects in Paper Writing B Class in UNESA. This study used two main instruments to discuss two research objectives: the students' paper writing results and the critical thinking rubric proposed by Ball State University and the questionnaire. In addition, the researcher also used unstructured format interviews as a complementary instrument. This study used descriptive qualitative as the research design. The results of this study showed that critical thinking had been reflected in the students' paper writing, specifically in synthesizing and paraphrasing. Furthermore, it was discovered that the students used critical thinking to develop their paper writing and determine appropriate solutions to tackle the problems they encountered while developing their writing.

Keywords: critical thinking, paper writing, Paper Writing Class.

INTRODUCTION

As one of the 21st-century skills proposed by the National Education Association (NEA) in the United States of America, critical thinking is crucial for each individual to keep up in this modern era. Critical thinking can be described as the ability to dissect information objectively and provide a reasonable judgment, including reviewing sources, observable phenomena, and research findings (Snyder & Snyder, 2008). Paul & Elder (2020), in their book "The Miniature Guide to Critical Thinking: Concepts

and Tools," they stated that critical thinking is the practice of analyzing and evaluating cognitive processes to strengthen them. Cottrell (2005) stated that critical thinking usually deals with how a person uses the mind in search of the meaning and the reason for how something happens. It is in line with how Epstein & Kernberger (2006) explains critical thinking in their books. They define critical thinking as a skill to comprehend a particular topic and identify a logical reason why something happens to understand better. Critical thinking can also be described as a process in which someone attempt to analyze the reasoning of issue.

Several notable experts propose some criteria of critical thinking. Paul & Elder (2020) argue that the students must apply and possess eight standards to be critical thinkers. The definitive goal is for these following standards to become ingrained in their thinking to guide them to reason better. Clarity, accuracy, relevance, precision, depth, breadth, logic, and fairness are the parameters. They also added that there are additional eight criteria of critical thinking. These critical thinking skills can be identified into four universal standards: summarizing a topic or argument, providing evidence of research, analyzing data, and assessing conclusions.

There is an abundance of reasons why the students feel the need to develop their critical thinking skills. Possessing outstanding critical thinking can assist and prepare the students to achieve their academic success and to face upcoming challenging tasks, especially the students who are in tertiary education (Baki, 2016; Rashid & Hashim, 2008). Because when they can think critically, they would be able to collect relevant information and draw precise conclusions. Furthermore, Devika & Soumya (2016) claimed that a person who can think critically would accomplish many aspects of life. As a student who is the future nation makers, it is compulsory to prepare them with critical thinking skills. Mardalena (2012) argued that students who possess critical thinking skills might be able to analyze a particular case and assess and clarify the problems discovered and construct their thoughts about the issues, resulting in an in-depth explanation or examination of the topic being addressed. As a result, it is proposed that all educators should take a closer look at how they can help students develop their critical thinking skills.

One of the strategies that teachers may use to measure and promote critical thinking is to assign them to create paper writing. Paper writing or sometimes called 'literature review' according to Fink (2014) can be defined as a formal, precise, and reproducible means of describing, analyzing, and synthesizing a body of work created by researchers, scholarly professionals. A literature review reviews scientific documents, books, and other applicable references relating to a specific subject, field of study, or theory. It includes an overview, summary, and critical assessment of the works studied about the research issue. The statements are in line with the information from University of North Carolina (2020), which defined literature review as a summary of sources and a combination of both summary and synthesis into an organizational sequence. Moreover, based on Purdue University (2020), a literature review is a document or part of a specific type containing vital references on a subject and addressing the sources that refer to each other. A literature study may be part of a research paper or a

scholarly article; it is usually put after the introduction and before the research method section.

On the other hand, the literature review may also be individual items, either as class assignments or as an official publication. In a class setting, a literature review can help students familiarize themselves with a topic that they are interested in and find out the gaps in existing research to develop a theoretical framework for further study. As a publication, a literature review helps ease scholars' lives by collecting, summarizing, analyzing, and synthesizing existing research on a specific topic, which may help students and scholars explore a new research area. University of Wisconsin (2020) asserts that a literature review attempts to systematically examine a portion of a written body of information by summarizing, synthesizing, classifying, and comparing previous academic studies. Furthermore,

According to University of Southern California (2020), Fry (2020), and Purdue University (2020), a simple introduction-body-conclusion structure is widely used for most literature reviews. If the literature review is part of a broader article, the introduction and conclusion sections will be just a few sentences. The writer concentrates most of his/her focus on the body. If the analysis is a standalone article, the introduction and conclusion take up more room and give the writer a place apart from where he/she discusses the literature itself to discuss its goals, research methodology, and conclusions. The introduction paragraph includes an introduction section describing what the research topic and thesis are, point out general trends in what has been written about the subject of disagreements. In theory, methods, facts, and conclusions; or gaps in study and scholarship; or a particular concern or new viewpoint of immediate interest, and establish the writer's purpose (point of view) for reviewing the literature. Clarify the criteria to be included in the analysis and comparison of literature and review organization (sequence); and, if necessary, state whether such literature is included or not (scope). In the body part, the writer must use their critical thinking, which consists of summarizing and synthesizing: offer a summary of each source's key points and merge them into a cohesive whole; the second is analyzing and interpreting: do not only paraphrase other scholars, but also apply your explanations where appropriate, addressing the significance of results as a whole about the literature; and third, writing in well-structured sentences: to draw links, comparisons, and contrasts, use transition words and topic phrases. While in the conclusion paragraph includes restating and emphasizing the relevance of key findings that have been taken from literature.

Students at the undergraduate level typically started to get familiar with paper writing in Paper Writing class. It is shown that one of the learning targets of Paper Writing class is that students are expected to be able to write a coherent, unified scientific paper using determined language rules and rules of writing a scientific essay Buku Pedoman Mahasiswa UNESA (2017). Moreover, it is to aid them in writing their final undergraduate thesis at the end of their study. Therefore, the Paper Writing subject is also conducted to the undergraduate students in English Education major of the State University of Surabaya.

From the explanations above, it can be summarized that the students' critical thinking can be explored through the students' writing. Although critical thinking is a common objective and a 21st-century skill, it has not been highly promoted in paper writing. Many students in Indonesia do not realize that critical thinking skill development is very much involved in paper writing composition. In addition, Since there has been little research into students' critical thinking in paper writing, this study aims to analyze the critical thinking of UNESA English Department students and explore how they use their critical thinking in composing their paper writing. Therefore, the research objectives are formulated as follows:

1. To describe how critical thinking is reflected in the students' paper writing.
2. To explore how students use their critical thinking in constructing their paper writing.

METHOD

In this research, the researcher used descriptive qualitative research as the research design since the researcher needs to describe the result of the study in the form of description. The researcher used two main instruments and one complementary instrument to obtain the data. Ball State University's writing result and rubric were used to get the data regarding how critical thinking is reflected in the students' paper writing. Meanwhile, to obtain the other data—which was used to explore how the students use their critical thinking in constructing their paper writing—the researcher used a questionnaire adapted from the Memorial University of Newfoundland as the second instrument. Moreover, to obtain more detailed and convincing information, the researcher employed an interview as the supplementary instrument. The study was conducted in one of the Paper Writing Classes in UNESA. After all the data have been collected, the researcher analyzed the data, often called data analysis. The researcher used three stages of analyzing the data in a qualitative study proposed by Ary, Jacobs, Sorensen, & Walker (2014), familiarizing and organizing, coding and reducing, and interpreting and representing data.

RESULTS AND DISCUSSION

Critical Thinking in the Students' Paper Writing

In connection to the first research objective, which aims to investigate how critical thinking is reflected in the students' paper writing. The researcher analyzed the students' paper writing by utilizing a rubric called "Analyzing the Students' Critical Thinking on Paper Writing Rubric" proposed by Memorial University of Newfoundland & Ball State University. As previously stated, the rubric was selected by considering the components of paper writing and several criteria of critical thinking.

Based on the researcher's analysis using the rubric, all of the students' writing results were paper writing. It can be proven by the writings which already followed the structure of paper writing; introduction, body paragraph, and conclusion.

Since all of the students' writings were proven to be paper writing, six students' paper writing and analysis results are presented as representing the 15 students overall. There are four sections of paper writing where students' critical thinking can be reflected; summarized topic or argument, provided evidence of research, analyzed data, and assessed conclusions. To provide more detailed information, the results of the analysis on the selected six students' paper writing are described below:

The first paper writing analyzed by the researcher is from Student 1. From the paper writing composed by Student 1, the result of the first criterion—Summarized topic or argument—showed that she has consistently demonstrated the ability to organize information, leading to adequate understanding. It can be seen from the way Student 1 organized her paper writing coherently, particularly in the introduction, body, and conclusion part. In the introduction part, Student 1 has successfully organized her paper writing in an orderly fashion based on the template by University of Southern California (2020), Fry (2020), and Purdue University (2020). It includes the research topic, general trends in what has been written about the subject, research gaps in the study, and the research purpose. In the body part, Student 1 has also demonstrated her ability to organize her body paragraph from general (defining writing conference) to specific (aims of writing conference), leading to adequate understanding. Subsequently, Student 1 successfully organized her conclusion part by restating and emphasizing the relevance of the key findings that have been taken from the literature. The second criterion—Provided evidence of research—revealed that Student 1 has successfully gathered the information and scholars' opinions from appropriate and credible sources to support her argument. It can be seen that almost all the sources collected by Student 1 is recent and is ranked Q1-Q4 by

SCImago Journal Rank. As stated by University of Maryland Global Campus (2021) in an academic research paper, specifically paper writing, it is important to use reputable sources because the audience will expect the researcher to back up his/her claims with facts. Sources relevant and knowledgeable will help the researcher convince the audience, so carefully assessing and selecting sources is an essential part of writing a good, persuasive paper writing. The next criterion is analyzed data. It is considered as the one that reflects the students' critical thinking because in this section, each body paragraph should focus on a different theme related to the main point. Every paragraph will require the students to synthesize some of the reviewed readings in order to establish a clear link between the various sources. Moreover, the students need to evaluate each source in terms of how it contributes to the topics they are researching (Queensland University of Technology, 2021). In addition, to compare different materials and highlight similarities, differences, and connections, synthesizing requires critical reading and thinking. When writers effectively synthesize, they present new ideas based on interpretations of previously given facts or arguments (P. Lai, 2021). Based on the results of the rubric, Student 1 has successfully demonstrated ability to analyze and elaborate on interpretations of topic, some of the studies/articles were thoughtfully discussed with each other, not in isolation. Student 1 also focused on central ideas and evaluated sources and perspectives and identified key points of interest such as similarities, differences, and gaps. The last criterion that the researcher analyzed is assessed conclusion. On this criterion, the students are expected to summarize and emphasize the significance of the key findings the students gained from the literature. The results of the analysis showed that Student 1 successfully provided extensive reflection of idea evolution on argument development, clearly summarized literature review results, provided a compelling conclusion that is appropriately qualified.

The results of paper writing composed by Student 2 showed that the first criterion—Summarized topic or argument—revealed that Student 2 has consistently demonstrated the ability to organize information, leading to adequate understanding. It can be seen from how she organized her paper writing logically and consistently, especially in the introduction, body, and conclusion part. Student 2 has successfully organized her paper writing in an orderly fashion based on the template by University of Southern California (2020), Fry (2020), and Purdue University (2020). It consists of the research topic, general trends in what has been written about the subject, research gaps in the study, and the research purpose. In the body part, Student 2 has also demonstrated her ability to

organize her body paragraph from general (reflective writing as media in writing, reflective writing as homework) to specific (The Implementation of Reflective Writing in Writing Class), leading to adequate understanding.

Subsequently, Student 2 successfully organized her conclusion part by restating and emphasizing the relevance of the key findings that have been taken from the literature. The second criterion—Provided evidence of research—revealed that Student 2 has successfully gathered the information and scholars' opinions from appropriate and credible sources to support her argument. It can be seen that almost all the sources gathered by is recent, relevant to the topic of her paper writing, and is ranked Q1-Q4 by SCImago Journal Rank. As stated by University of Maryland Global Campus (2021), in an academic research paper, specifically paper writing, it is important to use reputable sources because the audience will expect the researcher to back up his/her claims with facts. Sources relevant and knowledgeable will help the researcher convince the audience, so carefully assessing and selecting sources is an important part of writing a good, persuasive paper writing. The next criterion is analyzed data. It is considered the one that reflects the students' critical thinking because, in this section, each body paragraph should focus on a different theme related to the main point. Every paragraph will require the students to synthesize some of the reviewed readings to establish a clear link between the various sources. Moreover, the students need to evaluate each source in terms of its contribution to the topics they are researching (Queensland University of Technology, 2021). In addition, to compare different materials and highlight similarities, differences, and connections, synthesizing requires critical reading and thinking. When writers effectively synthesize, they present new ideas based on interpretations of previously presented facts or arguments (P. Lai, 2021). In this part, Student 2 has successfully demonstrated the ability to analyze and elaborate on interpretations of the topic. Some of the studies/articles were thoughtfully discussed with each other, not in isolation. Student 2 also focused on central ideas, evaluated sources and perspectives, and identified key points of interest, such as similarities, differences, and gaps. The last criterion that the researcher analyzed is the assessed conclusion. In this criterion, the students are expected to summarize and emphasize the significance of the students' key findings from the literature. The analysis results showed that Student 2 successfully provided an extensive reflection of idea evolution on argument development, clearly summarized literature review results, provided a compelling conclusion that emphasized their significance.

Based on the paper writing composed by Student 7, the result of the first criteria—Summarized topic or argument—showed that Student 7 has inconsistently demonstrated ability to organize information, leading to inadequate understanding. It can be seen from how she inconsistently organized her paper writing, particularly in the introduction, body, and conclusion part. Student 7 has failed to organize her paper writing in an orderly fashion based on the template by University of Southern California (2020), Fry (2020), and Purdue University (2020). It consists of the research topic, general trends in what has been written about the subject, research gaps in the study, and the research purpose. Student 7 started her introduction paragraph by stating the research purpose instead of stating the general statement about her topic. In the body part, Student 7 has also failed to consistently demonstrate her ability to organize the body paragraph from general to specific or vice versa, leading to inadequate understanding.

However, Student 7 did a good job at organizing the conclusion paragraph by restating and emphasizing the relevance of the key findings that have been taken from the literature. The second criterion—Provided evidence of research—revealed that Student 7 accepted evidence at face value, even if incorrect, inadequate, or misrepresented, to support her argument. It can be proven by the types of sources she used. Although it is relevant to her topic, the credibility of sources used by Student 7 is questionable. Most of the sources she used are not listed in either SCImago Journal Rank or SINTA, for that matter, as stated by University of Maryland Global Campus (2021). In an academic research paper, specifically paper writing, it is important to use reputable sources because the audience will expect the researcher to back up his/her claims with facts. Sources relevant and knowledgeable will help the researcher convince the audience, so carefully assessing and selecting sources is an important part of writing a good, persuasive paper writing. The next criterion is analyzed data. It is considered the one that reflects the students' critical thinking because in this section, each body paragraph should focus on a different theme related to the main point. Every paragraph will require the students to synthesize some of the reviewed readings in order to establish a clear link between the various sources. Moreover, the students need to evaluate each source in terms of how it contributes to the topics they are researching Queensland University of Technology (2021). In addition, to compare different materials and highlight similarities, differences, and connections, synthesizing requires critical reading and thinking. When writers effectively synthesize, they present new ideas based on interpretations of previously presented facts or arguments (P. Lai, 2021). In this part, Student 7 only listed

findings, instead of synthesizing their reviewed readings. It can be seen in her body paragraph that Student 7 only listed and summarized the findings without adding her interpretations instead of evaluating each source to find a clear link between sources. The last criterion that the researcher analyzed is assessed conclusion. In this criterion, the students are expected to summarize and emphasize the significance of the key findings the students gained from the literature. The results of the analysis showed that in the conclusion part, Student 7 provided limited reflection of idea evolution on argument development, although Student 7's conclusion already consisted of the summary and emphasis of the significance of the key findings, her conclusion is still considered weak or unsupported by evidence.

The fourth paper writing analyzed by the researcher is from Student 10. From the paper writing composed by Student 10, the result of the first criteria—Summarized topic or argument—showed that Student 10 has inconsistently demonstrated ability to organize information, leading to inadequate understanding. It can be seen from how she inconsistently organized her paper writing, particularly in the introduction and conclusion part. In the introduction, Student 10 has failed to organize her paper writing in an orderly fashion based on the template by University of Southern California (2020), Fry (2020), and Purdue University (2020). It consists of the research topic, general trends in what has been written about the subject, research gaps in the study, and the research purpose.

Student 10 lacked the research gap in her introduction part; besides, she did not put sufficient information regarding general information about the topic. However, in the body part, Student 10 has successfully demonstrated her ability to organize her body paragraph from general to specific (Plagiarism scope, why plagiarism happens, way to avoid plagiarism). Subsequently, in composing the conclusion paragraph, Student 10 did a good job organizing the conclusion paragraph by restating and emphasizing the relevance of the key findings taken from the literature. The second criterion—Provided evidence of research—revealed that Student 10 accepted evidence at face value, even if incorrect, inadequate, or misrepresented, to support her argument. It can be proven by the types of sources she used. Although it is relevant with her topic and credible, most of the sources she used are outdated, averaging 10-15 years back, as stated by University of Maryland Global Campus (2021) that in an academic research paper, specifically paper writing, it is important to use reputable sources because the audience will expect the researcher to back up his/her claims with facts. Sources relevant and knowledgeable will help the

researcher convince the audience, so carefully assessing and selecting sources is an important part of writing a good, persuasive paper writing. The following criterion is analyzed data. It is considered the one that reflects the students' critical thinking because each body paragraph should focus on a different theme related to the main point in this section. Every paragraph will require the students to synthesize some of the reviewed readings in order to establish a clear link between the various sources. Moreover, the students need to evaluate each source in terms of how it contributes to the topics they are researching (Queensland University of Technology, 2021). In addition, to compare different materials and highlight similarities, differences, and connections, synthesizing requires critical reading and thinking. When writers effectively synthesize, they present new ideas based on interpretations of previously presented facts or arguments (P. Lai, 2021). In this part, Student 4 only listed findings, instead of synthesizing her reviewed readings. It can be seen in her body paragraph that Student 4 only listed and summarized the findings without adding her interpretations instead of evaluating each source to find a clear link between sources. The last criterion that the researcher analyzed is assessed conclusion. In this criterion, the students are expected to summarize and emphasize the significance of the key findings the students gained from the literature. The results of the analysis showed that in the conclusion part, Student 10 provided limited reflection of idea evolution on argument development, although Student 10's conclusion already consisted of the summary and emphasis of the significance of the key findings, her conclusion is still considered weak or unsupported by evidence.

The results of paper writing composed by Student 13, in the first criteria—Summarized topic or argument—showed that Student 13 has consistently demonstrated the ability to organize information, leading to adequate understanding. It can be seen from how he organized her paper writing logically and consistently, especially in the introduction, body, and conclusion part. Student 13 has successfully organized his paper writing in an orderly fashion based on the template by University of Southern California (2020), Fry (2020), and Purdue University (2020). It consists of the research topic, general trends in what has been written about the subject, research gaps in the study, and the research purpose. In the body part, Student 13 has also demonstrated his ability to organize the body paragraph from general to specific (Reading habit, factors of reading habit, importance of reading habit), leading to adequate understanding. Subsequently, Student 13 successfully organized his conclusion part by restating and emphasizing the relevance of the key

findings that have been taken from the literature. The second criterion—Provided evidence of research—revealed that Student 13 has successfully gathered the information and scholars' opinions from appropriate, relevant, and credible sources to support his argument. It can be seen that almost all the sources collected by is recent, relevant to the topic of his paper writing, and is ranked Q1-Q4 by SCImago Journal Rank, as stated by University of Maryland Global Campus (2021) that in an academic research paper, specifically paper writing, it is important to use reputable sources because the audience will expect the researcher to back up his/her claims with facts. Sources relevant and knowledgeable will help the researcher convince the audience, so carefully assessing and selecting sources is an essential part of writing a good, persuasive paper writing. The next criterion is analyzed data. It is considered as the one that reflects the students' critical thinking because in this section, each body paragraph should focus on a different theme related to the main point. Every paragraph will require the students to synthesize some of the reviewed readings in order to establish a clear link between the various sources. Moreover, the students need to evaluate each source in terms of how it contributes to the topics they are researching Queensland University of Technology (2021). In addition, to compare different materials and highlight similarities, differences, and connections, synthesizing requires critical reading and thinking. When writers effectively synthesize, they present new ideas based on interpretations of previously presented facts or arguments (P. Lai, 2021). In this part, Student 13 has successfully demonstrated ability to analyze and elaborate on interpretations of topic, some of the studies/articles were thoughtfully discussed with each other, not in isolation. Student 13 also focused on central ideas and evaluated sources and perspectives and identified key points of interest such as similarities, differences, and gaps. The last criterion that the researcher analyzed is assessed conclusion. In this criterion, the students are expected to summarize and emphasize the significance of the key findings the students gained from the literature. The results of the analysis showed that Student 13 successfully provided extensive reflection of idea evolution on argument development, clearly summarized literature review results, provided a compelling conclusion that emphasized their significance.

Student 15's paper writing results revealed that the first criterion—Summarized topic or argument—showed that Student 15 has inconsistently demonstrated the ability to organize information, leading to inadequate understanding. It can be seen from how she inconsistently organized her paper writing, particularly in the

introduction part. In the introduction, Student 15 has failed to organize her paper writing in an orderly fashion based on the template by University of Southern California, (2020), Fry (2020), and Purdue University (2020). It consists of the research topic, general trends in what has been written about the subject, research gaps in the study, and the research purpose. Student 15 failed to include the research gap and research purpose in her introduction part. However, in the body part, Student 15 has successfully demonstrated her ability to organize her body paragraph from general to specific (Types of peer feedback, the implementation of written peer feedback in ESL/EFL writing performance). Subsequently, in composing the conclusion paragraph, Student 15 did a good job organizing the conclusion paragraph by restating and emphasizing the relevance of the key findings taken from the literature. The second criterion—Provided evidence of research—revealed that Student 15 accepted evidence at face value, even if incorrect, inadequate, or misrepresented, to support her argument. It can be proven by the types of sources she used. Although it is relevant with her topic and credible, most of the sources she used are outdated, averaging 10-15 years back, as stated by University of Maryland Global Campus (2021) that in an academic research paper, specifically paper writing, it is important to use reputable sources because the audience will expect the researcher to back up his/her claims with facts. Sources relevant and knowledgeable will help the researcher convince the audience, so carefully assessing and selecting sources is an essential part of writing a good, persuasive paper writing. The following criterion is analyzed data. It is considered as the one that reflects the students' critical thinking because in this section, each body paragraph should focus on a different theme related to the main point. Every paragraph will require the students to synthesize some of the reviewed readings in order to establish a clear link between the various sources. Moreover, the students need to evaluate each source in terms of how it contributes to the topics they are researching Queensland University of Technology (2021). In addition, to compare different materials and highlight similarities, differences, and connections, synthesizing requires critical reading and thinking. When writers effectively synthesize, they present new ideas based on interpretations of previously shown facts or arguments (P. Lai, 2021). In this part, Student 15 only listed findings, instead of synthesizing her reviewed readings. It can be seen in her body paragraph that Student 15 only listed and summarized the findings without adding her interpretations instead of evaluating each source to find a clear link between sources. The last criterion that the researcher analyzed is assessed conclusion. In this criterion, the students are expected to summarize and

emphasize the significance of the key findings the students gained from the literature. The results of the analysis showed that in the conclusion part, Student 15 provided limited reflection of idea evolution on argument development, although Student 15's conclusion already consisted of the summary and emphasis of the significance of the key findings, her conclusion is still considered weak or unsupported by evidence.

The Students' Implementation of Critical Thinking in Constructing Paper Essay

In order to collect the data to discuss the second research objectives, the researcher chose two instruments—questionnaire as compulsory and interview as complementary. The questionnaire consists of 11 questions in total and is adapted from the *Memorial University of Newfoundland* by incorporating critical thinking criteria proposed by Paul & Elder (2020) integrated with the elements of literature review presented by *Ball State University* to explore how EFL students implement their critical thinking in composing their paper writing.

First, it is the question about EFL's general comprehension of paper writing; "Do you know what paper writing is? What makes it different from other types of an academic essay?" The results showed that all of the students can deliberately elaborate the definition of paper writing and differentiate between paper writing and other types of academic writing. For instance, the response from Student 7, "*Paper writing is a piece of academic writing that provides analysis, interpretation, and argument based on in-depth independent research. It is different from other academic essays.*" And Student 13 "*Paper writing is one of the scientific works which contain specific issues to be discussed rhetorically. One thing that makes it different from the other types of academic essay-this scientific work is the very basic form of academic essay. Usually, the ideas inside the paper come from library research results.*"

Next, the answer to the second question, "In choosing a good topic for your paper, do you have a certain consideration? What are they?" showed that 4 out of 6 students agree that they usually choose a topic that interests them. For example, "*It must be something that interests me. I choose writing skill as my topic because I am interested of writing.*" while one student chooses the topic based on what's hot from the news, e.g., "*In choosing a good topic for my paper, I usually find the hottest issues from CNN, BBC, New York Times, Jakarta Post, etc. Then, after finding the best topic, I ask my supervisor's suggestion to make it official.*". Another student considers a topic based on its usefulness and accessibility, e.g., "*I think I should consider a topic that can be researched or not, is overused or not, and can be useful or not.*"

Then, in answering the third question regarding the kind of research work the students include in their paper writing, "What kind of research works do you include in your paper writing? (e.g., e-book, journal article, proceeding) What is your consideration in choosing a good source?" The results revealed that all of the students gathered the research works from article journal and e-books that suited their topic, e.g., *"Journal article, and books. My topic is about writing conferences, so all the sources are about writing conferences"* *"I usually choose a journal to support my topic. My topic is about a podcast in writing"*. Regarding the students' considerations in choosing a good source, the researcher concluded that before determining whether or not the sources are good enough to use in their paper writing, the majority of the students checked the importance, rank, and reputation of both the sources, author, and publisher, as well as the novelty of sources as their key consideration. They typically selected books, journals, articles, and papers that were relevant to their research. They also chose the ones with high rankings by looking them up on a website called *SCImago Journal Rank* and *SINTA*. They found a work to be a good source if it had Q1, Q2, Q3, or Q4 (high values) for *SCImago Journal Rank* and S1, S2, S3, S4 for *SINTA Journals* as this indicates that the work/source is reliable and worth reading and referring to. Their responses also indicated that they only used those with reputable authors and publishers. For instance, *"I usually choose based on the website, and also the ranking of the journal whether it is Q1-Q4 or not, as well as any other studies that match my topic, but mostly on the domain (.edu), online publications like Elsevier."* *"In choosing sources, in addition to being relevant to my topic, I also see who publishes it, how many Qs, so I always check on Scimago Q whether it is registered or not, because in choosing a journal, it must be appropriate and quality especially for writing, you have to choose an appropriate and quality journal."*

Furthermore, in answering the fourth question about what elements the students included in writing the introduction, "How do you write your introduction part? What elements have you included in this part?" the results showed that in writing introduction part, 5 out of 6 students included a general statement, research problem, identification of gap, and statement of aims, and thesis statements into their introduction part in paper writing, for example, *"Based on the explanation from my lecturer during the paper writing class, Introduction is contained of a general statement, identification of gap, and statement of aims."* *"The elements I included in my introduction part are the main problem on which my chosen topic is based, general understanding about my topic, and why my topic*

can solve the problem, I state before." However, one student answered differently, e.g., *"I give the reader an idea of what I learn and presents an argument in the form of a thesis statement."*

Next, moving on to the fifth question regarding how the students compose the body "How do you construct your body essay in your paper writing?" the results revealed that in writing body essay, all of the students included main ideas, opinions, analyses, interpretations, and discussions that aim to explain the topics or issues that have been put forward in the introduction, e.g., *"Body essay is a part of the text that support the evidence of the thesis statement of an essay. I construct my body essay by analyzing the previous study. it is because body essay contains main ideas, opinions, analyzes, interpretations, and discussions that aim to explain the topics or issues that have been put forward in the introduction."* They also composed this part by collecting significant ideas to be discussed and then organize it according to their scope, e.g., *"The body of an essay include a group of sentences that relate to a specific topic or idea around the main point of the essay. It is important to write and organize two to three full-body essays to develop it properly."*

Moreover, in constructing the body paragraph, all the students explained the points of their argument and also from the researcher in previous research. This section is a development of the main idea in their paper writing. In addition, they provided supporting paragraphs to support the main idea in their paper writing in the body part.

Moreover, the student's answers to the next question regarding how the students write the conclusion paragraph "How do you write your conclusion paragraph?" the researcher drew the inference that in writing conclusion part, all the students restated what they wrote in the background and the body then they added their arguments, e.g., *"I rewrite the main points, the essay body, and I restate my thesis statement. Then in the closing section, I restate what I wrote in the background and the body, then I add my arguments."* Moreover, their conclusion part contains their opinion, which is supported by related articles, a summary of the introduction and body concisely and comprehensively, e.g., *"In my conclusion paragraph, it is a must to link the discussed issue back to the previous part. Certainly, this stage will strengthen my set of argumentations in my paper essay."*

The next, the answer to the question regarding the strategies the students do to collect different arguments from different sources into a coherent paragraph "What are the strategies that you do to collect different arguments from different sources into a coherent paragraph? Do you use paraphrasing and synthesizing?" the researcher found that all the students implemented paraphrasing all the time

because paraphrasing is important to get the author's idea, e.g., *"Yes, I use the paraphrasing technique, which is about 70% of my total writing because paraphrasing is important to get the author's idea using my own words but does not leave the author's intention."* moreover, they also stated that in paper writing composition, all paraphrasing is mandatory to minimize and avoid plagiarism, and paraphrasing is one way to strengthen our critical thinking skills, e.g., *"Paraphrasing is the breath of academic writers, meaning that paraphrasing is a bread and butter, so in paper writing composition, all paraphrasing is mandatory to minimize plagiarism, and paraphrasing is one way to strengthen our critical thinking skills at this time, so paraphrasing is very, very important and very very often."* As for synthesizing, it is also shown that 4 out of 6 students used synthesizing because it is needed when they meet several ideas from several experts and they want to make it in a solid sentence. Moreover, they did not use this technique frequently in their paper writing, e.g., *"I also use synthesizing technique—only two times. Namely in the introduction and body. And that's just a combination of 2 related articles that I combine into one sentence"* *"Yes, I use this technique to give my opinion or view on problems that I find on the topics I use in my paper writing. The synthesising results were also obtained from various sources or obtained from the statements of researchers in previous studies. Here I also provide or collect various information derived from previous research"* However, the remaining students did not bother to use synthesizing in their paper writing, e.g., *"For synthesizing, I don't use it. The most I use is paraphrasing, so for synthesizing, I don't directly cite it from the source, then, I copy and paste and rewording it."*

Lastly, to answer the last question regarding the difficulties encountered by the students in the process of composing paper writing and how they overcome them "Explain the problems you usually find while constructing your paper writing. Then how do you overcome those problems?" it can be inferred that two students found difficulties in paraphrasing the source's ideas into their own words, e.g., *"The problem that I usually find on constructing my paper is paraphrasing to make my explanation in my paper crystal clear by using the right word choices."* Moreover, the other two students stated that they usually experienced some difficulties while attempting to construct their paper writing; regarding synthesizing multiple sources into one and adding their interpretation in it, e.g., *"I usually find them difficult to write the systematic paragraph and combine word for word so that it becomes a coherent paragraph, and also synthesizing"* Not only that, the remaining two students also faced difficulties in finding the appropriate sources and organizing their paper writing into a coherent

paragraph, e.g., *"Usually I have difficulties in searching the articles which have a high rank in both of Scimago and Sinta."* In addition, the students' answers revealed that all of them successfully overcome their difficulties by trying to use new vocabularies which have a similar meaning, re-reading the journal so that it is easy to understand the language, e.g., *"by continuing to read the journal so that it is easy to understand the language and also easy to write in research"* and trying to make the paragraph in a good order, e.g., *"Trying to use new vocabularies which have a similar meaning, trying to make the paragraph in a good order (conjunction needed)."*

The Interview on the Students' Implementation of Critical Thinking in Constructing Paper Essay

Given that interview was only used as a complementary instrument, the questions in interview were identical to those in questionnaire. Following the interview, the researcher checked whether the students' answers matched those on the questionnaire. The study found that students' answers to the interview questions matched the results of the questionnaire.

On account of the interview results, it can be concluded that all the data collected by the researcher is already convincing and complete to be employed to answer the second research objective, that is, "How do the students use their critical thinking in constructing their paper writing?" The reasons are because first, the researcher has already collected the data by using two instruments: questionnaire and interview. Second, the results of the questionnaire are already in congruence with the results of the interview.

CONCLUSION

Concerning the students' paper writing analysis by using a rubric which is intended to discuss the first research objective regarding how critical thinking is reflected in their paper writing, it can be inferred that the students' critical thinking is reflected in their paper writing consisting of summarized topic or argument, provided evidence of research, analyzed data, and assessed conclusions.

Moreover, based on the findings of the previously mentioned questionnaire and interview aimed for discussing the second research objective, it can be concluded that the majority of students in UNESA's Paper Writing Class were implementing critical thinking in composing their paper writing beginning with when they searched for a good topic to be used in their paper writing. Most of them had some considerations and went through a series of steps to be convinced that their chosen topics were relevant to their interests. Moreover, the students also implemented critical thinking while they were

synthesizing and paraphrasing their sources and putting them as a new whole in their paper. At last, the students were thinking critically while figuring out and deciding on the best solutions to the issues they encountered while writing their paper writing. The students' answers to both the questionnaire and the interview revealed that they were both able to recognise challenges and ways to solve them.

Suggestions

Following the positive results of this study, the researcher proposes several suggestions for future researchers, EFL teachers, and students. First, future researchers should conduct additional research on this topic, as there has been little research on this topic. This study may serve as a starting point for them to conduct a study on the same topic. Second, EFL teachers should broaden their knowledge of paper writing and begin introducing paper writing to students, recognizing its importance in developing critical thinking skills. Finally, EFL students must begin seeking information about paper writing because most students in Indonesia seem to be unaware of what a paper is or how important it is to their critical thinking advancement.

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