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# INDONESIAN GRADUATE STUDENTS' ATTRIBUTIONAL BELIEFS AND METACOGNITIVE STRATEGIES IN THE ACADEMIC READING COMPREHENSION

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## Abstract
The field of students' beliefs in reading comprehension has become an increasingly significant research issue in the educational context. However, there have been very few studies examining attributional beliefs and metacognitive strategies adopted by EFL graduate students to deal with comprehension skills and reading difficulties. Applying the attribution framework, this study aimed to fill in the gap by investigating students' attributional beliefs, metacognitive reading strategies, and the correlation between attribution and metacognitive reading strategies. The researchers employed mixed-method research with questionnaires and interviews as the instruments to collect data. The results showed that the majority of students attributed their successes or failures to internal factors (efforts and strategies). Many students claimed that they often experienced reading difficulties during online learning. Lastly, the Pearson correlation showed that there was a strong correlation (r = 0.746) between attributional beliefs and metacognitive reading strategies. This study offers several implications for language learning, in particular, the academic reading comprehension. First, students need to have a higher awareness of attributional beliefs in academic reading. Second, language teachers should support students to develop internal attribution and metacognitive strategies in academic reading.

Keywords: Attributional beliefs, EFL graduate students, metacognitive strategies, reading difficulties

## Introduction
Successful graduate students require English language proficiency. Despite this requirement, many students have limited English proficiency which may cause comprehension problems in the academic reading process (Wang et al., 2014). Second language academic literacy in distinct discourse values and culture may be a challenging and complex process for graduate students (Singh, 2014). Rivera-mueller (2020) confirms that many teachers encounter students' reluctance, avoidance, and disengagement from the academic reading process. Many students assume that building reading comprehension is too demanding and it may press down upon their

self-beliefs and existing knowledge. However, reading various literature allow students to broaden their knowledge and improve language skills (Triwidayati, 2019). Elgendy et al. (2021) find that students' academic reading difficulties may be caused by their psychological and internal factors such as reading anxiety, procrastinating, low confidence, and binge reading. When students believe that reading can somehow be stressful for them, they often perceive reading as a challenging course and process that must be endured, rather than engaged (Rivera-mueller, 2020). In addition, Bekkaloglu (2020), reveals that less use of metacognitive strategies may lead students to experiencing reading difficulties such as poor comprehension and lack of world knowledge. Therefore, to achieve academic reading success, graduate students need to be able to understand the meanings, provide solutions to several problems, and become metacognitively active (Florida & Mbato, 2020). Furthermore, Mbato (2013) highlights that the use of metacognitive reading strategies can greatly help students to monitor their behavior and regulate their reading activities. Metacognitive reading strategies promote students to understand ways to plan the goals, monitor their reading process, and evaluate how well their strategies achieve reading outcomes (Chamot and O'Malley, 1994, p. 60).

Being self-regulated readers are quite demanding, students have to focus and understand how to control their feelings and attribution beliefs with metacognitive strategies to achieve language learning demands (Phelps, 2002). Metacognitive students who have good attributional beliefs tend to understand the significance of efforts and perseverance in integrating metacognitive strategies to enhance reading comprehension skills and deal with challenges (cf. Mbato, 2013). Mbato (2013) perceives that attribution is students' beliefs about their success or failure in the specific learning context, in particular, English language learning areas. That is the reason why the integration of metacognitive strategies may prompt students to evaluate and reflect on the tendency of their internal and external attribution for reading successes and failures. According to the attribution theory, Weiner (2010) discovers that students' attributional beliefs are influenced by their thinking process which gives rise to their feelings and actions. In academic reading comprehension and achievement, attribution beliefs mean that students' casual thinking can be the major factor determining their responses, emotions, and learning behaviors. Weiner (1985) also proposed four attribution dimensions comprising internal, external, controllable, and uncontrollable. Those four dimensions also describe four main causes of students' achievement which are students' ability, effort, task difficulty, and luck. Students attributing their success and failure to controllable and uncontrollable dimensions, such as reading difficulties, failures, and insufficient comprehension abilities can be considered as students who experience learn hopelessness and reading failures. In addition to their difficulties and failures in academic reading, students tend to regularly disengage from the academic reading course and they will be unlikely to apply their effort and persistence to gain reading goals and better performances (Luo et al., 2014).

In the academic reading process, excellent reading comprehension and performance are obligatory for Indonesian graduate students to pursue overseas training and future education. However, Pammu et al. (2013), reveal that many Indonesian EFL students confront reading comprehension problems in dealing with a variety of lengthy texts which are more complex and demanding for second language readers since academic reading comprehension involves individuals' mental and

cultural processes. A particular Indonesian researcher indicated that the majority of Indonesian graduate learners experienced low abilities in comprehending reading texts (Kweldju, 2001). Kweldju (2001), claimed that most of them are not able to read specific text with full comprehension. This case is in line with that of Sandekian et al. (2015), who find that poor comprehension abilities and insufficient level of English proficiency contributed notably to students' academic reading problems because it is a barrier that hinders students from academic reading success. Hirano (2015), explores that students' various difficulties in academic reading can be caused by several factors. The first one is students tend to attribute to the nature of reading activities at the college level. Another factor is graduate students' unexpected amount of reading that they had to accomplish at the master program. Thus, they experience reading-shocked and tend to compare the amount of reading tasks in graduate to an undergraduate program (Alghail & Mahfoodh, 2016). Lastly, insufficient English background and reading skills lead to students' difficulties and failure in academic reading comprehension.

Hirano (2015) examines that graduate students need to adopt effective strategies to cope with their academic reading challenges. Metacognitive strategies can be adopted by graduate students and extensively help them to make a decision, solve reading challenges, and facilitate self-regulation of EFL reading (Mbato, 2013).

It is notable to understand that a few studies have been conducted on students' attributional beliefs in Indonesia (Sutantoputri & Watt, 2012; Mali, 2017; and Florida & Mbato, 2020). The first study was conducted by Sutantoputri and Watt (2012). They investigated the possible effect of different gender, ethnicity, and religion on Indonesian graduate students' attributions along with other aspects comprising efficacy, motivation, intelligence beliefs, and academic performance. The result of this study indicated that in the Indonesian context, there were no major effects of students' different gender, ethnicity, or religion on attribution, efficacy, beliefs, and academic performance. The second study was conducted by Mali (2017) in that of learners' progress of their second language learning and reasons they attribute to their success or failure of learning a second language. This particular study aimed to promote effort attributions by using three practical ways based on the theory from Dornyei (2001) on the motivational teaching framework to the EFL students' learning process. The result showed that students' motivation, academic achievements, and collaboration between parents and teachers could promote the effort attributions to students. The last study was carried out by Florida and Mbato (2020). They investigated how Indonesian EFL students attributed their success or failure in reading comprehension and analyzed the correlation between students' attributional beliefs and their monitoring strategies in reading. The result indicated a moderate correlation between students' attributional beliefs and monitoring strategies. It also indicated that undergraduate EFL students need to regulate themselves more and direct their reading process based on attributional beliefs.

Those studies above were conducted on similar topics in the context of students' attribution beliefs in academic learning to encourage students' specific skills in language learning (Sutantoputri & Watt, 2012; Mali, 2017; and Florida & Mbato, 2020). These studies, however, shared different results of students' attributional beliefs in the academic learning process depending on the various aspects supporting the attribution. One study explicated that students' different gender, ethnicity, or religion did not affect their attributional beliefs, efficacy, and academic learning

performance (Sutantoputri & Watt, 2012). In contrast, two other studies indicated that students' attributional beliefs were supported by other aspects comprising students' motivation, achievements, parents, teachers, and their strategies (Mali, 2017; and Florida & Mbato, 2020). Based on these findings, it can be inferred that Indonesian EFL students attributed their success or failure in learning to internal and external factors. However, none of the studies investigate students' challenges in academic reading and provide strategies to deal with their difficulties.

This current research aimed to examine Indonesian graduate students' attributional beliefs in academic reading comprehension and whether they attributed their academic reading comprehension success or failure to internal or external factors. The previous studies were in agreement regarding the influence of EFL students' attributional beliefs in their learning process. However, there was a dearth of research about graduate students' attributional beliefs in academic reading comprehension especially during the online learning. Those studies have not examined clearly the impact of reading difficulties on students' failure and their strategies to deal with them. Therefore, this current study intended to fill the gap in the literature by examining the graduate students' attributional beliefs in academic reading comprehension, students' metacognitive strategies to overcome students' reading difficulties, and the correlation between attributional beliefs with metacognitive reading strategies during the online learning. Three research questions were formulated in this research:

1. How do Indonesian graduate perceive their attributional beliefs in academic reading comprehension during online class?
2. What are Indonesian graduate students' strategies to deal with academic reading difficulties?
3. Is there any relationship between attributional beliefs and metacognitive reading strategies of Indonesian graduate students?

Based on the third research question, the researchers formulated the two hypotheses:

H0: There is no correlation between attributional beliefs and metacognitive reading strategies of Indonesian graduate students.

HA: There is a correlation between attributional beliefs and metacognitive reading strategies of Indonesian graduate students.

### *Attributional Beliefs*

It is no doubt that attributional beliefs play a significant role in students' learning motivation, performance, and academic coping (Luo et al., 2014). In the learning process, it is understood that every student presents different types of attributional beliefs. Students may attribute their success or failure to several dimensions, locus (internal and external), stability, and controllability that is dependents on students' learning experiences including past success or failure, social norms, and existing beliefs (Weiner, 2010). According to Ellis (2008), attribution is explained as a student's progress of their second language learning and the reasons why they attribute their success or failure in the process of acquiring a particular target language. In the educational aspect, attribution can be defined as a determinant of students' learning and performance affecting their motivation and academic achievement (Weiner, 1985). Furthermore, attribution can be described as people's explanation for the cause of a particular event, which in turn affects their behavior

(Martinko, 1995, p.8). With regards to Winer's attribution theories, Martinko (1995) also mentions four dimensions of attribution: locus of causality, stability, globality, and controllability. The locus of causality focuses more on how people perceive a particular cause as being internal (abilities and efforts) or external (insufficient preparation and task difficulty). The stability dimension explores more on whether or not a particular cause can be considered as something fixed or stable. Globality refers to the way how people perceive a cause is in a particular situation of their life. Lastly, controllably refers to the way how people believe that they can control a particular cause.

Mori et al. (2010) find that the majority of students attribute their success to the influences of teachers and the conducive classroom atmosphere primarily. Meanwhile, their lack of abilities and insufficient knowledge were the causes of their failure. Yilmaz (2012) found that most of the students attributed their success to their suitable learning strategies, positive mood, reading interest, teachers' feedback, and a conducive classroom environment. While, they attributed their failure in the reading process to inadequate reading abilities, lack of time, negative mood, and an unconducive environment. Those findings of two different studies (Mori et al., 2010; Yilmaz, 2012) are in harmony with that of Weiner's attribution theory, which describes attribution through four significant explanations for success or failures in achieving students' learning outcomes: abilities, efforts, task difficulty, and luck.

***Reading Difficulties***

Reading is a particular process involving students to look for a series of written symbols to find the real meaning of them. Pammu et al., (2013) describe that reading is the most effective and efficient way to encourage students' comprehension, improve general language skills, change students' bad habit in learning, and enhance their level of confidence as second language readers. According to Zarei (2018), academic reading is a difficult process requiring varied strategies to cope with several issues. Specific strategies might be implemented to helps students deal with academic reading problems. Zarei (2018) found that those suitable reading strategies might be utilized to help students in comprehending specific texts and overcoming reading difficulties and faced by students in second language learning and acquisition. Students seem to struggle the most to acquire English as a second language and to overcome reading setbacks. However, some students might not realize and understand that they need to better strategies to cope with all reading issues (Alghail & Mahfoodh, 2016).

Those reading problems might affect their reading development and comprehension. Lack of metacognition leads students to not care on their reading progress and suffer reading skills and strategies. Then, students experiencing less motivation and engagement in reading process pull themselves out from the academic reading process by not paying attention to the learning process, expressing their negative emotions, avoiding reading activities, and becoming disengaged readers. Meniado (2016) finds that in Saudi Arabia, the level of students' motivation in academic reading is low. This case leads students to have low level of reading comprehension, surface engagement in reading, less vocabulary and word knowledge. Many EFL students in Indonesia also experience academic reading challenges such as bad habits in reading and difficulties in understanding the particular reading text (Pammu et al., 2013). They find that a great number of

Indonesian students suffer insufficient vocabulary knowledge and strategies in reading comprehension.

### *Metacognitive Reading Strategies*

According to Flavel (1979), metacognition involves individuals' awareness and cognitive process to attain self-regulation, mental activities, and thinking strategies. Fundamentally, metacognition refers to thinking about thinking and it had been categorized into two crucial aspects namely monitoring skills and cognitive knowledge for the learning process (Flavel, 1979) Furthermore, Chamot et al. (1999) argued that metacognition is an essential knowledge that need to be developed by individuals to have abilities in planning, monitoring, and evaluating. Flavel (1979) investigated that individuals who carry out the metacognitive knowledge development in their learning tend to develop higher self-beliefs and strategies to cope with learning issues. Students having great deal of metacognitive knowledge can determine the most effective strategies to achieve the learning goals. However, promoting high levels of metacognitive strategies for students is quite challenging. Teng (2020) found that it is difficult for students to implement metacognitive strategies in the reading process because they need to interpret, evaluate what they have read previously, and conclude the crucial information by using higher-order thinking skills.

Chamot et al. (1999) find that students will be success in the reading after implementing metacognitive strategies. Metacognitively active students tend to develop epistemic beliefs and perceive readings are for particular purposes. In addition, developing strategy knowledge and the ability to reflect on what has been learned are the important component for constructing a strong metacognitive knowledge (Flavell, 1979; & Chamot, et al., 1999). The majority of graduate students experience difficulties in attaining reading comprehension due to lack of metacognitive knowledge (Pammu et al., 2013; Zarei, 2018). Chamot and O'Malley (1994) argue that graduate students who equipped themselves with language learning strategies can improve their progress in comprehending, internalizing the target language, and developing communicative ability autonomously. Teng (2020), reveals that students who implement metacognitive strategies during reading may be able to regulate themselves, modify reading approaches, and become more proficient in reading. Last, Teng (2020) also agrees that metacognitive reading strategies may be applied to help students in building specific knowledge by planning the activity, monitoring the strategies, and evaluate whether or not the strategies suitable.

## Method

To obtain the particular data, the researchers implemented a sequential parallel mixed-method study to obtain data regarding this research. According to Ary et al. (2009), a mixed-method study aimed to help researchers to combine both qualitative and quantitative approaches in a creative way utilizing the strengths of each within a single study. By mixing the methods in a specific way, Ary et al. (2009) argued that it could minimize the weaknesses of one approach and reduce the overlapping with the weaknesses of another, so the study can be strengthened. In addition, Creswell (2014) found that a sequential parallel mixed-method study could be used by researchers to integrate both qualitative and quantitative approaches to provide understandable research data. This current study was conducted in the area of

Yogyakarta. The participants in this study were 19 graduate students of the English Education Master Program at Sanata Dharma University, Yogyakarta. The research participants came from batch 2021 who had experienced the academic reading process through online learning during this Covid-19 pandemic. They were selected as the source of data to comprehend their attributional beliefs in academic reading comprehension during their online learning.

In collecting the data, two types of questionnaires comprising closed-ended and open-ended and also interviews were conducted. The close-ended questionnaire consisting of 13 statements was adopted from the existing questionnaires on attributional beliefs and metacognitive strategies by Florida and Mbato (2020) and Mbato (2013). Those questionnaires were classified into two different sections namely attributional beliefs and metacognitive reading strategies questionnaire. The attributional beliefs questionnaire asked the participants to imagine five scenarios on their success or failure in academic reading comprehension due to their ability, luck, other people or circumstances, or due to their efforts or strategies. Meanwhile, the metacognitive reading strategies questionnaire asked students how they adopt metacognitive strategies in reading to overcome challenges. This questionnaire was constructed by using a Likert scale in the form of numbers 1 up to 5. The degree of agreement was "strongly disagree (1)", "disagree (2)", "neutral (3)", "agree (4)", and "strongly agree (5)". Because of the pandemic constraint, the researchers shared the questionnaire through the Google form platform where students filled out a consent form to participate. The researchers tabulated all of the obtained data in the form of descriptive statistics and presented the total responses of participants in the form of percentages.

The researchers also conducted a semi-structured interview section to support the questionnaire data. The researchers selected four out of nineteen participants in this research purposively. These students were asked about their academic reading performances, reading difficulties, and metacognitive strategies to cope with challenges. To keep and protect the participants' identities, the participants were named STU A, B, C, and D. The interviews were recorded and transcribed into structured paragraphs. The researchers conducted descriptive and inferential statistics to analyze students' responses. Since this particular research employed a mixed-method study, it also provided side-by-side comparison by connecting and building the data set (Creswell, 2014). To analyze the quantitative data, researchers employed the Pearson product-moment correlation coefficient (r) with the aid of the SPPS 26 to explore the correlation between students' attributional beliefs and metacognitive reading strategies. Thus, the qualitative data focused on interviews to obtain students' experiences and reflections during the academic reading process.

## Findings and Discussion

This section is executed, to sum up all of the findings gained through the questionnaires and interview section regarding graduate students' attributional beliefs in their academic reading comprehension, especially during online learning. There are three major findings in this current study concerning attributional beliefs and metacognitive strategies. The first finding deals with students' perceptions of their attributional beliefs in academic reading comprehension. The second finding focused on the significance of metacognitive reading strategies used by graduate students to deal with reading challenges and reading comprehension. The third

finding focused on the correlation between students' attributional beliefs and metacognitive strategies in their academic reading. Each of the findings will be presented in the table in the form of percentages and supported by some excerpts from students' interview results, the relevant previous studies, and also the relevant theories to provide a clear and better understanding for a comprehensive discussion.

***How do Indonesian graduate perceive their attributional beliefs in academic reading comprehension during online class?***

According to the previous studies (Weiner, 1985; Martinko, 1995) students can attribute their success or failure of learning process to four dimensions of attribution comprising locus of causality, stability, globality, and controllability. This current study examined that Indonesian EFL graduate students attributed their success or failure in academic reading comprehension to two chief factors: internal (lack of vocabulary, insufficient skills) and external (language difficulties and reading environment).

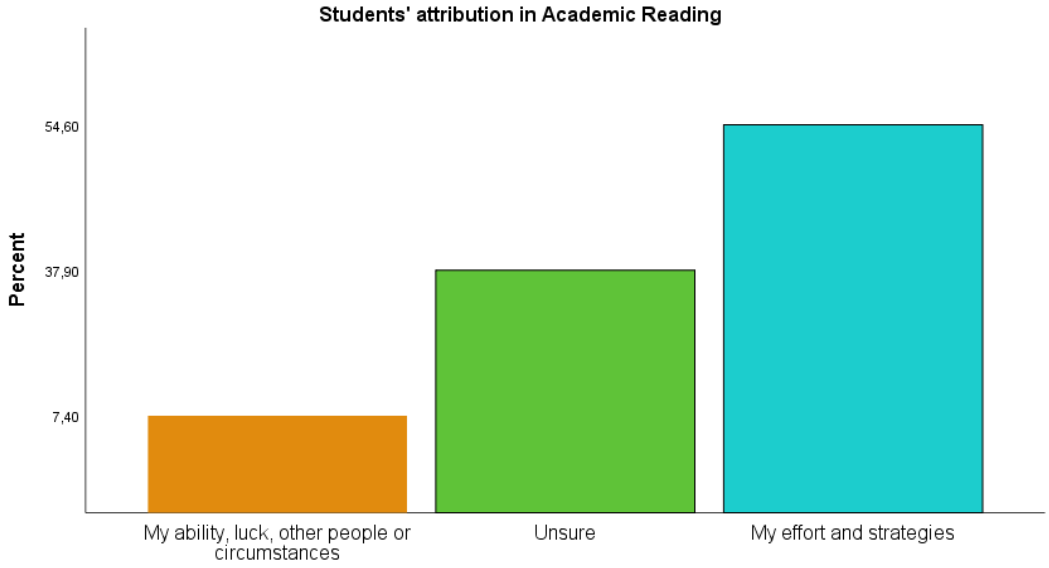



Figure 1. Students' attribution in reading

As showed in figure 1, from all participants, it was indicated that 7.4% of the students attributed their success or failure to the external factors (my ability, luck, other people, or circumstances), 37.9% of the students were unsure with their attributional beliefs, and the rest (54.6%) attributed their success or failure of academic reading comprehension to the internal factors (my effort and strategies). this particular finding was also supported by the results of students' attributional beliefs questionnaire in academic reading comprising 6 statements. The questionnaire result will be seen as follows.

Table 1. Students' perceptions on their attributional beliefs on academic reading comprehension

| No. | STATEMENTS | my ability, luck, other people or circumstances | Unsure | my effort and strategies | mean | SD |
|---|---|---|---|---|---|---|
| Att 1 | Low mark for incorrect reading comprehension | 2<br>10.5% | 5<br>26.3% | 12<br>63.2% | 2.6 | 0.70 |
| Att 2 | Able to summarize a story | -<br> | 5<br>26.3% | 14<br>73.7% | 2,8 | 0.42 |
| Att 3 | Little progress in English | 1<br>5.3% | 9<br>47.4% | 9<br>47.4% | 2,4 | 0.61 |
| Att 4 | Able to express ideas and concepts to a group | 3<br>15.8% | 7<br>36.8% | 9<br>47.4% | 2,3 | 0.76 |
| Att 5 | Unable to express ideas and concepts to a group | 2<br>10.5% | 12<br>63.2% | 5<br>26.3% | 2,2 | 0.61 |
| Att 6 | English Lesson goes well | -<br> | 8<br>42.1% | 11<br>57.9% | 2,5 | 0.51 |

* Att= Attribution, SD=Standard Deviation.

From those statements in table 1, it can be seen that over 50 % of students expressed that they attributed the mark for reading comprehension (Att 1) and the ability to summarize stories from readings (Att 2) to the internal factors (my effort and strategies). This finding is in compliance with that of Luo et al. (2013), indicating that the majority of students who understand their learning goals tend to attribute their success or failure to the internal factors, including effort and learning strategies. However, over 20% of the students (Att 1 and Att 2) were unsure whether those items were caused by internal or external factors. Over 40% of the students attributed their progress in English reading (Att 3) and their abilities to express ideas and concepts (Att 4) to internal factors. Meanwhile, in Att 3 and Att 4, more than 30% were unsure about their progress in English reading. These particular findings are in harmony with that of Mbato (2013) who found that students who attributed their previous learning achievement to effort commonly resulted in better progress and greater abilities development. It was less than 30% of students attributed their inability to express ideas and concepts to internal factors (Att 5). The majority of students (61.1%) were unsure and the rest of them (11.1%) attributed their inability to external factors. This particular finding is corroborated with the studies from Weiner (1985) and Luo et al. (2013), in that students without enough preparation tend to attribute academic success or failure to study skills, task difficulty, and luck, as well as the support from teachers and parents. Lastly, more than 50% of the students (Att 6) also attributed their reading situation to internal factors. From these findings, it can be indicated that there was a wide gap between students who attributed their abilities to summarize a story (Att 2) and the situation while reading (Att 6) to internal or external factors. More than 50% of the students believed that those were caused by internal factors and no one attributed them to external factors. In that case, the roles of parents and teachers in modelling the effort attribution might be affecting students in the decision-making (Yilmaz, 2012). Most of the students

selected to attribute their failure or success to effort and strategies because teachers and parents encourage them that make sufficient effort, employ appropriate strategies, and struggle hard in life are the keys to success (Dornyei, 2001; Mali, 2017).

The result of the questionnaire was in consistence with the student's excerpt in the interview. Four students were asked about their opinion and perception of self-regulated readers.

> I believe that I am a self-regulated reader because I have high motivation to relate the reading concepts with my experiences, evaluate my reading progress, and make a conclusion of the particular reading. Those strategies will help me to achieve my goals. (STU B)

Student B expressed that reading was one of the interesting activities so that she was motivated to read and apply strategies to achieve the reading goals. Meanwhile, different opinions and perceptions were mentioned by student C concerning self-regulated readers.

> I am not a self-regulated reader because I consider that reading is a burden for me so I have less motivation in reading and insufficient skills. It is difficult for me to apply suitable strategies because my surroundings easily distract me to read. (STU C)

From student C, it can be inferred that lack of motivation, inadequate comprehension skills, insufficient strategies, and an unconducive environment became the chief factors why academic reading was challenging for students. Those students' interview results were in compliance with that of Florida and Mbato (2020), who indicated that motivation is the main factor affecting students to read. In addition, students with strong motivation are able to read and learn faster rather than those without strong motivation. The students' answers in the interview section prove that more than half of graduate students believed that internal factors navigate their motivation to improve comprehension skills and achieve reading goals.

***What are graduate students' strategies to deal with academic reading difficulties?***

Based on the findings of the second questionnaires, the researchers tried to figure out how students implemented metacognitive strategies to plan, monitor, and evaluate their reading process. Seven statements from Table 2 below focused on the students' perceptions of their metacognitive reading strategies used to overcome reading difficulties.

Table 2. Students' responses on their metacognitive strategies in academic reading

| | STATEMENTS (St) | Mean | SD* | 1<br>SD<br>%<br>F1 | 2<br>D<br>%<br>F2 | 3<br>N<br>%<br>F3 | 4<br>A<br>%<br>F4 | 5<br>SA<br>%<br>F5 |
|---|---|---|---|---|---|---|---|---|
| 1 | I decide in advance what my reading purpose is, and I read with that goal in mind. | 3,94 | 0,72 | - | 5.3 | 10.5 | 68.4 | 15.8 |
| 2 | Before I read, I think of what I already know about the topic. | 3,78 | 0,87 | - | 10.5 | 21.1 | 52.6 | 15.8 |
| 3 | While reading, I periodically check if the material is making sense to me. | 4,11 | 0,83 | - | 5.3 | 15.8 | 47.4 | 31.6 |
| 4 | I encourage myself as I read by saying positive statements such as "You can do it." | 4,27 | 0,89 | - | 5.3 | 10.5 | 36.8 | 47.4 |
| 5 | When I encounter a difficult or unfamiliar word I try to work out its meaning from the context surrounding it (such as other words or pictures) | 4,27 | 0,82 | - | 5.3 | 10.5 | 47.4 | 36.8 |
| 6 | After reading, I check to see if my prediction is correct. | 4,11 | 0,75 | - | - | 21.1 | 47.4 | 31.6 |
| 7 | After reading, I decide whether the strategies I used helped me understand, and think of other strategies that could have helped. | 3,67 | 0,97 | - | 15.8 | 15.8 | 52.6 | 15.8 |

*SD=Standard Deviation; SD=Strongly Disagree; D=Disagree; N=Neutral; A=Agree; SA=Strongly Agree; F=Frequency

As shown in Table 2, the findings indicated that most of the students responded differently concerning the implementation of metacognitive reading strategies when encountering difficulties. Based on figure 1 previously, 54.6% of the students believed that their academic reading success or failure was due to internal factors (efforts and strategies). Therefore, the researchers attempted to figure out how they planned, monitored, and evaluated their reading process based on their attributional beliefs. It could be seen that 84.2% of the students set specific goals before going to read (St 1). This finding is in compliance with that of Mbato (2013), indicating that setting the specific goals before reading might help students to self-regulated reading who adopt reading comprehension strategies autonomously. Most of the students expressed high agreement with the implementation of metacognitive strategies in pre, while, and post-reading (St 2, 3, 6, 7). 84.2% of the students agreed that they encouraged themselves to be able to read by saying positive statements (St 3) and found the meanings of difficult words from the other words, pictures, and dictionary (St 4). This finding is in line with Mbato (2013) who identified that self-regulated readers focus on their internal sources to navigate themselves to reading success by setting goals at the beginning of the reading, implementing appropriate reading

strategies, and having strong self-motivation to invest internal resources to achieve the goals. Other statements showed that over 60% of the students expressed that after reading they commonly adopted metacognitive strategies such as prediction (St 6) and other strategies that best suit their reading styles (St 7). No one disagreed with statement 6 about the prediction strategy after reading. This finding is in consistence with that of Bekkaloglu (2020), who indicated that being metacognitively active, students are required to implement three sub-skills comprising planning, monitoring, and evaluation. Making predictions before and after reading, determining appropriate reading comprehension strategies, as well as arranging solution resources affecting reading success is the example of planning and monitoring strategies. Based on the results, the high scores of SD (standard deviation) in those seven statements indicated that students shared different strategy uses. However, many students were unsure to apply metacognitive strategies when they encountered difficulties in reading. It was supported by the study from Bagci and Unveren (2020), in that some students who have little experience in reading and use ineffective reading strategies, as well as poor reading habits are considered as having difficulty in developing reading comprehension skills.

Moreover, the descriptive analysis of the questionnaire data was corroborated with one excerpt of the interviews, in which the student delivered her challenges in academic reading.

> I often experience difficulties in reading because of unfamiliar words, academic language difficulties, and inadequate vocabulary. It is hard for me to achieve reading comprehension during an online class. (STU D)

Based on the interview, student D shared her reading difficulties during the online learning. She felt difficult to discuss with many friends due to the limited connection and time. She also provided a strategy to deal with her difficulties.

> I tend to open the dictionary, highlight the hard parts, make notes for new vocabulary, and summarize significant content from a particular reading. I also love to reread the readings if I cannot draw the clear conclusion. (STU D)

From the students' excerpts of the interview, it can be inferred that many students experienced reading difficulties. However, some of them adopted metacognitive comprising planning monitoring, and evaluation to solve their problems (Chamot et al., 1999). They also explained that they tended to evaluate and reflect on what they have read and what the information was about.

***Is there any relationship between attributional beliefs and metacognitive reading strategies of Indonesian graduate students?***

In this section, the Pearson correlation coefficient (r) was employed to examine the relationship between students' attributional beliefs and metacognitive strategies in academic reading comprehension with the assistance of SPSS to test the validity of these particular questionnaires. The result was presented in the following table:

Table 3. Correlation between Attribution and Metacognitive Reading Strategies

| | | Attribution | Metacognitive Reading Strategies |
|---|---|---|---|
| Attribution | Pearson Correlation | 1 | .746 |
| | Sig. (2-tailed) | | .001 |
| | N | 19 | 19 |
| Metacognitive Reading Strategies | Pearson Correlation | .746 | 1 |
| | Sig. (2-tailed) | .001 | |
| | N | 19 | 19 |

The result of the Pearson correlation coefficient (r) indicated that there is a strong correlation between students' attributional beliefs and metacognitive reading strategies of EFL graduate students, which was significant at the 0.01 level (r = .746, n = 19). This finding highlighted that the correlation between students' attributional beliefs and metacognitive reading strategies was strong since the majority of the students (54.6%) attributed their reading success or failure to internal factors (effort and strategies). Even though many students experienced academic reading difficulties, they attempted to find the strategies that best suited their reading process. Many students believed that their academic reading success or failure mostly was affected by insufficient comprehension skills, lack of strategies, and inadequate vocabulary. Thus, the results conclude that the alternative hypothesis (HA) was accepted and the null hypothesis (H0) was rejected. The correlation was significant for the total participants ($p= 0.01 < \alpha = 0,5$). Thus, this finding is also supported by the student's excerpt in the interview section.

> I am a student who has no sufficient skills in comprehending any readings. It is why I try to spend lots of effort and perseverance in adopting appropriate reading strategies such as questioning, setting goals, highlighting, discussing, and drawing a conclusion.

**Conclusion**

It is notable to restate that academic reading comprehension skills are the incredibly important skills that should be mastered by EFL graduate students. This current study examined the influence of Indonesian EFL graduate students' attributional beliefs in academic reading comprehension, especially in the online learning. The findings of this study indicated that the majority of students attributed their success or failure in academic reading comprehension to internal factors such as motivation, efforts, and reading strategies. Many students expressed that they also experienced so many reading difficulties during the online learning such as limited time, limited interactions, language difficulties, and inability to discuss their academic problems with other people. However, they also confirmed that the existence of metacognitive strategies (planning, monitoring, and evaluating) can greatly help them to deal with reading difficulties. The Pearson correlation (r) also showed that there was a strong correlation between students' attribution and metacognitive reading strategies and significant at the 0.01 level (r = .746, n = 19). The result indicated that most of the students attributed their success or failure to

internal factors (efforts and reading strategies). This finding was supported by students' excerpts from interviews that they mostly implemented strategies in each stage of reading to help them enhance reading comprehension abilities and solve problems.

To conclude, the researchers offered several implications. First, students need to have a higher awareness of attributional beliefs in academic reading. Second, language teachers should encourage students to learn the concepts of attribution and promote them to develop internal attribution in the academic reading process. This kind of activity may provide students some opportunities to become self-regulated readers and therefore experience more reading success. Lastly, language teachers need to encourage students to implement metacognitive strategies in reading including how to plan the goals, monitor reading progress, and evaluate their strategies in terms of whether or not they are effective. Since academic reading requires students' English language proficiency, teachers need to improve their teaching strategies that can help students to deal with their reading problems. Thus, students can be motivated to read in spite of the challenges particularly in the foreign language learning context.

Despite the positive findings, this current study, has a limitation in that it involved a small sample size (n=19) from one private university. Future researchers who are interested in investigating a similar topic can include a larger group of participants of several universities in Indonesia. Thus, they could explore more extensively the relationship between students' attribution, internal or external factors, self-regulation, learning difficulties, and also metacognitive strategies. They may also conduct similar research with writing, listening, or speaking as their focus.

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