EFL UNDERGRADUATE STUDENTS' COGNITIVE STRATEGIES IN PROCESS-BASED WRITING

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Abstract: Even though process-based writing has been extensively researched and implemented in higher education, little is known about how cognitive strategies are implemented in process-based essay writing. This study investigated how EFL undergraduate students used writing strategies in English essays. The process of writing was investigated by using cognitive theory in this semi-structured interview qualitative research. The two participants were English language education department batch 2019 students from a private university in Yogyakarta who had completed their processes-based essay writing final project when the study was conducted. The findings revealed that Rara and Kevin (the participants' pseudonyms) used different writing strategies in the essay writing process planning stage. Rara organised her writing using the outline, whereas Kevin used keywords to organise his writing. This study implied that when teaching process-based essay writing, a language teacher or lecturer should be aware of the different stages of the student's cognitive strategies, especially during the planning stage.

Keywords: cognitive strategies, essay writing, process-based writing

INTRODUCTION

Writing is one of the skills that must be learned when learning a language. Chien (2012)contends that writing is usually required in higher education for papers, reports, and thesis in the context of EFL higher education. According to Soltani & Kheirzadeh (2017), good writers improve their writing effectiveness by employing deliberate, concentrated thinking strategies. Furthermore, they argue that a writer's choice of tactics is determined by the intended audience and the interaction between the writer and the audience.

In higher education academic writing, undergraduate students usually enrol in several writing courses that shape their critical thinking and writing skills, starting from

paragraph writing, essay writing, academic reading and writing, thesis proposal writing, and undergraduate thesis. For example, Hapsari & Ratu (2019) suggest how process-based writing and genre-based approach can be integrated into paragraph writing coursework. Meanwhile, Takriyanti et al.(2021) investigate types of lexical cohesion (reiteration and collocation) and coherence (repeated key nouns and use of consistent pronouns) in students' paragraph writing. Furthermore, Rahmawan & Perianto (2021) argue that critical thinking is important to higher order thinking skills and offer a matrix of thesis assessment for academic writing in the university: originality and the depth of the problem, systematic of writing, language use, the correct research methodology and its application, the ability to present material and scientific argument, the relevance of the research theory problem and the English language, and the contribution of the research result to English development studies.

As critical thinking in academic writing strategies is potentially bridged by the cognitive theory, the second author, the first author's thesis supervisor, leads the first author to navigate the theory, concept, and empirical studies on cognitive strategies in a foreign language, especially in essay writing. The navigation brings the first author to a discussion of metacognition and cognitive monitoring that shapes our critical thinking skills in process-based writing, as suggested by Flavell (1979). According to Flavell (1979), several strategies involving complex cognitive activity occur during writing, and their use is purposeful cognitive action. Flower & Hayes (1981) expla these cognitive strategies in a cognitive writing process in EFL writing. Meanwhile, in the last four years, despite much research into writing strategies in higher education (Abas & Aziz, 2018; Ardila, 2020; Dian et al., 2020; Nanik et al., 2019), to the best of the authors' knowledge, there has been no empirical study to investigate cognitive strategies in process-based essay writing. The process-based writing approach focuses on the writer's non-linear thinking and emphasises the importance of repeated thinking in learning to write (Flower & Hayes (1981); (Nagao, 2018)), which means that writing is viewed as an improvement of the first draft during the teaching and learning process rather than a single draft as the product. This study attempts to fill the gap in processes-based writing from previous studies, particularly in the Indonesian context. This study aims to investigate the use of EFL undergraduate students' writing strategies in the cognitive theory of process-based essay writing final project.

Essay writing is taught in semester 2 at the private university where the research was carried out. The private university is in Indonesia, and English is taught as a foreign language. The same process-based writing had been implemented in paragraph writing coursework in semester 1 at the same department where the research was conducted and should be enrolled by students before they continue to essay writing coursework(Hapsari & Ratu (2019). Therefore, to learn how process-based writing proceeds when the students use cognitive strategies in essay writing coursework, referring to Agee (2009), the first author reflectively formulated the research question: How do undergraduate students use cognitive strategies in process-based English essay writing? This research investigates how undergraduate students use cognitive strategies in EFL essay writing. This study is intended to contribute both empirical and practical ground to the study of EFL writing. On the empirical ground, this study adds to the empirical evidence on how EFL undergraduate students in a private university use cognitive strategies in their final essay writing project. On a practical level, the study can be a reference for the readers applying cognitive strategies in process-based writing to be more aware of the details in the stage of planning, composing, and reviewing the drafts.

REVIEW OF LITERATURE

Ardila (2020) defines writing strategies as conscious decisions writers make to solve writing problems. Mu & Carrington (2007) explain that in choosing what writing strategy to use, the writers should be very conscious and use writing strategies aimed to solve the writing problems. Chien (2012) investigates students' use of writing strategies in their English Writing. This research used a cognitive theory to examine the process of writing. It used videotaped think-aloud protocol and interviews. Results indicated that compared to low-achieving student writers, high-achieving student writers were more aware of and focused more on formulating their position statement in planning, generating text, and revising and editing their text, such as changing the meaning and fixing grammatical and spelling errors during their review. In the Indonesian context, several researchers investigated the writing strategies used by Indonesian EFL undergraduate students (Abas & Aziz, 2018; Ardila, 2020; Dian et al., 2020; Nanik et al., 2019).

Dian et al. (2020) investigated the writing strategies used by English Foreign Language undergraduate students at various English proficiency levels, as well as their

English proficiency, as measured by the students' receptive vocabulary knowledge and the quality of the texts they produce. This study's participants used three writing stages: pre-writing, drafting and revising. Meanwhile, Ardila (2020) investigated how undergraduate students used writing strategies differently depending on their abilities and gender. This research is based on sub-variables or subcategories of strategies, with each type of strategy utilising students' memory, cognitive, compensatory, metacognitive, social, and affective strategies in writing. As a result, the study's findings explain why female students used strategies more frequently than male students.

Abas & Aziz (2018) investigated the writing strategies used by Indonesian EFL postgraduate students. They did, however, limit their sample to only proficient student authors, which consists of eight writing processes: pre-writing, planning, drafting, pausing, reading, revising, editing, and publishing. According to the findings, student writers use a five-step writing process and ten writing strategies: (1) clarifying strategies, (2) focusing strategies, (3) relying on past writing experiences, (4) taking advantage of first language/culture (5) using current experience or feedback to adjust strategies (6) looking for models (7) using strategy taught in writing class (8) accommodating the teacher's requirements (9) resisting the teacher's requirements (10) managing competing demands.

Nanik et al. (2019)investigated how high and low achievers use writing strategies. The qualitative method was used in the study. An open-ended questionnaire and a structured interview were used. In this study, they investigated writing strategies taxonomy before writing, while writing, and after writing strategies. The findings of this study revealed that the subjects used all twenty writing strategies investigated in this study; second, high achievers use writing strategies more frequently than low achievers.

This study is different from the previous study on Indonesian EFL writing strategies because the researchers used the cognitive theory as a research model and attempted to make the participants reflect on their experience in applying cognitive strategies in process-based writing in the planning and composing stage reviewing the drafts. According to Flower & Hayes (1981), this model is important for several reasons. First, it helps prepare theoretical models that spark broad discussion by researchers about the empirical writing process. Second, it establishes interdisciplinary links between composition studies, cognitive science, and psychology. Flower & Hayes (1981) explain

three writing processes that a first language (L1) / second language (L2) writer may undergo during writing based on cognitive theory.

Planning

Planning comprises three sub-strategies: generating ideas, organizing, and goal setting. According to Flower and Hayes' model, generating ideas consists of retrieving relevant information from the task environment and long-term memory, which is a storehouse of knowledge about discourses and topics. Organizing entails selecting the material retrieved by the generating process and organizing them into writing. The other sub-strategy of planning is goal setting. In this sub-strategy, some materials from the generating process are criteria used to judge the text in terms of meeting the specified goal.

Table 1. Sub-strategies of the planning process

No.	Sub-strategies	Description
1	Generating Ideas	Students need to develop skills to get what they know about a topic down on paper and generate ideas or find additional facts.
2	Organizing	Students need to know how to organize what they have learned about any topic or assignment into a well-structured whole.
3	Goal Setting	Students can generate ideas in writing; these ideas lead to more complex goals.

Composing (Translating)

The second part of the writing process, the act of composing, referred to as translating, is when a writer puts his/her ideas into visible language, an activity in which the writer transforms his/her ideas from a linear or hierarchical plan into sentences. It involves putting ideas into the language (text generation) and written words (transcription) to create cohesive and coherent texts.

Reviewing

Reading and editing are the sub-strategies of reviewing. In these sub-strategies, the writer examines any material written to correct anything that would prevent the text from meeting the established goals—these cognitive strategies include correcting grammatical errors and altering the contents of the writing. Reviewing is a conscious

process in which writers choose to read and examine what they have written as a springboard to further translating or systematically evaluating, or revising the text.

According to Flower & Hayes (1981), the ability to think and to coordinate the focus of attention among various strategies to ensure progress and quality of writing are careful monitoring of the writing process. To be a proficient writer, a person needs to actively regulate and monitor his or her progress towards cognitive goals, this process is referred to as executive control (Hayes, 1996). Through monitoring, the writer switches back and forth between different strategies in the writing process.

The previous study about the use of writing strategies was many, but only several of them followed the theory of writing strategies from Flower & Hayes (1981). Therefore, the following section will explain a few research categorized above.

METHOD

The purpose of this study is to investigate how undergraduate students use cognitive strategies in EFL essay writing coursework. The researcher used the descriptive qualitative method to collect data to find out what strategies they use in English essay writing. According to Lambert (2012), a descriptive qualitative study is the simplest of all qualitative studies because it employs an approach with a pre-existing theoretical commitment. The study was carried out in an essay writing class. Students who have completed their processes-based essay writing coursework are eligible to participate. Two undergraduate students enrolling in essay writing coursework agreed to participate in the research as participants. Participants pursue a degree in English education at one of Indonesia's private universities. Participants include both male and female students. The female participant is referred to as Rara, and the male one is referred to as Kevin; both are 22 years old. They are in different classes, Rara in B and Kevin in A, but the same lecturer taught them. In their essay writing class, the participants were assigned to write a short essay demonstrating the ability to respond to a question, conduct basic research, write notes, outline a plan, write the first draft, and submit a final version of the essay, including a reference list. The lecturer instructs students in the final essay writing assessment to choose one of the four proposed essay topics, then students must find references to support their arguments, and the essay must be written in around 500 words.

Due to the inability to collect data directly during COVID-19, this study relies solely on online interviews via voice notes via WhatsApp application to collect their

process-based essay writing, beginning with composing the introduction, body paragraphs, and conclusion. Semi-structured interviews were used to inquire about participants' experiences, meanings, and the reality of their experiences, as well as to investigate how these experiences, realities, and meanings may be shaped by larger society's discourses, assumptions, or ideas (Evans & Lewis, 2018).

Table 2. Interview Questions

Definition	Concept	Component	Interview Questions
There are three stages that a first language (L1) / second language (L2) writer may undergo during writing based on Flower and Hayes' (1981) cognitive theory	1. Planning	- Generating Ideas - Organizing - Goal Setting	- Can you tell me how you can get some relevant information related to the topic in essay writing? - Can you explain to me how you are selecting materials and arranging them into well-structured sentences? - Can you explain to me how you come up with ideas in essay writing
	2. Composing	- Translating	- How do you generate the text related to your topic?
	3. Reviewing	- Reading and editing	- How do you evaluate your essay writing results?

Referring to Braun & Clarke (2021), the following steps are take to analyze this study's data. The first step is to become acquainted with the data by re-reading the transcript data. The researcher conducted meaningful patterns related to the data from the obtained data. Second, generate preliminary codes by taking notes on the text to be analyzed. Put a comment and text highlight color on the participant's answer related to the theoretical framework. Third, look for themes by categorizing different codes into potential themes and compiling all relevant data. Fourth, go over the themes. During this phase, the researcher reviewed and refined the collected data into two groups: large and small. The fifth step is to define and name the themes. The last step is to write the report. Because the interviews were completed at different times, the researcher recorded the results using two table transcripts for Rara and Kevin. The researchers then coded the transcript using the thematic analysis method. Finally, the researchers regrouped the

analysis results into one big theme with three sub-themes and five sub-themes of category keywords. Thematizing is a method for categorizing data based on themes extracted from interview data. Thematic analysis, according to Braun & Clarke (2021), is a method for identifying, analyzing, and reporting patterns (themes) in data. Organize and explain our data set in greater detail, then interpret it into different aspects based on our research topic. The following table serves as an example of the themes and sub-themes:

Table 3. Thematizing matrix

Themes	Sub-themes		Coding
Cognitive theory of writing processes and strategies	Planning	Generating Ideas	P/GI/RA/001 P/GI/KE/001
		Organising	P/O/RA/001 P/O/KE/001
		Goal Setting	P/GS/RA/001 P/GS/KE/001
	Composing	Translating	C/GT/RA/001 C/GT/KE/001
	Reviewing	Reading and editing	R/RE/RA/001 R/RE/KE/001

Table 4. Coding System

Coding Sample	Meaning
P/GI/RA/001	'P' is for Planning. 'GI' is for Generating Ideas sub- theme. 'RA' is for Rara means the data found in Rara's interview transcript. '001' means it is from interview transcript line 1.
P/O/KE/001	'P' is for Planning. 'O' is for Organising sub-theme. 'KE' is for Kevin means that the data found in Kevin's interview transcript. '001' means it is from the interview transcript line 1.
P/GS/RA/001	'P' is for Planning. 'GS' is for the Goal Setting sub-theme. 'RA' is for Rara means the data found in Rara's interview transcript. '001' means it is from the interview transcript line 1.
C/GT/KE/001	'C' is for Composing. 'GT' is for Generating Text sub-theme. 'KE' is for Kevin means that the data found in Kevin's interview transcript. '001' means it is from interview transcript line 1.
R/RE/RA/001	'R' is for Reviewing. 'RE' is for the Reading and Editing sub-theme. 'RA' is for Rara means the data found in Rara's interview transcript. '001' means it is from interview transcript line 1.

FINDINGS

The researchers analyzed and concluded the research data based on the results of the interviews. There are three themes: (1) the planning process, (2) the composition process, and (3) the reviewing process. The interviews revealed that Rara and Kevin used similar writing strategies in essay writing, beginning with preparing the introduction,

body paragraph, and conclusion. In this study, Rara's interview took place on Saturday, July 10, 2021, from 11.00 AM to 1.05 PM, and Kevin's interview took place on Sunday, July 11, 2021, from 3.00 PM to 5.00 PM. The findings presented that the participants used cognitive strategies during the three stages of process-based writing: planning, composing and reviewing. According to Flower and Hayes (1981), the planning stage includes cognitive strategies such as idea generation, organization, and goal setting. Meanwhile, translation is used as only one cognitive strategy during the composing stage. Finally, the reviewing stage includes cognitive strategies like reading and editing.

In the planning process, when participants want to write an essay, they select one of the four topics that the lecturer has determined. The two participants chose different topics; Rara chose "Death Penalty Should be Banned", while Kevin chose "The importance of using smartphones in students' higher education". Then, after determining the topic, participants tried to find some references related to the topic, and to make their essays organized and easy to understand, participants took notes and outlined the topic. Then, in each sub-essay format, such as introduction, body paragraph and conclusion, participants will fill in the important points of the sub-essay formats.

After determining an interesting topic, they continue to collect some information related to the topic they have chosen, or it can be called generating ideas. In this strategy to get the information, Rara reads several books or articles related to the chosen topic. Also, she is browsing about the topic. (P/GI/RA/003). Unlike Kevin, he looks for relevant information from google scholar, and he also looks for several journals to support his essay writing. (P/GI/KE/003). Therefore, they have used the same strategy in generating ideas.

> "Mm… why can I collect his data, because **I read several books or articles and also eee… I'm browsing about sir. William.**" **(P/GI/RA/003)**

> "Okay, mmm… **I'm looking for relevant information to support my essay writing from Google Scholar**, since long ago, even before I went to college, I really liked looking for some sources on Google Scholar because these sources are very reliable compared to using blocks or another google account, well besides google scholar, ee… **I'm also looking for some journals or we can say e… articles, yes, to support mm… the contents of my essay writing at that time.**" **(P/GI/KE/003)**

In generating ideas strategies, Rara and Kevin determine their respective topics, where orders from their essay writing final project are given four choices of topics and are required for them to choose one. After determining the topic, Rara continues to look for relevant information related to the chosen topic, starting from reading books or articles, and browsing about topics that will be used as text. Unlike Kevin, to support his final essay writing project, he looks for information through Google Scholar and reads several journals or articles.

After looking for the resources for the references in the essay writing, both participants organize their references. The process of organizing is critical in creative thinking and discovery because it can form new concepts and group ideas. This strategy allows the writer to identify several categories in a text, such as introduction, body paragraph and conclusion. Each participant has a different approach to organising and citing the sources in the essay.

> "Well… and **if the topic I have chosen is understood, I will first write down the organization, like eee… what can I write in the introduction, body paragraph and conclusion**." (P/O/RA/004)

> "Eee… to organize sentences or choose content for my introduction, or body paragraph or even in conclusion, **I get used to using key terms or keywords uhuk…(cough) from ee… what will I look for in the introduction. For the body paragraph, I usually take it in the literature review section or in the methodology section before participants.**" (P/O/KE/004)

In organizing strategies, Rara must understand the topic she has chosen; after she understands it, she immediately organizes each sentence according to the introduction, body paragraph and conclusion. On the other hand, Kevin uses critical terms or keywords in an article and then arranges and adapts them to the sentence in an essay. From the finding, it is implied that Rara's approach to organize the content is from macrostructure (the text structure), which she developed from her understanding of the topic given by the lecturer of the essay, while Kevin's approach is more on content adaptation in each text structure from the resources he navigated.

Goal setting is indeed the third strategy of the planning process. The author creates the setting of an essay. Therefore, they organize and generate new ideas in their essay

writing. In this study, participants have different goals in preparing their essay writing because in the final project, they choose different topics.

> "My goal is to write eee… this article, because **I want to warn people out there and also to myself not to easily judge other people from… maybe from emm… just someone else's fault, what should we look for eee … we have to look for evidence eee… which is so vital that he's actually wrong.**" **(P/GS/RA/002)**

> "Why did i choose this topic? Because uh… **in this era,** ehek (cough)… **many of us are not just students, but parents of high school students or teachers really need smartphones, even though in the days before the pandemic we were forbidden especially when I was at school it is forbidden to bring cellphones or smartphones, but now smartphones are used as very important tools, we can say the second book, the second handbook that we must bring to school." (P/GS/KE/002)**

According to the statement above, the two participants have similarities and differences in determining goal setting in essay writing. What they have in common is to create goals that fit their chosen topic. The difference is that the goals they create are different because each chooses a different topic. In addition, the two participants have different ways to improve their goal setting in a text. Therefore, different goals can affect the development of students' essay writing.

The second part of the writing process, the act of composing, referred to as translating, is when Rara and Kevin put their ideas into visible language, an activity in which the writer transforms his/her ideas from linear into sentences. It involves putting ideas into the language (text generation) and written words (transcription) to create cohesive and coherent texts.

Translating is the process of putting ideas into visible language. Translating has the same meaning as transcription, emphasizing the task's specific qualities. Rara and Kevin get some information related to topics they have read from several journals or articles and compile it into an outline that will be used as an essay.

> "Previously we have learned about step-by-step ee… how to make an effective article, **so we have learned how to outline**, learn…. **The way to outline is the correct vocab and the correct article**, so we also must adjust eee… which vocab we must choose, which is not too difficult, aaa… not too happy, not too easy, so it's easy for readers to understand." **(C/GT/RA/004)**

> "Before compiling essay writing into a sentence, **I started by making an outline from introduction, body paragraph then conclusion, after the outline was finished,**" **(P/O/KE/005)**

In the composing process, Rara and Kevin are taught by the same lecturer, and they are taught step-by-step outline making. Therefore, the way of preparation is also the same between Rara and Kevin; before they make an essay, they outline the introduction, body paragraph and conclusion, and they are also taught how to outline with the correct vocab and the appropriate article.

Reviewing is a time to evaluate essays, especially by examining and checking for errors. This is the last process in essay writing; the strategies used in this process are reading and editing. In this process, writers add, delete, replace, and transfer ideas and words as they rework and polish their essays.

In reading and editing strategies, Rara and Kevin carefully re-read and evaluate the content and organization of their essays and revise and edit their essays to make their essay more interesting and easier to understand by readers.

> "I mmm… **skimming and scanning my own essay**, where **I have to revise eee…the structure of the ee… sentence that I use and maybe there is no plagiarism that I made in the words, I have to also check the grammar,** and sometimes I also consult with the lecturer in essay writing." **(R/RE/RA/005)**

> "**I revised, I read it again**, ee… of course I read it again according to the topic that I chose and whether it was in accordance with the outline I had made, out of the box or in the box. **The second point, I tend to prefer to look for other journals and I only read it from introduction section or abstract section**." **(R/RE/KE/005)**

In the reviewing process, participants used reading and editing strategies to make their final essays more interesting and easier for readers to understand. For example, Rara and Kevin's participants revised their essays by re-reading the text, checking plagiarism and grammar, and even looking for other journals in the revision process.

The findings from the participants' interviews in retelling their experiences in process-based writing revealed that the navigation of the references is crucial in the planning stage. From those resources, Rara organizes her essay by drafting what to write in the introduction, body, and conclusion, while Kevin focuses on the literature review content in the journal articles to help him shape the ideas in his essay. Goal setting also helps both participants in setting direction and determining the audience of their writing.

In the composing stage, both participants implement a similar outlining approach. Rara has a more detailed approach to outlining because she did not only consider the outline but the structural details at the sentential level, such as choosing the more appropriate vocabulary to communicate her ideas. This also appears in her reading and editing strategies. Rara noticed the details in her grammatical accuracy and paraphrasing style, so her writing has a lower similarity index. At the same time, Kevin paid more attention to whether he had completed what to write in his outline and re-navigated himself to the references whenever necessary, particularly in the abstract section. The findings from two participants strengthen the second author's belief that in teaching process-based essay writing, the students need a balance of time management for their metacognitive awareness of generic structure, text structure, and language features before planning the essay.

DISCUSSION

In general, the results of the interview data obtained from the interviews show that the two participants used similar cognitive theory writing strategies when writing the final project of essay writing. However, each participant has their own experiences and challenges regarding essay writing. Rara and Kevin use cognitive theory-based writing strategies: Participants choose one of four interesting topics to discuss in their final essay writing project during the planning process. Then, after gathering relevant information, such as journal articles and journal articles, participants take notes and create an outline of the topic, filling in the important points of the sub-essay formats to organise their essays. This strategy is relevant to Nanik et al.'s (2019) finding that the subjects made a time calculation in their heads rather than writing it on paper and planned the time allocation of the writing process. Following the planning stage, participants put their ideas into visible language, with an activity transforming their ideas from linear into sentences. It entails putting ideas into language or text generation and transcribing them into written words to create cohesive and coherent texts.

Furthermore, according to participants, in the reviewing process, in order to make the essay writing final project better, **more** interesting, and easier to understand by the reader, participants skimmed and scanned their essay, where they had to revise and see, also checking plagiarism and grammatical error and conduct consultations with the lecturers of essay writing. This relates to Chien's (2012), assertion that revision is at the

heart of the writing process, as it is through revision that ideas emerge and evolve, and meanings are reshaped and defined. During their interviews, all of the high-achieving students in the study stated that they re-read and revised their essays at least once.

Writing, according to Rara's experience, is one of her healings because she enjoys writing about anything. She frequently writes diaries and short stories in addition to academic essays. The problem she faces when writing is that it is difficult for her to come up with brilliant ideas for the topic of her essay writing. Writing, she believes, is a masterpiece that is inscribed from our ideas and thoughts that are converted into writing, whether this writing is done with a pen or through typing. Meanwhile, Kevin's issue is laziness; he considers writing to be a very boring activity. This contrasts with Rara's attitude toward her essay writing experience. Kevin requires assistance from his surroundings, such as family and friends, to progress.

CONCLUSION

To conclude, the findings suggest that Rara and Kevin focus more on clearly stating their position during planning, generating more text, and revising and editing during the review process. This study describes that three cognitive strategies are applied in the planning process: generating ideas, organizing, and goal setting. Even though Rara and Kevin chose different topics, they used similar strategies for generating more references from journals, articles, and books related to the topic they chose. Rara and Kevin, on the other hand, use different cognitive strategies for organizing. Rara organized her writing using the outline, whereas Kevin used keywords to organize his writing. Participants in goal-setting strategies have different goals for essay writing, but they both agreed to consider their target readers when setting the goal of their writing. In the composing process, both participants create an introduction, body paragraph, and conclusion outline based on the final project of essay writing before making structured sentences. Finally, the reviewing process includes reading and editing strategies. In this strategy, participants Rara and Kevin revised their essays by re-reading the text, checking for plagiarism and grammar, and searching for other journals during the revision process. This study implied that when teaching process-based essay writing, a language teacher or lecturer should be aware of the different stages of the students' cognitive strategies, especially during the planning stage. Further investigations on how cognitive strategies can be applied to different learners' characteristics may enrich the perspective and

discussions on process-based approaches in writing. For lecturers or teachers who develop modules for process-based essay writing, the findings of the study also suggest developing tools for exercising the essay outline in generic structure, text types, and language features so that the students can manage their learning process in acquiring the new language input which is necessary for their grammatical accuracy.

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