



## EFL POSTGRADUATE STUDENTS' CRITICAL THINKING BELIEFS AND THEIR ABILITY IN WRITING RESEARCH METHODOLOGY

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### ABSTRACT

The need to think critically is essential in this era and people must be competent in analyzing, evaluating, and problem-solving to stay afloat. This study aims to know the level of postgraduate students' critical thinking beliefs and their performance in writing the research methodology section of the research proposal. The study was a mixed-method study in which the quantitative method was applied to calculate the level of critical thinking belief by using a questionnaire, and qualitative data to analyze the draft of postgraduate students' writing. The questionnaire was distributed to the participants (five EFL postgraduate students), and documentation of their final project was collected. The study found that the EFL postgraduate students' critical thinking beliefs were on the level of valuing and less on confidence in critical thinking. The level of valuing critical thinking meant EFL postgraduate students realized that critical thinking is a crucial ability they should master. However, they cannot implement it consistently for their study or social problems in daily life. The result of the content analysis of writing (research methodology) varies widely: some students were proficient in communication and problem-solving, and some were not, and synthesizing abilities became the lowest achievement of students' skills in writing.

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### ABSTRAK

Pada abad 21, orang-orang hidup di era modern dimana semua teknologi dan informasi berkembang dengan sangat pesat. Kebutuhan untuk berfikir kritis sangat diperlukan untuk menjalani kehidupan sehari-hari. Semua orang harus pandai dalam menganalisa, mengevaluasi, dan melakukan pemecahan masalah untuk tetap bertahan jika mereka tidak ingin tertinggal oleh zaman. Penelitian ini dilakukan dengan tujuan untuk mengetahui tingkat berfikir kritis oleh mahasiswa pascasarjana dan kemampuan mereka dalam menulis metodologi penelitian. Penelitian ini menggunakan metode mix method. Kuesioner dibagikan kepada para partisipan dan dokumentasi tugas akhir mereka telah dilakukan. Hasil dari penelitian ini menunjukkan bahwa mahasiswa pascasarjana mendapat nilai 4.20 dalam kategori valuing in critical thinking dan mereka lemah dalam confidence in critical thinking. Kemampuan mereka dalam menulis research methodology juga bervariasi. Beberapa dari mereka bagus dalam memberikan informasi, sebagian lagi tidak. Lalu, mereka mendapatkan nilai yang rendah dalam kegiatan mensintesis informasi.

**Kata Kunci:** *Kepercayaan berfikir kritis; Mahasiswa pascasarjana; Research methodology; Tulisan*

## **INTRODUCTION**

Critical thinking is one of competencies that should be mastered and practiced in daily activities. Salahshoor and Rafiee (2016) expressed that critical thinking was considered as an ability for a lifetime that people need in their academic and social lives. Why is critical thinking considered as a crucial competence for a lifetime? Haseli and Rezaii (2013) argued that critical thinking should be developed to face the changes of the 21st century and solve complicated societal problems. Critical thinking skills encourage someone to think deeply about information they get to avoid misconceptions, including biased persuasion, prejudice, irrational attitude, or ideas (Ratnadewi & Yuniarti, 2019). Critical thinking is not only about the perception that people can answer the question quickly and correctly but how their minds can think and process the information logically, argue and solve the problems, and know the factual information based on the source. Due to the importance of critical thinking, it must be introduced and taught to the students in any subject, such as the English language, as early as possible to expand their potentials.

In the Indonesian context, English has been taught and used as a foreign language (Marlina, 2012). It has a challenge for the teachers' and students' selves in the context of teaching and learning. Sulistiyo (2016) stated that most English teachers faced challenges in the form of low-motivated students and an environment that does not support them in learning the English language. Thus, EFL students should make a big effort to think critically in terms of understanding the context and structure of the language. Allison et al. (1998) argued that students who do not use English as their first language might need assistance and guidance to hone their critical thinking in arguing and understanding the context of the language. EFL students' critical thinking can be reflected through one of the language skills, namely writing (Indah, 2017), via idea development, reasoning, persuading, and so on. In addition, reading can be a support to enrich knowledge with various kinds of reliable information to think even more critically by absorbing all the information, experience, and ideas provided in books (Wijayanti et al., 2015). Additionally, it is also believed that reading can help the EFL students find many new vocabularies, be familiar with the grammar and punctuation, and understand the meaning of the sentence.

In higher education level, students must practice their critical thinking in many aspects. Critical thinking should not be just another option for their level but rather an indispensable ability to confront tremendous amounts of information on how they can solve and cover the problem well (Angeli & Valanides, 2009). The big phase they should confront is the process of writing their final project, namely Research Proposal (RP). RP is the formal document written by postgraduate students which describes detailed information about the proposed program. Yamin and Purwati (2020) presented that writing an RP should be supported by the self-ability to organize mindset, thought, idea, fact, and problem that should be formulated into the research problem. It also needed problem-solving ability to set the appropriate methodology and instrument to get easy onwards. The quality of their final product or RP depends on how they read much information, analyze it, give their further argument, and then compile those became the unity of their ideas. Butterworth and Thwaites (2013) suggested that the core activities of critical

thinking are analysis, evaluation, and further argument. Those activities are needed and should be implemented in writing RP, especially in the research methodology section.

In writing RP, the writer should deal with three chapters; introduction or background of the study, literature review, and research methodology (philips, 2013). Each chapter should begin with a brief introduction to guide the reader into the fundamental substance of that part. Then, it should end with a summary capturing the main points that have been discussed in that chapter. The complex one is on writing research methodology. Igwenagu (2016) said that the research methodology offers the theoretical underpinning for understanding which method, set of techniques, or best practices can be applied to specific cases, for instance, to ascertain a particular outcome. In designing research methodology, the students should be able to handle the problem, create an appropriate design, look for the possibilities of the unpredictable case, and many more. Thus, the ability of critical thinking is critical since it has a crucial role to progress significantly in finishing an RP. Less critical thinking could affect how they compile the information and source in a paragraph because the ability of writing and thinking are interconnected (Rahmat et al., 2020).

Several studies (such as Kumar & Refaei, 2017; Mbato, 2019; Rahmawati, 2018; Sabu & Vernandes, 2019; Strakov & Cimermanov, 2018; and Devira & Westin, 2021) showed their point of view related to the existences of critical thinking in education. First, Kumar and Refaei (2017) found that university students in a second-year writing course needed more practice in developing their writing ability to establish the significant topic they were writing. It means that the university students could not write the ideas to give any information to the readers well. Second, the research on the ability of critical thinking in speaking skills was conducted by Rahmawati (2018) in one of senior high schools in Majalengka, Indonesia. She found that the students' ability to think critically in speaking activities was relatively low. Then, Mbato (2019) researched the area of critical thinking in reading skills among university students in the English Education Study Program. The result implied that the students were yet confident in implementing critical thinking strategies in reading. Sabu and Vernandes (2019), on the other hand, invited the second-year university students of the English department to join the study and revealed that the university students' ability in critical thinking in writing an argumentative essay was average. Another study about students' critical thinking beliefs was also conducted by Straková and Cimermanová (2018) which involved students' teachers and found that they were homogeneous on valuing critical thinking rather than on confidence in critical thinking. Recently, Devira and Westin (2021) found that the students in the Introductory Academic Program (IAP) at the University of Adelaide, South Australia, needed a guide to improve their confidence and more scaffolding to support the development of their ability in academic writing.

Based on the previous studies, it can be highlighted that most students had difficulty in applying the ability of critical thinking, especially if it was linked to the language skills such as writing, speaking, and reading. The result of earlier studies showed that the students were low in writing in terms of establishing the significant topic, lacked in associating critical thinking with speaking, and were not confident

enough in reading. All cases were taken at the level of undergraduate students. Slightly different from the previous studies, the current study makes a breakthrough by including participants from a higher level (EFL postgraduate students) where they have previous experience in writing and measuring their critical thinking beliefs. The current study focuses on knowing the level of EFL postgraduate students' critical thinking beliefs and how they manifest their critical thinking in writing research proposal, specifically on chapter 3 (research methodology).

## **METHOD**

The mixed-methods is used as the research design of this study. Ary et al. (2010) described the mixed method as a blended technique of quantitative and qualitative in particular ways, with each approach adding something to the comprehension of the peculiarity. The mixed-method can be used to understand connections or contradictions between qualitative and quantitative data (Shorten & Smith, 2017). The purpose of this study was to know the level of EFL postgraduate students' critical thinking beliefs and the quality of students' writing an RP, especially in designing the research, so the use of mixed methods was applicable for the study. The quantitative method was applied for calculating data of critical thinking belief and for participant selection by using stratified random sampling. Maheshwari (2017) stated that stratified random sampling is a method that involves the division of a population into smaller groups. Then, basic interpretative studies represented the qualitative studies were applied to analyze the writing of postgraduate students for deep analysis.

There were two research instruments in this study. *First*, a critical thinking questionnaire adapted from Stupple et al. (2017) consists of 27 items. It measured the level of critical thinking beliefs of EFL postgraduate students. Critical thinking belief was the postgraduate students' motivation and willingness to avoid the process of fast answers. The questionnaire consisted of three factors, namely confidence in critical thinking (17 items), valuing in critical thinking (6 items), and avoidance and/or misconception of critical thinking (4 items). Confidence in critical thinking correlates with the power to override ones' convictions while thinking about the strength of value toward something; valuing in critical thinking refers to both the power to override belief and also the power to assess argument strength, while misconception is negatively connected with the ability to assess argument strength but more likely to guess or rush in making a decision. The questionnaire scale was modified to become 1-5 to make it easy for the participants to decide their answers. Then, the term psychology in question four of the questionnaire was changed became the term English Language, where the discipline was matched between the areas of the study. *Second*, documentation was done to collect the data on postgraduate students' writing RP.

Next, to measure the critical thinking in writing, the rubric of critical thinking skills from College (2011) was adapted. It consists of critical thinking aspects such as communication, analysis, problem-solving, evaluation, and synthesis. Then, the aspects of reflection on its rubric were removed because it does not have role play to write the research design of RP. The aspect of communication means the ability to serve the appropriate information, analysis was the skill to define which appropriate participants or methodology for their research, problem-solving was

the ability to select one of the available solutions they found while finishing the research, evaluation referred to the ability for identifying the strength or weakness of cases on their study, and synthesize was how the student found and combined the detail information to be reliable information.

The participants of this study were five EFL postgraduate students in the third semester. The participants were selected based on several reasons (1) they had taken English major as their discipline at their undergraduate level, meaning that they had experienced writing RP using the English language, (2) They are at the same university, so they have the same treatment in a course, (3) They are English teachers where critical thinking is crucial to support their performance as teachers.

Firstly, the critical thinking questionnaires were distributed via a link (google form). After the participants accessed the link, they read guidance on how they should fill out the questionnaires correctly. Secondly, documentation was done by collecting the postgraduate students' final projects in the course of Research Proposal. Thirdly, data reduction. The data needed on this study was chapter 3 of the research proposal, hence the data reduction would remove the introduction and literature review sections.

## FINDINGS

### EFL Postgraduate Students' Critical Thinking Beliefs

After the data from the questionnaire of the Critical Thinking was obtained, the analysis was done by using IBM SPSS Statistics 25, revealing that the sample distribution was normal (for all three variables) as shown in the result of the analysis table below:

**Table 1.** Descriptive statistics for variables Confidence in Critical Thinking (CCT), Valuing in Critical Thinking (VCT), and Misconception (MIS)

		Statistics		
		CCT	VCT	MIS
N	Valid	5	5	5
	Missing	0	0	0
Mean		3.00	4.20	3.20
Median		3.00	4.00	3.00
Mode		3	4	3 <sup>a</sup>
Std. Deviation		.000	.447	.837
Minimum		3	4	2
Maximum		3	5	4

<sup>a</sup>. Multiple modes exist. The smallest value is shown.

Table 1 shows the result of EFL postgraduate students' critical thinking beliefs. The mean score of confidence in critical thinking (CCT) was 3.00. This was the lowest score between valuing in critical thinking (VCT) and Misconception (MIS). Then, followed by the level of Misconception with 3.20. Next, the highest mean score was 4.20 on the level of valuing in critical thinking (MIS). The data confirmed that EFL postgraduate students' critical thinking beliefs were at the level of valuing in critical thinking. However, they were low on confidence in critical thinking.

The following is the frequency table of the critical thinking belief levels. The result of each table did not compare to another table; it was only seen for the frequency in each scale.

**Table 2.** Frequency table of confidence in critical thinking (CCT)

CCT					
		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	3	5	100.0	100.0	100.0

Firstly, the categorization of confidence in critical thinking (CCT) was to measure the students' ideas and feelings that was represented the positive value. Confidence in critical thinking is the highest level in critical thinking belief, unfortunately, the EFL postgraduate students prefer to choose the safe answer (neutral). One of the statements on the level of confidence in critical thinking (CCT) was:

*"I can express my critical thinking well in my written work".*

Then, based on the analysis presented in Table 2, all participants chose 3 (neutral). No one chose the scale of agree or disagree as their responses from their ability in writing. Different from expectation, this study found that EFL postgraduate students were less in expressing their ideas in writing.

**Table 3.** Frequency table of Valuing in Critical Thinking (VCT)

VCT					
		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	4	4	80.0	80.0	80.0
	5	1	20.0	20.0	100.0
	Total	5	100.0	100.0	

Table 3 shows the frequency score of valuing in critical thinking. The number of scales ranges from agree to strongly agree. At this level, EFL postgraduate students show positive value in their perception of critical thinking. One of the statements on the level of valuing in critical thinking was:

*"Critical thinking is essential in higher education"*

Based on Table 3, the EFL postgraduate students agreed with the statement. The scale they chose was strongly agree and the rest answered agree with the percentage of 80%.

**Table 4.** Frequency table of Misconception (MIS)

MISS					
		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	2	1	20.0	20.0	20.0
	3	2	40.0	40.0	60.0
	4	2	40.0	40.0	100.0
	Total	5	100.0	100.0	

Table 4 describes the data calculation of misconception. The scale range of this level was more varied, which was around 2-3-4. The data showed that 20% of participants chose disagree, followed by 40% of participants who chose neutral, and 40% chose agree. One of the statements in this level was:

*“I prefer to do things where there is a quick answer”*

This statement received a varied scale range. One EFL postgraduate student disagreed about the statement, two students were neutral, and the rest agreed with the statement. This result confirmed that the EFL postgraduate students preferred practical things and ignored depth thinking to decide something. The level of misconception was the negative value in the category of critical thinking beliefs.

In conclusion, the mean score of EFL postgraduate students showed that they were at the level of valuing in critical thinking with 4.20. It was the highest score compared to the level of confidence in critical thinking and misconception. It indicates that the post graduate students did not have enough confidence in critical thinking and preferred safe mode answer.

### **EFL Postgraduate Students’ Ability in Writing**

Based on the content analysis, the EFL postgraduate students’ abilities in writing are spread into five categories, namely exemplary, proficient, developing, emerging, and not present. Then, the rubric of critical thinking, as described in the Method section, was adapted by considering the reason why this framework can function as a measuring tool for critical thinking skills implemented in the current project through the students’ academic writing. In addition, the original rubric consisted of some aspects needed in analyzing the students’ academic writing such as Communication, Analysis, Problem-Solving, Evaluation, Synthesis, and Reflection, but the aspect of critical thinking in terms of reflection was removed because it was not appropriate to analyze the research methodology section. Those aspects of critical thinking related to the intrinsic or extrinsic aspects had been applied to this recent study.

In the following, Table 5 presents the result of the content analysis of the EFL postgraduate students in writing research methodology:

**Table 5.** EFL Postgraduate Students’ Performance on Critical Thinking

Performance Critical Thinking Skills	Exemplary					Proficient					Developing					Emerging					Not Present				
	1	2	3	4	5	1	2	3	4	5	1	2	3	4	5	1	2	3	4	5	1	2	3	4	5
Communication						+	+		+							+					+				
Analysis						+	+		+							+					+				
Problem Solving						+	+	+								+									+
Evaluation									+		+	+				+					+				
Synthesis						+	+	+								+									+

The analysis result found that five postgraduate students have diverse tendencies in performing the critical thinking. The explanations are below:

### **Respondent 1 (R1)**

The **Communication** skill of R1 was in the emerging level. R1 only provided simple ways by stating the research design method only. Adding the reference after the information about research methods' explanation did not make the statement preferable because there was no the writers' argument. The statement of communication or explanation R1 served *"Qualitative study will be conducted in finishing this research"*. This statement should be followed by the writers' argument or logical thinking about the benefit of a qualitative method for his research, then the writer can use references to support the argument. **The Analysis** skill was shown in identifying the participants. R1 showed that he did not choose the participants randomly; there was another sense which was taken into consideration even though it was not explained in detail. The sample of writing *"The participants of this study were the nonnative-teachers and nonnative-students of certain secondary schools. The use of non-native teacher as the participants is because both the teachers and the students will share the similar politeness value."*

Then, another skill performed by R1 was **Problem Solving** which was on proficient category. He determined that the technique used to collect the data was appropriate and had been adjusted to the situation during the pandemic which was carried out online. The writer did not use one online platform only, but several online platforms that were accessible for the participants. Next, the performance of **Evaluation**, R1 was on developing. He was less in-depth evaluation and detail in giving information to the readers. The performance included in **synthesis skill** was found when he combined the data to answer the first research question, then connected it into the data to answer the second research question. So, the data obtained were sustainable to answer the research question.

### **Respondent 2 (R2)**

Based on Table 5, R2 achieved the Proficiency level four of the core skills of critical thinking. The **Communication** skills showed when the writer was able to serve the information to the readers in the sequence where the writers' arguments and ideas were supported by the references. R2 wrote *"This study employs a descriptive qualitative method that collects, analyzes, and interprets a comprehensive narrative data....."* then followed by the supporting sentences which contain the reference. Then, in the ability of **Analysis** Skill, the respondent used logical reasoning to decide an appropriate method for research design. The sample of analysis *"Hence, the method is applied in this study to find out the contributing factors in the field of SLA that account for the transfer of collocation use in EFL students' spoken productions"*.

Another skill was **Problem Solving** which had been done by the researcher as well. R2 anticipated the process of collecting data by finding another option. So, the target of the data collection can be collected completely. The ability of **Evaluation** was showed when the writer evaluated the criteria of the subject of the research. The drawback was the writer evaluated and analyzed the condition of the

research setting without explaining the benefits or correlations for the research study. In the performance of **synthesizing** skill, R2 was in the proficient category, which means his ability in providing the information to the readers was good enough. He was linking the crucial information to make the information easy to understand. *"During the time being of the pandemic, all classroom activities are done remotely through online platforms. Therefore, the observation method will also be conducted online by ....."*. Based on writings' sample above, R2 indicated that he was able to serve the information with a successive explanation.

### **Respondent 3 (R3)**

The performance skills for critical thinking of the third student was categorized on proficiency level. The performance of **Communication** was good. R3 explained the information systematically and succeeded in synthesizing the ideas from the research question to the research design. Among four students, the explanation about research design was done in detail by R3. She wrote, *"This study pays attention to the natural phenomenon that happens in the classroom so that descriptive qualitative is elected as a suitable research design"*. The performance of **Analysis** showed in the way she analyzes the benefits of choosing an English teacher who taught English to Mentally Retarded students. R3 gave sequence information by stating the case at the beginning and giving affirmation at the end. This is the sample of analysis performance *"Moreover, the subjects of this study involved one English teacher who taught English for Mentally Retarded students..... This is to make sure that the teacher has enough experience in teaching"*.

Next, the **Evaluation** skill took place when she wrote the ideas about how the naturalistic approach should play in research. Then, **Problem Solving** was done by R3 in deciding appropriate data and source of data to answer each research question. She considered what kinds of data should be taken to get it rich and efficient. R3 wrote *"This study needs selection to determine the appropriate data to answer two research questions. The first data is....., The second data for the second research question is....."*. Then, in **synthesis** skill, she did well in explaining items' function in each instrument where she combined the items' function of the instrument and supported that statement with the references, which made the information even more powerful. R3 also initiated to serve the table of research methods to conclude the steps needed in conducting research methods for easy understanding by the readers.

### **Respondent 4 (R4)**

The lowest category of performance-critical thinking was obtained by R4. The performance of **Problem Solving** and **Synthesize** could not be found in her writing. Then, the performance of Communication, Analyze, and Evaluation was at the emerging level. To give the information to the readers, R4 directly stated *"This research is the qualitative method"* without creating another creative way to serve the explanation for the readers better. Another performance on **Analyses** was shown when she decided to participate in the study where the short statement was presented like *"The English pre-service teachers are the subject of this research"*.

Another performance of **Evaluation** that she stated *"Those institutions are chosen because the lectures give the peers to provide the presenters feedback about their performance"*. Among four postgraduate students, R4 has limited information to be presented, starting from the research design, setting, subject, data, source of the data, etc. The coherence among the paragraph and the unity of the ideas cannot be found since R4 only wrote short statements/information in her writing.

### **Respondent 5 (R5)**

To explain the reason for using a particular approach in the study, R5 was good at serving the information to the readers. The performance of **communication** skill was at a proficient level. R5 wrote the main ideas of using qualitative research, followed by an explanation of why it was an effective approach for the study. This was the example of the writing *"Due to its emphasis, the qualitative research is appropriate to describe teachers' instruction which cover Higher Order Thinking Skill (HOTS) in...."* Then, the **Analysis** performance was on a developing level where it can be found when she analyzed the criteria of the research subject she took. She stated the criteria was as usual and some points also sound like personal opinions. This was the samples' writing which points out the personal opinion *"While this study prefers to the experienced teacher since the longer the teacher teach, the more professional they are"*.

Next, the performance of **Problem-solving** could not be found as a critical thinking skill in her writing. There was no indication or statement which pointed out to solve the problem. The performance of **Evaluation** skills appeared when R5 evaluated the time required for data collection to get the rich data. Short information to explain the information made the evaluation skill's performance develop. Then, the example of short evaluation was *"As the teaching and learning process is using online learning platforms, the researcher will participate in the classroom and observe the teaching process. It will occur four times in order to get completed data observation"*. **Synthesize** skill covered on the performance when R4 identified and explained three stages for qualitative data analysis using references. The ability was on a developing level because she could not correlate well between the main ideas of the reference and her opinion to give logical information.

## **DISCUSSION**

Confidence in critical thinking is the highest level of critical thinking belief ability. Stuppel et al. (2017) stated that confidence in critical thinking corresponded with the ability to override one's convictions while thinking about the strength of contention. In addition, Eardley et al. (2017) also suggests that postgraduate students should be confident in critical thinking because they were designed around three pillars namely knowledge, skills, and behaviors to direct them to be successful in their studies. Unfortunately, the EFL postgraduate students in this study did not show the ability of confidence in critical thinking. They were inclined toward the level of valuing in critical thinking, which means that the EFL postgraduate students still need guidance and more practice so their critical thinking ability can be formed and implemented appropriately. Putri and Sulistyaningrum (2021) stated that students must acquire higher-order thinking to help them adapt to the difficulties in

this global era such as global economic expansion, innovative progression, globalization, etc. Thus, the EFL postgraduate students must increase their capability to practice deep thinking in identifying, analyzing, evaluating, and problem-solving.

In addition to critical thinking, the EFL postgraduate students also need to improve their ability in academic writing. Vayyey (2010) stated that students should be good at writing since it contributes to improving their competence in communication. It means that the writers cannot not only communicate complex viewpoints more effectively and structurally, but they can also practice their persuasive ability to influence the readers about what they think. The writing activity can increase students' productivity since it needs other supporting abilities like reading, thinking, expanding the knowledge, and comparing one information with another to find accurate and appropriate information. However, it would be difficult to achieve if the students did not put in the effort to hone their skills. In fact, Wahyuni and Inayati (2020) revealed that most of the students in their study had difficulty generating the ideas on topic development, theoretical framework identification, trusted source evaluation, research ideas, and relevant theory connection, as well as problem and theory assessment.

Furthermore, Kotamjani et al. (2018) found that international postgraduate students who graduated from non-English medium instruction universities should be supported in terms of English for Academic Purposes (EAP), critical thinking skills, and language-related skills to become self-directed in learning to write. Regarding this research finding, the EFL postgraduate students also need the guidance and motivation to synthesize, identify, and evaluate the information needed to write well. Aydin and Baysan (2018) claimed that the most challenging sections in writing RP were the section of "the introduction" and "literature review". Additionally, Ratnadewi and Yuniarti (2019) argued that the ability of students' teacher critical thinking reached a high level in communication, analysis, and synthesis skill. However, they were at a low level of reflection skills because they were not accustomed to observing their analysis. Devira and Westin (2021) discovered the ability of students' critical review in academic writing were in an unequal distribution of positive and negative evaluation, indicating that the students were lack of confidence in criticizing the work of established scholars. However, this current research also showed that EFL postgraduate students had difficulty in writing a research methodology. The common obstacles are in analyzing, evaluating, and synthesizing. Some of the EFL postgraduate students were good in problem-solving. They were able to read the schema of what they needed in collecting data so that all the data or information they targeted would be achieved well. The EFL postgraduate students were not only good at problem-solving but also in communicating to the readers in terms of providing relevant information. However, they are weak in several aspects, such as analyzing, evaluating, and synthesizing. They still need guidance and more practice to improve their ability.

## **CONCLUSION**

This research focused on the level of EFL postgraduate students' critical thinking beliefs and the quality of their writing, particularly in research methodology. The findings of this study showed that the EFL postgraduate students'

critical thinking beliefs were on the level of valuing in critical thinking and less on confidence in critical thinking. The level of valuing in critical thinking meant the EFL postgraduate students admitted that critical thinking is an essential ability they should master, yet, they cannot implement it consistently either for their studies or social problem in their daily life. The result of the content analysis of writing research methodology varies widely. Some students were proficient in communication and problem-solving, while some others were not. Synthesis abilities became the low achievement of the students' skills in writing.

This study has a limited scope in terms of participants because it involved only postgraduate students in the same university and study program, namely the postgraduate students of English Language Education Department. Other than that, the critical thinking belief can be combined with other basic language skills such as reading, speaking, or listening to identify to what extent the performance of critical thinking belief can affect the language skills. Since the study focuses on the postgraduate students' critical thinking beliefs, it is possible for the future research to add interview as a data collection technique to get additional data about perceptions or feelings in applying critical thinking, including difficulties, confusion, or convenience. In addition, another field, such as the final project in students' analysis or reflection, can also be used to obtain data related to the performance of the critical thinking skills.

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