

STUDENTS' PERCEPTIONS ABOUT PARAPHRASING AND THEIR COGNITIVE PROCESSES IN PARAPHRASING

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Abstract: This qualitative study investigates students' perceptions about paraphrasing and their cognitive and meta-cognitive processes in paraphrasing. Four Indonesian advanced EFL students enrolled in Applied Linguistics course of a graduate program in English Language Teaching of a state university in Malang were voluntarily willing to participate in the study. These four subjects did a paraphrasing task requiring them to do concurrent verbal reports while paraphrasing three sentences and one paragraph. Following this, the subjects responded to a questionnaire and then participated in a retrospective interview. The data from the questionnaires were described qualitatively, whereas the verbal reports were transcribed and analyzed for identification of cognitive and meta-cognitive strategies based on the framework of learning strategies by Chamot and Kupper (1989). The subjects' perceptions about paraphrasing appeared to be in line with the widely accepted definition and criteria of proper paraphrases. Additionally, the results of verbal reports show that the subjects used 21 cognitive and seven meta-cognitive strategies, reflecting the fact that most of the cognitive strategies used in the sentence level were applied in the paragraph level with some additions of strategies specific to paragraph development and synthesis such as finding the main idea and summarizing.

Keywords: paraphrasing, perceptions, cognitive strategies, meta-cognitive strategies

The skills of text borrowing and integrating others' written ideas into one's own academic writing are important skills in the academic world, especially for those taking secondary or higher education. Direct quoting, summarizing, and paraphrasing are the text borrowing skills commonly applied in academic writing. Compared to paraphrasing, quoting directly from the original source is much more practical, simpler, and less complicated. There is certainly nothing wrong with incorporating quotations; however, using too many quotations as noted by Davis and Beaumont (2007) does not reflect fluent writing. Academic writing, therefore, encourages the utilization of paraphrasing and summarizing or synthesizing skills instead.

Paraphrasing is defined as restating a sentence in such a way that both sentences would generally be recognized as lexically and syntactically different while remaining semantically equal (Amoroso, 2007; Davis & Beaumont, 2007; McCarthy, Guess, & McNamara, 2009). This definition implies at least two echoes: reading comprehension and writing skill. Therefore, as indicated by McCarthy, Guess, and McNamara (2009), paraphrasing has also been used to aid comprehension, stimulate prior knowledge, and assist writing skill development.

Literature in cognitive psychology shows that paraphrasing is cognitively demanding. As the material to be paraphrased becomes more complex, students tend to employ simpler processing, causing the writing to look like a patchwork (Marsh, Landau, & Hick in Walker, 2008). Walker further notes that simply thinking about paraphrasing requires considerable cognitive energy, and once the physical process of writing begins, people have limited resources left to automatically engage in thoughtful, systematic processing to determine if they paraphrase properly. These challenging traits of paraphrasing lead to some difficulties. A study by Iwasaki (1999) in the Japanese context indicated four main areas of difficulties: different behaviors of parts of speech, subject restriction, contextual paraphrasing, and "blank" locating. In the Indonesian context, there is little evidence and information derived from comprehensive research devoted to investigating paraphrasing-related issues. Despite an extensive number of respondents participating, Kusumasondjaja's survey (2010) did not tap on students' paraphrasing ability. It seems that paraphrasing is not defined, or that it is vaguely defined, or simply perceived as modifying the original source without specifying the degree of the modification itself. Possibly it was assumed that the researcher and the respondents who were Indonesian graduate students had the same perceptions about paraphrasing. It

seems important, therefore, to carry out a study to understand more clearly how Indonesian students perceive their knowledge of paraphrasing, a cognitively demanding skill to acquire.

An investigation on the paraphrasing strategies has been conducted by McInnis (2009), who compared the strategies of paraphrasing, perception, quality, and appropriateness of the paraphrases produced by three English-Canadian undergraduate students (L1) and three EFL undergraduate students who were not native speakers of English (L2). This present study differs from the one conducted by McInnis in several respects. First, in terms of the subjects, this present study includes Indonesian graduate students who might have different characteristics from the undergraduate students involved by McInnis. The second is the instrument of paraphrasing task. In McInnis's study, the subjects were required to paraphrase four excerpts of the same level. In this study, the subjects were asked to do two tasks: paraphrasing English texts at the sentence level and at the paragraph level. In other words, this study tries to explore the challenges posed by paraphrasing in terms of the cognitive and meta-cognitive processes that may stem from the perceived understandings of paraphrasing.

METHOD

Employing a descriptive qualitative design, this study involved four subjects out of 16 students taking the Applied Linguistics course. These four subjects, assigned into an upper group (Subject 1 and Subject 2) and lower group (Subject 3 and Subject 4) based on the average of composite scores of their written essays submitted for midterm and final assignments, were voluntarily willing to participate in this study. In this class, the students were required to write a series of written assignments with certain numbers of words limited to 200 and 500 words.

The instruments included a questionnaire and a stimulated paraphrasing task. The questionnaire was projected to obtain information concerning four aspects: the students' perceptions about the definition of paraphrasing, paraphrasing strategies, usefulness of paraphrasing, and difficulties encountered when paraphrasing. The subjects' responses to the questionnaire were described qualitatively to explain the perceived understandings, strategies, usefulness, and challenges of paraphrasing.

The other instrument was a paraphrasing task which served as an activity to stimulate the verbal protocols which were simultaneously documented,

transcribed, coded, and categorized. The coding scheme of these verbal protocols was based on the reading strategies (Paris as discussed in Hudson, 2006), language learning strategies (Chamot & Kupper, 1989), and the paraphrasing strategies (McInnis, 2009). The subjects were allowed to use a language of their convenience such as their first language (*Bahasa Indonesia*) or English, or to codeswitch between them during the task execution. After doing the task, a retrospective interview was carried out by watching the recorded task to clarify the strategies used in the task.

The unit of analysis was determined based on each utterance that reflects a single function and purpose of the cognitive and meta-cognitive processes. Units of analysis directly referring to the paraphrasing process or Decision Making Episodes (DME) were then identified. DME is thus identified mainly in the comprehension process and writing the reformulation.

FINDINGS AND DISCUSSION

Findings

Perceptions about Paraphrasing

All the subjects participating in this study acknowledged that paraphrasing involved reformulation of sentences or paragraphs into authors' own words while at the same time emphasizing the importance of retaining the original idea. Subject 1 from the upper group, for instance, defined paraphrasing as "rewriting the same idea with different word and diction." Subject 4 from the lower group is even more specific in explaining the uses of paraphrasing, suggesting that it is not only in written form but also in spoken form. As she defined, "paraphrasing is expressing something that we have read or heard into our own words; mostly used in writing."

In terms of the strategies, the participants from the upper group stated that they used two steps: reading the original text and reformulating it using different words. Subject 1 further indicated the importance of the use of key words and acknowledged that technical terms needed to be retained, as reflected in the following statement, "But not all words can be replaced with the other, e.g. reading." The responses from the lower group varied. Subject 4 of this group did not mention the use of reading, saying that "I refer to five

main things: 1. synonyms, 2. antonyms, 3. general words, 4. phrases, 5. using quotation.” This is different from Subject 3 who went further to a more specific description, stating that she “read the original text, find difficult words, translate or find the synonym, read again, think about the structure, start to write, read again, edit, and finish.”

In terms of the goal of paraphrasing, the participants from the upper groups have different goals. Subject 1 stated that the goal is “to make it simple and easier to understand”. In contrast, Subject 2 aims at the practice of avoiding plagiarism, as stated in her statement, saying that paraphrasing is employed “to cite an idea previously stated/expressed by a writer without plagiarizing it”. The lower group also had a slightly different direction in terms of the paraphrasing goals indicating a function of paraphrasing as a way to make the ideas easier to understand for the readers. Dealing with the situation when paraphrasing is necessary, it appears that all subjects in both groups agreed that paraphrasing is necessary in academic writing. However, when asked about the extent of difficulty, all the subjects in both groups considered paraphrasing difficult.

Concerning the range of usefulness which was extended in five levels (a. very beneficial, b. beneficial, c. somewhat beneficial, d. not quite beneficial, and e. not beneficial), the subjects from the upper group showed that this skill is very beneficial. Interestingly, the subjects in the lower group showed mixed results in their responses. Subject 3 claimed paraphrasing “somewhat beneficial” under a reason that in academic writing not all references that need to be cited should be paraphrased, saying that “not all the original passages need to be paraphrased, only the ones which need to be restated”. She further mentioned that the use of paraphrasing really depends on such things as “the need and situation, the complexity, and the demand.” This seems to be in contrast with the perception of Subject 4 who considered paraphrasing very beneficial. She related it closely to the textual ownership and plagiarism practice which need to be avoided. She said, “Many people, especially FL learners, still ignore or do not understand the effect of plagiarism in educational fields. Thus paraphrasing is really needed to be taught and used by FL learners”.

When asked about difficulties in paraphrasing, all the subjects agreed that paraphrasing is difficult. The reasons varied in the range of the problems of maintaining the meaning, the sufficiency of paraphrasing skills, and avoiding plagiarism. For Subjects 1, 2, and 4, the most challenging part of paraphrasing English texts was maintaining the meaning of the original text using different

words. Subject 4 went further explaining the importance of knowing and understanding relevant techniques to prevent plagiarism. Subject 3 believed that paraphrasing requires specific “skill, competence, and knowledge.”

Paraphrasing Strategies

The paraphrasing strategies employed by the subjects were revealed from the analysis of think-aloud protocols recorded while the subjects were doing the paraphrasing task as well as from the post-task interview. The analysis of students’ paraphrasing strategies first considered some specific factors such as task completion time for each paraphrasing section and the number of units of analysis. It is, therefore, necessary to present these two factors before arriving at the description of the cognitive strategies verbalized during the tasks and revealed in the post task interview sessions.

In general from the time distributions as shown in Figure 1, it can be seen that the upper group (Subject 1 and Subject 2) finished the task faster than the lower group did (Subject 3 and Subject 4).

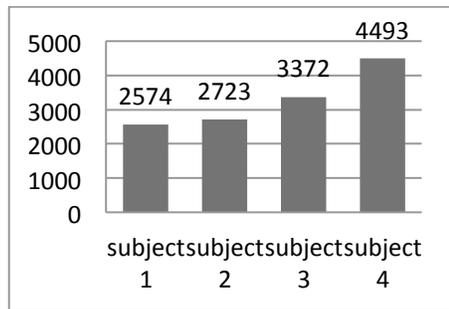


Figure 1. Time (in Second) Taken to Complete the Paraphrasing Task for Each Subject

Differing times of completion as shown above implies varied lengths or steps of decisions taken to complete the paraphrasing task. Overall as shown in Figure 2, the lower group (*lo*) made more decisions (290) than the upper group (*up*) did (256). The discrepancy was not quite large, 34 units, suggesting that a longer time of completion taken by the lower group as previously suggested was made use by attempts to apply more strategies.

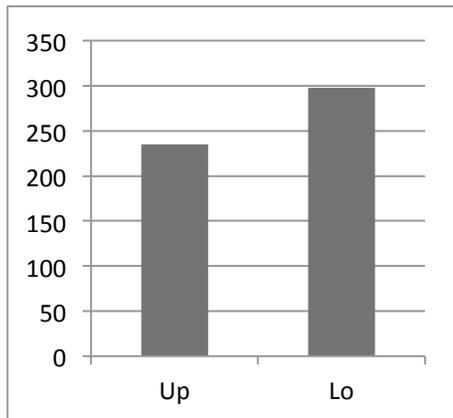


Figure 2. The Total Number of DMEs for Both Groups

Focusing on the paraphrasing strategies obtained from the verbalized report protocols and on the interactions between reading and writing during paraphrasing, this study compares the decision making episode (DME). The result shows that the differing completion time in doing the task seems to correspond to the total number of decision making episode.

The strategies that the subjects utilized while paraphrasing can be classified into cognitive strategies and meta-cognitive strategies, each of which is presented in the following sections.

Cognitive Paraphrasing Strategies

Students in general started their paraphrasing by comprehending the original text as a whole, which leads to the keywords identifying the parts important for comprehension. As soon as they felt confident with the comprehension, they identified the key points to paraphrase. In paragraph level, the subjects would determine the important and unimportant parts first. This would go hand in hand with selecting key terms that were considered impossible to replace.

The next stage is writing the paraphrases step by step through writing down the original message into chunks which later were checked for accuracy against the chunks drawn from the full original sentence. This was conducted

many times corresponding to the chunks created. In this process the subjects involved various strategies such as rearranging information sequence, changing the syntax, using synonyms, and revising the paraphrase to improve the wordings. This is the process which can be said as the main process and takes more time. Finally when the chunks were successfully constructed into a full paraphrase the subjects checked the overall meaning against the original text.

With the variety of main strategies applied as elaborated above, coupled with differing time completions, all the subjects demonstrated different numbers of strategies used. The results of data analysis revealed that there were 21 cognitive strategies applied by all the subjects with several dominant levels in use. In particular, the 21 strategies are briefly presented below.

1. Reading Chunks of the Original Statement

The subjects seemed to take careful attention to the understanding or comprehension of the original statement while reading. They identified and grouped the logically related ideas into chunks which were read more times. The chunks can consist of groups of words, phrases, and/or individual words. This strategy seemed automatic since none of the subjects explicitly reported the action of “chunking” they did. This strategy seemed to be taken by all the subjects, as revealed in the following data.

“Reading is motivated by particular purpose” (Subject 1)

Ok “Reading is motivated”. (Subject 1)

“Increasing comprehension of the text”. (Subject 2)

2. Using Synonyms

Synonyms seem to be one of the most productive processes in the paraphrasing tasks. Before deciding using a particular synonym of a word, the subjects took several specific processes such as suitability of formality level, appropriateness in certain contexts, and even using the MS Word’s built-in synonym software to guess or check the meaning of a certain word. The data below reflect such a cognitive strategy.

“Can I say goals? Is it like...? Purpose and goals. Can I say like? I mean can I use this one for those words “purpose” and “goal”?” (Subject 2)

“| may be I can use |push or force| to alter this word.” (Subject 3)

3. Evaluating the Chunks of the Paraphrase

Subjects did evaluations of the paraphrases being attempted directly after the first words or clauses written. This was continuously done after certain decisions such as using a synonym or combining a newly selected word with the existing phrases or words throughout the paraphrasing process. All the subjects in both groups took this strategy, which make it as an automatic measure taken when paraphrasing a written language. An instance of the utterance reflecting the use of this strategy can be seen below.

“\reading is motivated by particular purpose and is support\, ah that’s better.”

(Subject 2)

“\as we read meaning and interpretation\ hah let’s change this” (Subject 2)

“\ the reader?\ I need to omit the word \how\“ (Subject 2)

structure.

4. Reading the Full Sentence of the Original Text

The subjects explicitly stated that they needed to read the whole text first before beginning to paraphrase. The subjects in both groups felt this was an important start. Reading the original text serves at least two functions as inferred from their times of occurrences. First, it gives the general idea of the topic and coverage of ideas. This function usually occurs at the beginning of paraphrasing session (section) when the subjects deal with the paraphrasing at the first time. Second, it was done at the end of the paraphrasing session and usually was used for checking the completeness of the meaning or coverage of ideas against those of the attempted paraphrases. Here are instances of data from the verbalized report.

“Reading is motivated by the reader’s particular purpose and is propelled by increasing comprehension of the texts. by tom Hudson section one original statement (Subject 1)

[reads] we continually construct and reconstruct our interpretation of the passage and its meaning (Subject 2)

[Reads]The original is..... we continually construct and reconstruct our interpretation of the passage and its meaning (Subject 1)

Now I need to check the general meaning. [reads] Reading is motivated by the reader’s particular purpose and is propelled by increasing comprehension of the text. (Subject 3)

5. Using Dictionary

Dictionary appears to be an important tool for the subjects not only to find the meaning of newly encountered words but also to confirm and check their understanding of meaning existing in their repertoire of vocabulary. During the task, all the participants from both groups used dictionary either electronic or conventional ones, both bilingual (Indonesian-English) and monolingual (English-English). The following excerpt shows the utilization of dictionary.

“Well I’m not sure about the meaning of the word “propelled it’s like [uses English-Indonesian dictionary] let’s find it here. ...I see” (Subject 2)

6. Using Thesaurus

For the subjects using thesaurus seemed to be the main alternative to find synonyms. The frequency of using thesaurus varied across subjects and groups. The lower group used thesaurus more often than the upper group did. This was contributed by Subject 4 who used thesaurus more frequently than the other subjects. This was also the highest cognitive strategy applied by Subject 4.

7. Referring to Syntax

Syntactic shifts in accomplishing paraphrasing tasks seem to be one of natural strategies to take. The subjects changed the structure as soon as the process of comprehending the original statement was completed; sometimes they continuously changed and adjusted the structure during the tasks.

“... the pattern or structure will be similar to the original one but that’s ok because paraphrase we have to change the words” (Subject 1)

“*seperti section pertama yang saya lakukan disitu kalimatnya berbentuk pasif kemudian saya ubah bentuknya menjadi aktif.*” (Like in the first section, I changed the sentence from passive voice to active one) (Subject 3)

The most common syntactic changes occurred on the phrase structure, where subjects made shifts in the uses of verb phrases, noun phrases, and adjective phrases. This leads to transformations of lexical categories, adjusted to the new syntactic functions.

8. Questioning during Paraphrase Writing

Questioning is a part of elaboration strategy. According to Kupper and Chamot (1989, p. 16) questioning is using a combination of questions and world knowledge to generate logical solution to a task. The subjects in certain points questioned their own decisions. The questions were asked during the writing or reformulation process.

“Can I say goals? Is it like...? Purpose and goals. Can I say like? I mean can I use this one for those words “purpose” and “goal”?” ((Subject 2)
“Is it appropriate to use the word easily?” (Subject 3)

9. Evaluating Full Paraphrase

Evaluating the full sentence of paraphrase was commonly the last step taken by all the subjects in both groups to check the accuracy of grammar and equality of meaning. This was especially visible as this strategy occurred close to the reading of the full original text before the subjects decided to stop doing the task. The following excerpt reflects this strategy.

“[Reads] The original is.... *we continually construct and reconstruct our interpretation of the passage and its meaning* . and... (Subject 1)
“\To understand the passage the reader build and rebuild his vision of the text and its meaning\ (Subject 1)

10. Changing Information Sequence

The orders of information or ideas in the original sentence were reorganized by the subjects in both groups. All the subjects in the upper and lower groups applied this strategy as can be seen from such data as below.

“I think I will say that one first so that it is different from the original one”
“If I put motivation at the first it would mean a different thing. The first... the first mean...?” (Subject 2).
“So let's start from *the readers' particular purpose* first.” (Subject 3)

11. Making Inference

Grand and mundane so... this one must be opposite. *Grand is good while mundane* is not. (Subject 2)

The subjects tried to ascertain that they had understood the idea through making inference both after reading the full sentence or carefully reading the chunks.

12. Finding Keywords and Key Points

The subjects identified the keywords in the original statements; in some ways they later functioned as the key points which were considered to be retained in paraphrases in order to determine the semantic completeness.

“Ok I will start by looking at the key words here. Ok the first is “*reading...*” and then “*motivated*” and then “*readers particular purpose*”..and then “*comprehension of the text*” (Subject 2),
“Well the key is interpretation, I’ ll change that” (Subject 2).

13. Recognizing Text Structure/Rhetorical Cues

Text structure refers to how the ideas in a text is structured to convey message to a reader (Carrell, 1992 in Hudson, 2007, p. 179). In this case, recognizing text structure involves understanding meaning through analyzing the cohesive devices and discourse markers that contribute to the logical relation of ideas.

“So we can say that it is reading.. and there are two things as it is connected by *and*. So there are two things in the same hierarchy, um.... the purpose and..comprehension.” (Subject 2)
“Because this is in the form of paragraph, with topic sentence in the first, may be I need to separate it into sentences. (Subject 3) The first sentence is the first (Subject 3)”

14. Reference to the Gist or Main Idea

After reading the paragraph in Section 4, for example, Subject 1 immediately identified the sentence that contains the main idea. He thought to himself “I think the main ideas are in these sentences” (Subject 1). This seemed to influence the points he included in the paraphrase as it was significantly shorter than the original statement. This was almost entirely different from Subject 2 although residing in the same group. She tried very hard to maintain the completeness of the ideas. In her understanding, a good paraphrase should be

roughly in the same length as the original one as it should include all the ideas. In the post task interview she clarified this point.

Meanwhile the lower group picked a similar strategy as what Subject 1 did. "OK. This about reading that human has more ability than other things in the world that can use their brain to communicate ideas. That is the main point of this paragraph" (Subject 3). As predicted, this corresponded to the ideas she incorporated in her paraphrase whose word count showed 33 words used, the same as that of subject 1 in the upper group. Interestingly, right before deciding to complete the section 4 she reflected about this reference to summary:

ok but I think it seems like a summary of the original statement but it include all their opinion of the original statement. (Subject 4)

Sometimes I difficult to differentiate whether it is a paraphrase or a summary. (Subject 3)

I know that a summary is shorter than the original statement but.. About the paraphrase sometimes if it is includes the opinion of the original statement we can say that it is also the paraphrase ... (Subject 3)

ok it is complicated because I m not sure the different between paraphrase and a summary . (Subject 3)

15. Reference to Summarizing

After analyzing the key information in Section 4, Subject 1 directly planned to prune the ideas in the excerpt, saying that

"I will make the paragraph simpler than the original one" (Subject 3).

This certainly affected the length of the paraphrase significantly shown by the word count (70 words in the excerpt and only 33 words in his paraphrase), which very likely reduces the aspect of semantic equality. Similarly, Subjects 3 and 4 seemed to inadvertently refer to summarizing. Subject 3 gave the gist of the paragraph:

"OK. This about reading that human has more ability than other things in the world that can use their brain to communicate ideas. That is the main point of this paragraph" (Subject 3).

16. Retaining Technical Terms

Technical term refers to the proper nouns such as *aluminum*, etc. As the task did not contain proper nouns or the lexicons specifically tied to specific terms, thus no specific expectation was placed on this aspect in the subjects' paraphrases. Interestingly, this turned different in the field. Putting aside the intention of direct copying, some subjects did consider retaining certain words considered as the key terms.

In the upper group, Subject 1 explicitly considered that the word *reading* as a noun cannot be replaced by the other words. He said "Ok so I will still use "*reading*" because this cannot be expressed by other word" (Subject 1). Subject 2 did the same thing, yet he/she did not articulate it explicitly.

17. Including the Reference

Written source included was only found in the paraphrases produced by Subject 1 who right before deciding to complete the paraphrase included the source using the format familiar and acceptable in the study setting.

"I think should include the source. Here [types] Hudson 2007. Ok that's it for section one" (Subject 1). "Ok Hudson. Ok." (Subject 1).

18. Questioning for Comprehension

One of the strategies in understanding the excerpt is through self-questioning which calls for an elaboration.

"And this is also not very clear because the question is whose ability?" (Subject 1)

19. Using Antonyms

The use of anonym was found to be applied only by the lower group. Subject 4 related the use of synonym with antonym especially in finding the meaning of a certain word.

"No I'm trying to find *construct*, the word *construct*, I m try to find another word or the antonym of the construct. Verb. This is another, another option. We can use another sources. [referring to antonym use]" (Subject 4)

20. Checking the Reference of the Source

Once the original text was read, some subjects took a separate time to notice the source or the writer of the original statement. This time the subject usually did not include the reference since citation was written in final stages.

“It is the statement said by Hudson” (Subject 3).

“Well, as this is a kind of the original source from Hudson” (Subject 4)

21. Using Hedging

Hedging is one of the characteristics of academic writing where the objectivity is seriously maintained. Using hedging was explicitly described by Subject 1 from the upper group.

“oh no. \reading is “usually”. I will use *usually* because it is not always true” (Subject 1).

Meta-cognitive Paraphrasing Strategies

In addition to using cognitive paraphrasing strategies, the subjects were found to apply meta-cognitive ones. The analysis is based on the learning strategies by Chamot and Kupper (1989). The strategies found in this study can be categorized into Planning, Self-monitoring, Self-evaluation, and Directed Attention. Self-monitoring is further divided into the strategies of Comprehension Monitoring, Production Monitoring, Visual Monitoring, and Strategy Monitoring, whereas Self-evaluation comprises Production Evaluation and Ability Evaluation. Each strategy is explained in the following sections.

1. Planning

Following Chamot & Kupper (1989), planning in this study is defined as generating a plan for the parts, sequence of ideas, or language function in the paraphrasing task. The planning was found at the beginning of the task, and some different parts of plans for solving problems were identified in the paraphrasing process. All of the subjects started the paraphrasing process by reading the original statement.

During the course of the task, the subjects faced some challenges that require them to make some plans to solve problems related to the reformulation

strategies. Although some individual differences were noticeable, it is clear that the planning plays an important role in controlling the cognitive processes conducted in the earlier stages of doing the task and during the course of the task.

“ok I’m reading the question first.” (Subject 1)

“Ok I think I need to read the sentence, the whole sentence first”.

“I need to understand the text first” (Subject 3)

“I don’t know if it will make into a different, different perspective if I’ll put this way” (Subject 2)

2. Comprehension Monitoring

All the subjects in both groups did comprehension monitoring, which usually occurred after they read the original statements which can be in the forms of full parts of excerpts and chunks. According to Chamot and Kupper (1989, p. 248), this meta-cognitive strategy is applied when subjects are trying to check, verify, or correct their understanding.

In understanding the excerpt or the first original statement, Subject 2, for example, confirmed his comprehension with the utterance of “OK” before starting to write the paraphrase with some planning in mind. Later he returned to the excerpt and read a chunk of “*Reading is motivated by particular purpose*”, and he ensured his understanding by saying “OK”. He later reformulated the chunk.

3. Production Monitoring

Production monitoring is the most common meta-cognitive strategy applied by all the subjects in both groups. This is especially used because the subjects usually produced the paraphrase in the forms of chunks whose meaning was checked iteratively with the chunks of the excerpt. This strategy was applied almost automatically as soon as the subjects produced the chunks of paraphrases. The following examples show the use of this strategy.

oh no no no it is not the same (Subject 1)

hmm that is better than the word |again| (Subject 2)

Ok I need to check the meaning first before I continue. (Subject 3)

Ohohoho *ngaco ngaco nih.* . (Subject 4)

4. Visual Monitoring

Subjects were found to do visual monitoring especially by comparing the length of the paraphrases they produced to the length of the original text. This strategy was taken mostly by the subjects in the lower group when they were paraphrasing the paragraph, but not when paraphrasing sentences.

“It looks like a summary. Or I need to add more?” (Subject 3)

5. Strategy Monitoring

Strategy monitoring refers to the tracking of how well a strategy is working (Chamot & Kupper, 1989). Not all the subjects reported what strategy they used, how the strategies were applied, and how they controlled the strategies. Interestingly, Subject 4 from the lower group reported one distinct strategy that was not used by the other subjects. She used antonyms to guess the meaning of a word.

For section two I think I mostly use thesaurus for the synonym. I'm trying to use the antonym for find the meaning but so far mostly I use synonym or thesaurus to paraphrasing. I'm trying to finish my sentence (Subject 4)

6. Production Evaluation

This meta-cognitive strategy is grouped under the category of self-evaluation by Chamot and Kupper (1989). Production evaluation was mostly intended to evaluate or check the work when the task is finished and generally appeared in the final stages of the paraphrasing-task execution. In other words, this strategy focuses on the outcome instead of the production process.

“I think that's it” (Subject 1)

“OK I think so” (Subject 1)

“Ok I guess that is it. Hah not sure with the first sentence.” (Subject 2),

“Ok I think it is better” (Subject 3).

7. Ability Evaluation

The results of data analysis and verbal protocol indicate that all the subjects articulated the lack of confidence, mainly caused by the deficiency in the criteria of acceptability of a paraphrase.

“Hmm...I don't know whether it is good or not.” (Subject 1)

The lower group with more frequency of DMEs on the ability evaluation indicated a more serious challenge.

“Sometimes I difficult to differentiate whether it is a paraphrase or a summary.”

“Sometimes I don't know if I have to paraphrase a paragraph if it contains ten sentences I need to make the paraphrase ten sentences or it can be shorter than the original statement .” (Subject 3)

8. Directed Attention

It is interesting to note that despite the liberty of using either Indonesian or English, all the subjects decided to carry out the verbalization mostly in English. In the post task interview, all the subjects claimed that they preferred speaking in English as this helps them maintain the focus on the thinking process and contributes to the acceleration of task completion. The following extracts were taken from the interview transcripts.

Lebih enak mikirnya . huh uh kalo bahasa indonesia jadi bingung. (It's easier to think [in English]. When using Indonesian, it's confusing) (Subject 4)

Discussion

The perceptions, which were elicited by means of questionnaires, indicate that the subjects have been familiar with the widely known concept of paraphrasing. All the subjects in both groups shared similar definition of paraphrase. Their familiarity with the concept of paraphrasing was also shown by their responses to the goal of paraphrasing, in spite of some degree of variation. The subjects perceive that the purpose of paraphrasing is to simplify the content, to avoid plagiarism, to improve clarity of the content, and to reformulate the same ideas using different words. These goals have been acknowledged by scholars such as Uemlianin (2000) and Davis and Beumont (2007). To the participants of this study, such a concept and definition to a certain extent were subconsciously set as the objectives stored in long-term memory (Flower & Hayes, 1981, p. 369) and applied when the subjects were writing the paraphrases during the task.

This understanding of the goals and the definition, however, was not sufficiently and consistently reflected in the paraphrases produced. Although all the subjects had exerted their best efforts to perform well in the paraphrasing task as shown by the high number of DMEs and time completions, most of the paraphrases (13 out of 18 paraphrases) contained copied words, leaving only 3 paraphrases substantially revised and thus indicating a disconnect between what they understand about a proper paraphrase and the result of their work. This result furnishes the outcome of the previous study by McInnis (2009) where, despite the use of an extensive variety of strategies, the subjects still did some direct copying which might be unacceptable.

Another main point arises from the conception of paraphrase itself; that is all the subjects acknowledged that they had no clear understanding of the criteria of paraphrase acceptability. This can be seen from their self-reports, usually in the middle of doing the task and in the final stage of the writing process, especially when they utilized the meta-cognitive strategies of product monitoring and ability evaluation. All the subjects explicitly sounded doubtful and seemed to have little confidence in the work they completed.

The challenging nature of paraphrasing a written text in academic contexts does not seem to be confined only to the fuzziness of the plagiarism concept. Despite the subjects' positive attitude toward the usefulness of paraphrasing, they assert that paraphrasing is difficult for several reasons, such as having difficulty in maintaining meaning using different language and lacking of self confidence in paraphrasing skills. Such difficulties were quite obviously reflected in the process of doing the task when the students spent most of the time finding and considering the appropriate lexical items.

The perceived ideas about the paraphrasing function to avoid direct copying have a direct influence on the paraphrasing process. This can be seen in the data concerning the subjects' spending most of their time matching the original texts they read with the paraphrases they created, setting them back and forth in these strategies, evaluating the accuracy of the paraphrases which deal mostly with the synonym use. This is where usually the subjects had the hard time. Subjects in the upper group tend to have more knowledge concerning the aspects of appropriate lexical choice such as considering the formality level and the suitability in the context. Meanwhile subjects in the lower group seem less certain about the appropriateness of the lexical items, and they seemed to simply resort to directly copying the original words when failing to find synonyms.

The subjects have applied a number of strategies which are classified into cognitive and meta-cognitive strategies. In general, all the subjects in both groups applied similar strategies at both sentence and paragraph levels. At the sentence level the subjects applied cognitive strategies, covering reading chunks, synonyms, evaluating chunks, reading full original statement, using dictionary, using thesaurus, referring to syntax, questioning their own written paraphrases, evaluating full paraphrases, changing information sequence, making inference, locating keywords, recognizing text structure, retaining technical terms, writing reference, questioning for comprehension, using hedging. The lower group generally applied the same strategies but with addition of strategies namely checking the source, using antonym, but not using the strategy of writing reference. In paraphrasing the paragraph both the upper and lower groups employed roughly similar strategies with addition of two strategies identified to be consistently applied, namely finding the main idea and summarizing. The first strategy is specific to the nature of paragraph which contains a main idea and supporting ideas. In general these findings are similar to those found in McInnis's study (2009).

The cognitive and meta-cognitive strategies show that the subjects basically started with comprehending the original text, writing the paraphrasing, and checking the completeness of meaning against the original text. This result corroborates what Green (1991 in Plakans, 2009) refers to as mining which is defined as an intensive reading to extract information for a specific goal. Text mining was also found to be the strategies most frequently applied by more proficient readers when integrating ideas read from a specific text into writing (Plakans, 2009, p. 9). He also found that text mining strategies appeared more regularly in the writing stage. In the writing process, some previous existing knowledge and perception about paraphrasing, such as the definition and the goal, seemed to take part in controlling the process as indicated by the use of meta-cognitive strategies like self monitoring and self evaluation.

The subjects also preferred to think in English throughout the course of the task although some minor switches to Indonesian or Javanese language occurred. This is acknowledged by the subjects to be a strategy to minimize the problem of interference from the first language, which is made possible because the subjects are advanced language learners. This phenomenon is also associated with the nature of paraphrase itself which shares common features with translation (Uemlianin, 2000), also identified and suggested as a strategy

in language learning (Chamot & Kupper, 1989) which can stimulate students to think in the target language.

The form of the source whether it was a sole sentence or a paragraph influenced the way the subjects view the paraphrasing and the way they do the paraphrasing. The most apparent difference in terms of the strategies was the reference to summarizing. All the subjects except Subject 2 referred to summarizing strategies, leaving aside the details of the information deemed insignificant in the paragraph. Summarizing and paraphrasing basically differ one to another in the sense that paraphrasing is around the same length as the original (Davies & Beumont, 2007, p. 1, Swales & Feaks, 2004:158).

CONCLUSIONS AND SUGGESTIONS

Students perceived paraphrasing as a useful tool especially in the context of academic writing to avoid the risk of plagiarism. Their definition, function, and objectives of paraphrasing generally conform to the widely accepted concepts among scholarly circles.

All the subjects use cognitive and meta-cognitive strategies with some differences in application for sentence and paragraph. The cognitive strategies for paraphrasing in the sentence level for the upper group include reading chunks, synonyms, evaluating chunks, reading full original statement, using dictionary, using thesaurus, referring to syntax, questioning the text written paraphrases, evaluating full paraphrases, changing information sequence, making inference, locating keywords, recognizing text structure, retaining technical term, writing citation/reference, questioning for comprehension, using hedging. The lower group generally applies the same strategies but with the addition of strategies namely checking the source, using antonym, and without the strategy of writing citation/reference.

Most of cognitive strategies used in the sentence level are applied in the paragraph level with some additions of strategies that are specific to paragraph development and synthesis such as finding main ideas and summarizing. In terms of meta-cognitive, strategies used by the subjects in the upper group include production monitoring, comprehension monitoring, planning, production evaluation, ability evaluation, visual monitoring. The lower group employs the same meta-cognitive strategies as those utilized by the upper group with an addition of strategy monitoring.

All the subjects tend to use English as the target language in doing the paraphrasing task. This is a specific strategy which was acknowledged to help the cognitive process particularly because a switch to L1 is not easy for all the subjects of this study who are adult students studying at a graduate level.

Based on those conclusions, it is suggested that teaching paraphrasing be presented with a clear expectation of acceptability. It is important to provide a clear cut distinction between paraphrasing and summarizing. Additionally, it is advisable to include the construct of text mining and activities that integrate comprehension and writing informed from written sources. For students it is important to do an intensive practice that involves and integrates comprehension and writing in low-stake time constraint and to gradually build the skills of comprehension and writing, particularly paraphrasing. Students also need to practice paraphrasing using several strategies. A number of strategies are available to try. Some writing manuals suggest doing paraphrasing in a rather discrete fashion, that is, understanding the meaning of the original source and identifying important words and phrases, turning it over, writing in own words, and finally comparing it with the original meaning. For institution, it is important to establish certain rules that incorporate the evaluation of consecutive words copied directly from the text. For future researchers, investigation may be expanded into wider language groups for example comparing Indonesian speakers of English and native speakers of English or the comparison among groups with differing levels of English proficiencies. The comparison can be focused on several aspects such as the strategies, the perceived appropriateness and quality, and specific challenges. Further research can also be directed toward finding the nature of paraphrases integrated within the contexts or embedded in the simulated texts or finished written products.

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