

COGNITIVE MODELS OF WRITING OF STUDENTS TAUGHT BY TEXT-ORIENTED TEACHING AND RESEARCH

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ABSTRAK

Menulis adalah sebuah keahlian yang tidak mudah untuk dikuasai. Nunan (1999: 271) menjelaskan bahwa menulis adalah keahlian berbahasa yang paling sulit untuk dikuasai. Bersamaan dengan teori-teori pemerolehan bahasa kedua, keahlian berbahasa menulis telah dicoba untuk diajarkan dengan berbagai pendekatan, metode, dan strategi. Hyland (2008: 2) dalam artikelnya menyimpulkan bahwa secara garis besar pengajaran keahlian menulis dalam dapat dikelompokkan dalam tiga garis besar, diantaranya: (1) Pengajaran keahlian menulis yang berorientasi pada text, (2) Pengajaran keahlian menulis yang berorientasi pada penulis, dan (3) Pengajaran keahlian menulis yang berorientasi pada pembaca. Dan ketiga garis besar pengajaran keahlian menulis ini memiliki kelemahan dan kelebihan masing-masing. Pertanyaan yang mendasari penelitian ini adalah “bagaimana proses berpikir mahasiswa dalam menulis ketika dia diajar dengan metode pengajaran yang berorientasi pada teks?” Instrumen yang diterapkan dalam penelitian ini adalah (1) observasi, dan (2) interview. Sesuai dengan teori yang dikembangkan oleh Hayes and Flower (1983), proses berpikir dalam menulis dapat diukur dengan menganalisis tiga sub komponen, diantaranya (1) menemukan elemen – elemen mendasar dari tiap tahapan menulis, (2) menemukan variasi interaksi antar elemen, dan (3) menemukan pola/ model interaksinya. Berdasarkan proses analisis data yang diperoleh dari 4 subjek penelitian, dapat disimpulkan bahwa (1) elemen yang ada dalam tiap tahapan proses menulis adalah (a) target penulisan/ *Writing Assignment* yang terdiri dari topik tulisan dan motivasi menulis, (b) ketersediaan informasi pada penulis/ *External Storage*, (c) adanya proses perencanaan dan organisasi ide dalam proses menulis/ *Planning & Organization* yang didalamnya termasuk keahlian berbahasa (tata bahasa) penulis, dan (d) menerjemahkan isi pikiran dalam bentuk nyata tulisan/ *Translating process*. Kedua, proses analisis data juga mengklasifikasi dua pola atau model berpikir dalam menulis yang terjadi antara subjek dengan kemampuan menulis yang tinggi dan subjek dengan kemampuan menulis yang rendah, diantaranya: (a) subjek dengan kemampuan menulis yang tinggi menunjukkan model berpikir sebagai berikut: Perencanaan menulis – proses menerjemahkan ide pikiran dalam bentuk tulisan – karya tulis. (b) sementara subjek dengan kemampuan menulis yang rendah menunjukkan model berpikir sebagai berikut: Target penulisan (penugasan) – Proses menulis – Koreksi.

Kata Kunci: *Cognitive Model of Writing, Text- Oriented Teaching and Research*

INTRODUCTION

The acquisition of a language, whether it is a native or second language, presumes a process in which both receptive skills (listening and reading) and productive skills (speaking and writing)

intervene to affect and complete each other simultaneously. For sure, the objective of language acquisition, both for the native and second language, is the communicative competence, which is only can be succeeded by the collaboration and

integration of these four skills (listening, reading, speaking, and writing). Writing is not an instant skill nor can it be acquired easily. In fact, Nunan (1999: 271) said that writing is viewed as the most difficult thing to do in language. Unlike Speaking, which allows the user to exploit various devices such as body movement, gestures, facial expression, tone of voice, pitch, hesitation, and stress to facilitate the communication, this is not available in writing. In the same point Hedge (2005: 7) explained that a writer can't clarify nor revise or backtrack ideas where there is a miscommunication or misunderstanding between the writer and reader.

Directly to the point, beside considering some aspects which are seen important such as punctuation, vocabulary, and grammar, writing, in fact, is effective when it is not only dependent on a number of features which are not shared by those three points and also by spoken language, but also the context in which it will be interpreted said by Nunan (1999).

For decades assessing the writing process was an important case to be answered. The writing process can be assessed by evaluating the text as the writing product and also by evaluating the process of the writer in his/her cognitive while do the writing. Linda Flower and John R. Hayes have firstly confirmed the cognitive models of writing in 1983 and this issue was still remain to be discovered by the following years.

Along with the acquisition of the second language, the writing was taught in various ways or methods since a very long time ago to this current modern era. Hyland (2008: 2) in his article summed up the basic classification of teaching writing method in 3 (three) points (1) text-oriented research and teaching, (2) writer-oriented research and teaching, (3) reader-oriented research and teaching. Both those three basic classifications of teaching writing applied on the field have their own benefit and weaknesses suit to its context of students. In both of Writing II and Writing

III Class, lecturers conducted the teaching-learning activity with the text-oriented researching and teaching. The class conducted with a pattern of text types and students are asked to follow the pattern, which also included the free and individual writing activity. The initial question guided this research is how to improve the student's ability in writing by formerly describing the students current writing ability. Thus, this research was concerned to describe the cognitive models of writing of students taught by text-oriented research and teaching. The question lies in this research is 'how do students taught by text-oriented research and teaching cognitively modeled writing?' 'Due to the problem of the research, the objective of the research is to describe the cognitive model of writing by students taught by text-oriented research and teaching. This research is mapped in three scopes such as (1) the theory of Cognitive model of the writing of the Hayes and Flower Theory. This research hope significantly contributed to describing the cognitive model of writing by students taught by text-oriented research and teaching.

THEORETICAL REVIEW

The Definition of Writing

As a productive language skill, writing is a sustained complex cognitive process. It is sustained for someone should remaining reading as his effort to be a writer. In its collaborated of the vocabulary, grammar, and context, writing definitely called as a complex process. Writing, on the other hand, should be done by initially having the planning of what to be written, and this fact lead writing to be one of a cognitive process.

The Major Elements of Writing Processes

Writing processes conducted by its components or major elements which are processing ideas, words, translating and

revising. Cf. Corbett and Connors (1991) defined the major elements of Writing are:

1. Inventions (Methods for coming up with ideas to be used in a text or speech)
2. Arrangement (Methods for organizing one's content)
3. Style (Methods for expressing one's content effectively)
4. Memory (Methods for remembering what one intends to say), and
5. Delivery (Methods for actually presenting one's content effectively)

The Process of Writing

Standing by the side of the process of writing, White and Arndt (1991: 3) describe writing as a form of problem-solving which involves such processes as generating ideas, discovering a 'voice' with which to write, planning, goal-setting, monitoring and evaluating what is going to be written as well as what has been written and searching for language with which to express exact meaning. In 1980 Hayes and Flower attempted to classify the various activities that occur during the writing and their relationship to the task environment and to the internal knowledge state of the writer. Hayes and Flower posited that the writers' long – term memory has various types of knowledge, including knowledge of the topic, knowledge of the audience, and stored writing plans. In the task environment, Hayes and Flower distinguished the writing assignment (including the topic, audience,

and motivational elements) from the text produced so far. Hayes and Flower identified four major writing processes:

1. Planning; takes the writing assignment and long-term memory as input, which then produces a conceptual plan for the document as output. Planning includes sub-activities

of generating (coming up with ideas), organizing (arranging those ideas logically in one's head), and goal setting (determining what effects one wants to achieve and modifying one's generating and organizing activities to achieve local or global goals)

2. Translating; takes the conceptual plan for the document and produces text expressing the planned content.
3. In reviewing, the text produced so far is read, with modifications to improve it (revise) or correct errors (proofread)
4. Monitoring includes metacognitive processes that link and coordinate planning, translating, reviewing.

Models of Writing

The truth about different levels of writing proficiency, the extreme variations in the ability between students (and even between novice and expert writer) brought lots of articles about composition tried to parse the process of writing through different writing models. The stages of writing which are commonly started in planning and ended in publishing is the ideal pattern of how writing modeled. However, the reality of why for some occasions, a writer skips his planning and directly do the translation, or even why after the evaluation a writer could also recheck the planning, were some important questions to be answered.

What brings writers to choose to start their writing with various stages? Could it be related to the writers' language proficiency? Or, is it possible because of the familiar or non-familiarity of the text types? Why do writers do their writing with different stages of the writing process? Those questions could be answered with 'yes' but those are also

could be answered with 'no'. In fact, there are various models of writing made by writers. And those are because of their different cognitive models of writing, there is a cognitive model of writing.

Furthermore, Linda Flower and John R. Hayes (1981) stated that in order to build a "Writer" or a theoretical system that would reflect the process of a real writer, you would want to do at least three things:

1. First, you would need to define the major elements or sub-processes that make up the larger process of writing. Such sub-processes would include planning, retrieving information from long-term memory, reviewing, and so on.
2. Second, you would want to show how these various elements of the process interact in the total process of writing. For example, how is "knowledge" about the audience actually integrated into the moment to moment act of composing?
3. And finally, since a model is primarily a tool for thinking with, you would want your model to speak to critical questions in the discipline. It should help you see things you didn't see before.

As an addition, this Flower and Hayes explanation of how to extract the writer's cognitive process is theoretical mainly base this writing.

Cognitive Model of Writing

There are two themes have dominated the psychological theories about the cognitive processes involved in writing since their inception in the early eighties; the first is the basic insight that writing is not simply a matter of translating preconceived ideas into text but also involves creating content and tailoring the way this is presented to the needs of the reader (David Galbraith; 2009). Here, David supports the definition of writing

cognitive processes of Flower and Hayes (1980a) which is said that writing is as much a matter of discovering or inventing the thought to be expressed in the text as it is a matter of expressing it in an appropriate and convincing way. The second theme has dominated the writing psychological theories is because writing involves a complex interaction between a wide range of different processes, it places extremely high demands on the limited capacity of working memory (David Galbraith; 2009), in order to avoid cognitive overload, writers have to develop effective strategies for managing the writing process (Flower and Hayes 1980b).

The following explanation of the cognitive model of writing is a report of the cognitive model in the beginning, in the middle ear, and as it is the current model that has been revised and evaluated. Many experts of cognitive processes, especially related to language, will show up here. Most of the explanation here is comprehended from the report of Anne Becker (2007) who writes a 'review of writing model research based on cognitive processes'.

The Teaching of Writing

The following explanation about the teaching of writing was abundantly taken from Ken Hyland theory of teaching and researching writing as he has few books and articles to the related area; the teaching and researching writing.

Ken Hyland in his article in January 2008 entitled 'writing theories and writing pedagogies offer a brief survey of frameworks and explore the main approaches to the teaching and researching writing. He breaks them into three main aspects of writing, such as:

1. The first approach concentrates on texts as the products of writing

2. The second focuses on the writer and the processes used to create texts
3. The third approach directs learners to the role that readers play in writing and how they need to think about an audience in creating texts.

Text-oriented research and teaching

Text-oriented approaches consider writing as an outcome, a product, a noun rather than a verb, viewing writing as the words on page or screen. Here, the text is seen either as objects or as discourse.

Text as objects

The understanding lies behind the text as objects are seeing learning writing as the main matter of knowing grammar. This view sees texts as the arrangements of words, clauses, and sentences, and those who use it in the classroom believe that students can be taught to say exactly what they mean by learning how to put these together effectively. Seeing the text as an object lead the classroom activity to emphasize the language structures, and for this approach, Hyland (2003) shows the four stages, such as:

1. Familiarization: learners study a text to understand its grammar and vocabulary
2. Controlled writing: then they manipulate fixed patterns, often from substitution tables
3. Guided writing: then they imitate model texts-usually filling in gaps, completing texts, creating topic sentences, or writing parallel texts.
4. Free writing: learners use the patterns they have developed to write an essay, letter, etc.

The stages shown above explain that text as an object in the teaching of writing starts by the text as an instrument of teaching, the students are asked to read the text learn the grammar and the

vocabulary. Further, the teacher guides the students to imitate the model of the text and finally, the teacher let the learners use the patterns they have comprehended and developed their own essays in their free writing as the final stage.

Text as Discourse

The second perspective is seeing the text as a discourse, this perspective sat on a principal of language used to communicate and to achieve purposes in particular situations. The writer with text as discourse seeks to identify how texts actually work as communication regarding forms of language as located in social action.

The key ideas of teaching writing with text as discourse are majoring genres (text types) as the main material in the teaching-learning activity. Genres as the center of the writing teaching-learning activity divided into (1) whether the genres are factual or non-factual, (2) the genres generic structure, (3) the genres' language features, and (4) the genres' social purposes.

Text as a discourse in the writing teaching-learning activity guided students to understand writing by showing the pattern of texts; various text one by one, lead the students to master each text by its generic structure and language features, and finally ask the students to complete the blank pattern of a text and at last ask the students to do free writing by choosing one of text to be built.

Writer-Oriented Teaching and Research

The central point of the writing-oriented teaching approach presumes teachers to focus on the students' ideas development in building text. There is a significant difference exist between the students with English native speakers to the students with English as their second language.

Students with English as their second language presumably avoid the

same process of writing with the students with English as their mother tongue because of the lack understanding of the second language's cultures, and cultures contributed much more than what we can imagine to context, and context is the world of text or discourse.

Various stages of writing between English native speaker students to the English second language students exist, the following is a chart of how commonly writing proceed and how students show their individual difference happened:

Writing is about discovering and formulating ideas as we create personal meaning. The flow chart shows us:

1. Writers have goals and plan extensively
2. Writing is constantly revised, often even before any text has been produced
3. Planning, drafting, revising, and editing are recursive and potentially simultaneous
4. Plans and text are constantly evaluated by the writer in a feedback loop

Reader-Oriented Research and Teaching

The reader-oriented view of writing emphasizes the interaction between writers and readers; the process of writing involves creating a text that the writer assumes the reader will recognize and expect and the process of reading involves drawing on assumptions about what the writer is trying to do.

The reader-oriented view bases the writer understanding about what the reader does expect to read. This view objected a cultural-context sustained knowledge of the target language in the writer, for some reasons this is the main factors of why a student of English as their

second language felt difficult in writing because of what counts as evidence, irony, conciseness, and coherence, are likely to differ across cultures. Some cultures favor the deductive approach, getting to the point eventually; some are more formal than others, some more impersonal.

To overcome these difficulties, Hyland (2009) listed some suggestion about English as it is compared to many other languages:

1. Be more explicit about structure and purposes (previewing and reviewing constantly)
2. Employ more, and more recent, citations
3. Use fewer rhetorical questions
4. Be less tolerant of digressions
5. Be more cautious in making claims (hedges dominate a lot of academic writing)
6. Use more sentence connectors (such as therefore and however)

One reason given for this is that English is said to make the writer rather than the reader responsible for clarity (Clyne, 1987). This contrasts with some traditions of writing such as German, Korean, Finnish and Chinese where the reader is expected to dig out the meaning and the writer compliments the reader by not spelling everything out. But in English, it is the writer who must set things out so they can be easily understood.

The Relationship between Cognitive Models of Writing and Text-Oriented Research and Teaching

The writing process is defined as a cognitive-collaborative process between the process of planning, translating, monitoring, and memory. It is commonly known that writing problems arise from the writer's attempt to map language onto his or her own thoughts and feelings as well as the expectations of the reader. For it is a complex-sustained skill, writing as a

cognitive process place a great position in formal teaching agenda.

Many efforts simulated to overcome the problems of writing an informal teaching agenda. Some methods and approaches had been tested. Furthermore, the pattern and grammar case of writing has also been applied to overcome the difficulties of writing for the beginner, skilled, novice, and expert writers.

However, to record the development and as a problem-solving of writing difficulties, some experts such as Flower and Hayes (1980), Bereiter and Scardamalia (1991), Kellogs (1984), David Galbraith (2009) and some other linguistics experts been participated to produce models of writing processes, especially the Cognitive of it.

In practice the models of the writing process, the experts are hand in hand contributed to each part such the major elements of the writing process: invention, arrangement, style, memory, and delivery. Furthermore, there also a list of processes that are collaborated in the process of writing such as planning, translating, revising, monitoring, and long-term memory (flower and Hayes: 1981).

On the other hand, as an agenda informal learning, the writing was seen as a serious material to be taught. Ken Hyland (2008) defined three approaches in teaching and researching writing; (1) text-oriented research and teaching, (2) writer-oriented research and teaching, and (3) reader-oriented research and teaching.

For English as a foreign or second language, teaching writing commonly started with the teaching of text types and grammar (sentence structure). Teachers with a student whose English is not their first language commonly applied text-oriented research and teaching. Text-oriented research and teaching are

effectively let the students imitate the essay structure and sentence structure. Students with this approach in class will get the benefit of text types by imitating the pattern and grammar by memorizing the structure.

Comparing to the models of the writing process, the existence of text types understanding and grammatical case placed specifically in the part of long-term memory as a writing skills material for Flower and Hayes models, and also in the content knowledge for Bereiter and Scardamalia models of writing.

Thus, cognitive models of writing as a way to find a problem solving of writing difficulties truly connected with any approach or method of teaching writing informal way since cognitive models of writing has collaborated some major elements of writing process; and in this way long-term memory and content knowledge are elements which are directly affected by any method or approach of teaching writing including the text-oriented research and teaching.

RESEARCH DESIGN

Research Method

This research analyses the process of writing cognitively. The goal of this research is to describe the students' writing processes based on the theory of Flower and Hayes 1987. Since this research is focused on the processor process oriented and it is a subjective goal to the writing processes designed so that this research is Qualitative research is designed.

This research is also a writer of the report, describing the students writing processes cognitively. For this reason, this research is also could name as descriptive research. In conclusion, for this research is focus to analyze a process and subjective phenomena, and as this research is written in a report, describing the writing

processes, this research is a Descriptive

Qualitative Research.

Dealing with this condition, this research has designed the subjects who are the source of the data for this research;

The Subject of the Research

This research concerned with the cognitive model processes of writing.

No	Subject of	Writing Ability (based on score)	Text types familiarization
1	S1	High	F: Narrative UF: Discussion
2	S2	High	F: Recount UF: Analytical Expository
3	S3	Low	F: Discussion UF: Procedure
4	S4	Low	F: Descriptive UF: Hortatory Expository

F: Familiar

UF: Unfamiliar

The Instrument of The Research

The instrument will be administered in this research are observation and Interview, an open interview. Firstly, observation will be administered to seek the students writing. Students are tasked to write two passages; one passage with a familiar topic and structure (text type) and the second is a familiar topic with unfamiliar structure (text type). The open interview is an interview that allows the interviewee answers the question naturally, without any leading from the interviewer. In this research, the interviewee will be asked to explain the process of how they could write the writing.

The Procedure of Data Collection

The following are the procedure the researcher designed in collecting the data:

First of all, the data collecting is designed to be done on 13-14 September 2018 with detail schedule in this way:

No	Date	Subject	Instrument	Data
1	13 th September	S1	Observation	Passage: Familiar Text Type
2		S2	Observation	Passage: Familiar Text Type

3	2018	S3	Observation	Passage: Familiar Text Type
4		S4	Observation	Passage: Familiar Text Type
5	13 th September 2018	S1	Interview	Interview Script
6		S2	Interview	Interview Script
7		S3	Interview	Interview Script
8		S4	Interview	Interview Script
9	14 September 2018	S1	Observation	Passage: Unfamiliar Text Type
10		S2	Observation	Passage: Unfamiliar Text Type
11		S3	Observation	Passage: Unfamiliar Text Type
12		S4	Observation	Passage: Unfamiliar Text Type
13	14 September 2018	S1	Interview	Interview Script
14		S2	Interview	Interview Script
15		S3	Interview	Interview Script
16		S4	Interview	Interview Script

The procedure of data collection is:

1. The subject of the research are pleased to write a passage with the familiar text type
2. Subjects are questioned orally (interview) about how do they come to the development of the idea as they write
3. The subjects are pleased again to write a passage with the Unfamiliar text type
4. Subjects are question orally (interview) about how do they come to the development of the idea as they write.

Data Analysis

Louis Cohen (2007: 461) defined that qualitative data analysis involves organizing, accounting for and explaining the data; in short, making sense of data in terms of the participants' definitions of the situation, noting patterns, themes, categories, and regularities.

Furthermore, Louis Cohen also defined the factors which influence the data analysis in qualitative research as follows 'the analysis will also be influenced by the number of data sets and people from whom

data have been collected. Qualitative data often focus on smaller numbers of people than quantitative data, yet the data tend to be detailed and rich. Researchers will need to decide, for example, whether to present data individually by individual and then, if desired, to

Amalgamate key issues emerging across the individuals, or whether to proceed by working within a largely predetermined analytical frame of issues that crosses the individuals concerned.'

RESEARCH RESULT

In order to build a "Writer" or a theoretical system that would reflect the process of a real writer, you would want to do at least three things:

1. First, you would need to define the major elements or sub-processes that make up the larger process of writing. Such sub-processes would include planning, retrieving information from long-term memory, reviewing, and so on.
2. Second, you would want to show how these various elements of the

process interact in the total process of writing. For example, how is “knowledge” about the audience actually integrated into the moment to moment act of composing?

3. And finally, since a model is primarily a tool for thinking with, you would want your model to speak to a critical question in the discipline. It should help you see things you didn't see before.

The explanation of Flower and Hayes above guide this data and data analysis into the following steps of presentation:

1. There will be an analysis of writing element or sub-process which lead the writing processes. There was some classification of major elements of the writing process, Flower and Hayes define the major element of writing into such as planning, long-term memory, translation, etc. However, Kellogg defines the major element of writing into such as Planning, translating, programming, executing, reading, and editing. And there was still some other explanation about the writing component.
2. There will be an analysis of the interaction of each major element of the writing process
3. There will be an analysis of the model of the writing process itself.

Due to the points of analysis targeted, during the data collection, here are four questions administered in the interview session:

1. How do you come to this topic?
2. How do you write this Essay?
3. What are the difficulties that you have during writing this essay?

Which one is the most difficult for you?

How do you overcome it?

After the analysis proceeds, it was found that both of expert of average students express these elements of writing (1) task environment (topic, motivating cues), (2) planning (organizing and goal setting), (3) Translating process.

Furthermore, the model interpreted was as follows:

- (1) for expert writing they mostly started by goal setting and organizing – Translating processes – text producing.
- (2) While the average students express the model as topic/ motivating cues – text producing – translating.

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