WRITING STYLE AND STRATEGY DIFFERENCES

AMONG SIX COLLEGE STUDENTS OF

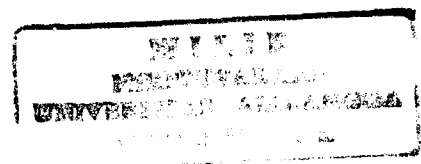# LEFT-BRAIN AND RIGHT-BRAIN DOMINANTS

A THESIS

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ENGLISH DEPARTMENT

FACULTY OF LETTERS

AIRLANGGA UNIVERSITY

SURABAYA

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Submitted as Partial Fulfilment of the Requirement For the
Sarjana Degree of English Department, Faculty of Letters
Airlangga University Surabaya

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DECLARATION

This thesis contains no material which has been accepted for the award of any other degree or diploma in any university. And to the best of this candidate's knowledge and belief, it contains no material previously published except where due reference is made in the text of the thesis.

Signed

Entusiastik

I dedicate this thesis

to Allah SWT,

and to every single step and breath in

seeking the meaning of life

Approved to be examined

Surabaya, June 26, 2006

Thesis Advisor

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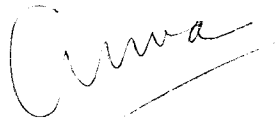
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This thesis has been approved to be examined and accepted by the Board of Examiners at English Department, Faculty of Letters, Airlangga University on July 18, 2006.

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ABSTRACT

Entusiastik. Writing Style and Strategy Differences among Six College Students of Left-Brain and Right-Brain Dominants. A thesis submitted as partial fulfillment of the requirements for the sarjana degree of the English Department, Faculty of Letters Airlangga University, 2006.

This study aimed at analyzing the writing style and strategy used by left-brain dominant and right brain dominant college students. The subjects were six college students who were chosen for their different brain dominance –determined by "**Cognitive Style Test**". First, they were asked to write based on a given topic, and second, they were requested to fill in questionnaire in which they told their writing process and strategy. The result of the study showed that generally, in terms of writing style, both groups preferred using simple sentence type and active voice. Further, the result showed that the right-brain dominants use modifier more than the left-brain dominants and the left-brain dominants excelled the right-brain dominants in their spelling. Regarding their writing strategy, both groups generally applied similar strategy during the writing process. The differences came from their attitude toward grammar and the stops in the flow of writing. The left-brain dominants focus on grammar more, but they also experienced stops more than the right-brain dominants.

Key words: left-brain dominant, right-brain dominant, writing style, writing strategy.

CHAPTER I

INTRODUCTION
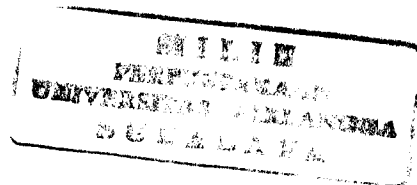
1. 1   Background of the Study

The ideas that human brain consists of two hemispheres –the left and the right hemisphere- which was then known as the theory of brain lateralization started with the study of Roger Sperry in 1950 (Solso, 2001) which aimed to determine the different functions associated with each hemisphere. Each hemisphere of the brain was, in fact, found to have different specialization. The left hemisphere controls movement and sensation on the right side of the body while the right side hemisphere is linked to the left side. The left hemisphere in most individual is associated with analytic processing and symbolization while the right hemisphere with the perceptual and spatial representation (Steinberg, 2001).

Further, the research showed that each hemisphere consists of four parts or lobes –the frontal, temporal, parietal, and occipital- with their own functions (Steinberg, 2001). The frontal lobe determines personality, emotions and involved in controlling judgment, sexual behavior, language and movement. The temporal lobe controls hearing, the ability to recognize words and also affects memory. The parietal lobe helps us to understand what they see and feel, controls how they understand and process information about the environment, such as distance and position of objects. Last, the occipital lobe is the visual center.

distance and position of objects. Last, the occipital lobe is the visual center.

The fact that the left brain and the right brain have their own specification and function has lead to a phenomenon that each person has different preference in the work of the two brains. Some people have their left brain dominates the right brain or the other way around. The phenomenon where one hemisphere is the controlling one is called "hemispheric dominance" (Steinberg, 2001). As brain is human's central of nerve system, its work is somewhat influence the way we think and act. People who are more left-brained, in accordance with the left brain typical, have a good self disciplines, and time-oriented while right-brained people are more intuitive and flexible.

Many researches have been conducted to uncover the localization of language in the brain. It was then found that there were several areas in the brain that became the central of language processing. The two areas among them are known as the Broca's area which is located in a certain are of the cortex and is responsible for language production -producing speech and written language- and the Wernicke's area which is responsible for language comprehension -understanding speech and written language (Field, 2003).

Concerning the language skills, these both hemispheres actually have different functions as it was found that for most people the left brain is more specialized in the language processing (Steinberg, 2001). The

early knowledge about this specialized function of the brain can be traced to the early 1860's from the work of Pierre Paul Broca who studied aphasia –a language disorder in which the patient has difficulty in speaking. The fact that the damage to the right frontal lobe in precisely same location had no effect on language ability was really surprising. Soon additional evidence that the left hemisphere is the brain that is considered more verbal than the right brain began to pile up. However, according to a theory by Lenneberg (Field, 2003) in infancy, the relationship between two parts of the brain is flexible enough for language to relocate itself on the right when necessary.

Specific to the left and right brain function in language and memory functions, according to Zimbardo (1993), the left brain excels the right brain in terms of controlling spontaneous speaking and writing, replying to complex commands, recognizing words, and controlling of words and numbers. In the other side, the right brain is good in making repetitive but not spontaneous utterances, responding to simple commands, recognizing faces. Further, the two hemispheres have different function correspond to writing process. The left hemisphere focuses more on the grammar and composing sequences process, while the right brain focuses on the creative process.

By looking at the two hemispheres' characteristics, specifically in the writing process, the writer was interested to analyze the writing process of students' with different brain dominance. The writer choose the

writing process as the object to analyze because writing is somewhat an activity that involves more than just a technical aspect such as the way to put together words into sentences by considering the rules of writing, but also one capability in generating idea and transforming the idea into words as well as organizing them in a comprehensible text. Writing is a representation of human thinking pattern. Writing seen as one of a cognitive activity involves at least three cognitive processes –memory, language processing, and thinking (Zimbardo, 1993).

The present study is based on the phenomena that first, the two hemispheres have different function and specialization, especially in the writing process and second, people have different hemispheric dominance. In doing so, the writer is interested to investigate whether there are also some significant differences in terms of writing strategy and writing style between the both group -the left and right brain dominants- when they are engaged in the English writing task. In this task, the participants are asked to write a composition which means that they are engaged in the writing processes -pre-writing, writing, and revising.

1.2   Statement of the Problem

Based on the background above, the writer would like to find out 'What are the differences between the left-brain dominant college student and the right-brain dominant college student in their English writing strategy and style?'

1.5 Definition of Some Key Terms

- *Left-brain dominant*: a person who has his left brain as the controlling brain or more dominant than the right brain.

- *Right hemisphere*: a person who has his right brain as the controlling brain or more dominant than the left brain

- *Writing style*: one of the principles of writing which is a process of making choices about sentence structure and diction during the act of writing (D'Angelo, 1980).

- *Writing strategy*: the steps taken during making writing composition/writing process (Axelrod and Cooper, 1988). The writing strategy is done to tackle any writing situation, starting from how to generates the idea, to explore and develops it until the whole writing process is finished.

CHAPTER II

LITERATURE REVIEW

2.1   Review of Related Studies

One research has been conducted by Imtiaz (2002) to explore the strategies used by second and foreign language learners of English. He compares 48 subjects taken up in this study which were equally divided into two groups - ESL and EFL. The analysis of the data reveals both similarities and differences in the use of strategies employed by the ESL and the EFL learners in writing. Language problem and lack of confidence have been considered to be the reason for a sudden stop in the flow of writing. Most of the ESL and EFL writers totally ignore the invention technique in the prewriting stage of the writing process either because they underestimate the importance of preparation or because they simply do not know how to plan to write.

A research to study the writing process has been conducted by Kellogg in 1994 known as the "three-task method" that provides a tool for investigating the time course of processes involved in writing (planning, translating, and reviewing). This method enables researchers to investigate cognitive effort allocated to each of writing processes. In that method, participants were instructed to engage in a writing task (the Main Task). In parallel, they had two other tasks. First, participants must respond as

quickly as possible to a sound probe (the Reaction Time Task). Second, after responding to a probe, participants must indicate what they thought they were doing at the sound of the probe (The Retrospection Task).

This study was then further investigated by Pélissier & Piolat (1999) who questioned the method used in Kelloggs' Three-task Method where the participant in the study could only categorize one writing process in one time. While the possibility that more than one writing process could happen simultaneously, for example while reviewing what one has written, a writer can, at the same time, plans a new idea to be written next. The result of the study showed strong consistency with Kelloggs' result in terms of time processing and associated cognitive effort between the two experimental conditions. Another result from this study was that the most frequent pair of processes during the overall writing processes associated by the participants is Translating and Executing, followed by Evaluating and Revising.

Another research was conducted by Kobayashi and Rinert (1992) that investigate the type of Japanese University students' cognitive activity in their second language (English) essay writing. The students were asked to compose essays in two different ways: writing in Japanese and translating it into English and writing directly in English. The result showed the translation was rated higher (in terms of the content and style) than were the direct essays. Another result showed that the writing strategy that was preferred was writing in their first language first then

translating it to the second language. This may be caused they feel more confident to write in their first language which they master more than English.

2.2 Review of Related Theories.

2.2.1 Theory on Brain Lateralization

There are some theories on brain lateralization. The term lateralization refers to certain different function that are assigned to the left or the right brain. According to Eric Lenneberg and others (Brown, 2000) lateralization is a slow process that begins around the age of two and is completed around puberty. During this time, child is neurogically assigning function little by little to one side of the brain or the other, included in these function, is language. To be more specific on how the brain is lateralized for its function in language processing, there was another theory on brain lateralization that put more focus on the fact that many specialized language functions are strongly lateralized to the left brain and later led to a theory suggesting that lateralization might have been a precondition for language evolution. According to this theory lateralization is almost certainly an effect of language development in individual's lifetime.

A specific distinction between the left and the right brain is provided by Brown (2000) as follows:

Left-Brain Dominance	Right-Brain Dominance
Intellectual	Intuitive
Remember names	Remember faces
Responds to verbal instructions and explanations	Responds to demonstrated, illustrated, or symbolic instructions
Experiments systematically and with control	Experiments randomly and with less restraint
Makes objective judgments	Makes subjective judgments
Planned and structured	Fluid and spontaneous
Analytic reader	Synthesizing reader
Reliance on language in thinking and remembering	Reliance on images in thinking and remembering
Prefers multiple-choice tests	Prefers open-ended questions
Controls feelings	More free with feelings
Rarely uses metaphors	Frequently uses metaphors

Table 2.1 Left and right brain dominance specification

Another theory was proposed by Stomlin (2000) that distinguish the function of the two brains stated that in terms of processing, the left brain process information linearly –from part to whole- and sequentially – from first to last based on logic and reality to solve problem. Thus, the left brain focuses on rules and regulation. Furthermore, the left brain deals more with symbolic processing meaning that it is good in recognizing symbols –as letters, words, mathematical symbols, and process thoughts and ideas with words. The right brain, in the other side, process

information from whole to part randomly based more on feeling and intuition. It is called non-verbal as it process images, perception, color; consequently, it sometimes has trouble in expressing thoughts with the right words. While the left brain tends to adjust to its environment, The fantasy-oriented right-brain will try to change the environment and make s its own rules.

Despite their different function, the both hemisphere do coordinate one another. Although the left brain is said to be more lateralized to language that doesn't mean that the right brain is a non language hemisphere. The right brain is critically and intimately involved in language processing at many levels during both development and maturity. It is critical for the large-scale, semantic processing of language, process the prosodic feature (rhythmic and pitch to convey emotional tone). The damage on the right brain affects such abilities as story and jokes comprehension.

2.2.2 Theory on Writing Process

According to Rivers (in Rahayu, 2004), writing is the act of putting down conventional graphic form something that has been spoken. When we are in the process of writing, we need to store strings of words in a kind of buffer in the mind: it's impossible to write without some kind of forward planning. A Three-stage model of writing (Field, 2003) used

terminology proposed by Brown, McDonald, Brown and Carr and draws upon a paper by Ronald Kellogg (1994) can be described as:

Formulation ⟨ planning

Translating

Execution ⟨ programming

Executing

Monitoring ⟨ reading

Editing
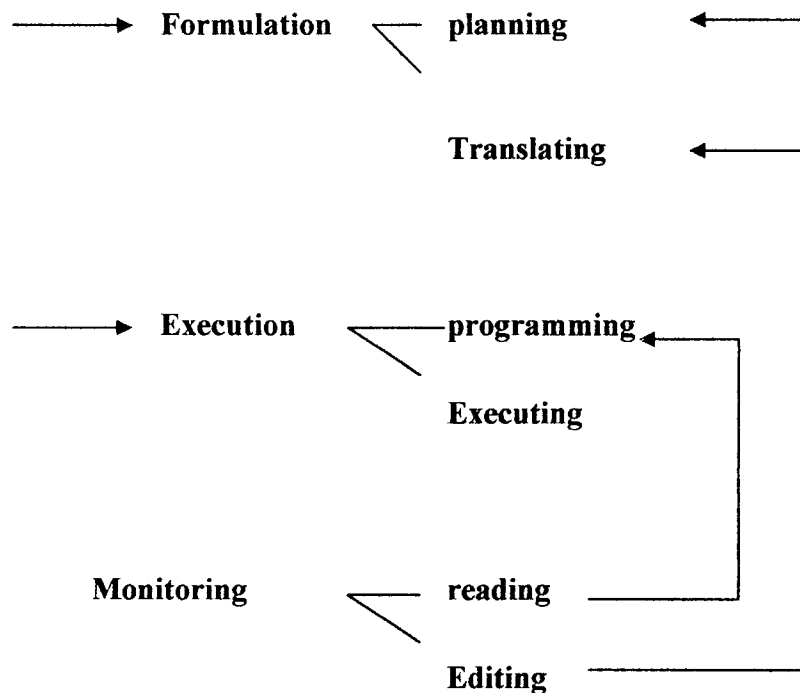
Fig. 2.1 The Three-stage model of writing by Ronald Kellogg

Planning involves getting goals, thinking of ideas to represent and organizing these ideas so they are coherently structured. Translating is a process to transform these abstract concepts into linguistic form by selecting appropriate vocabulary and syntactic structure. A buffer is needed to store the products of translating. Programming and executing convert the phonological code of the buffer into motor instruction to the appropriate muscles, carry out those instructions. Executing process involves the time when writer put the abstract linguistic form down on the

paper to form the concrete transcription. Monitoring is a further mark of skill. A good writer doesn't simply produce a text but reviews it both while and after writing. Reading may lead to revisions to the form of the text (e.g. spelling and punctuation corrections). Editing involves rethinking decisions made at the formulation stage.

Still refers to Rivers theory, during the writing process, students are going to face three problems. First, the psychological problem that regards writing as an essentially solitary activity and the act that students are required to write on their own, without the possibility of interaction or the benefit of feedback. Second, the linguistic problem that requires students to keep the channel of communication open through their own efforts and to ensure, both through their choice of sentence structure and by the way their sentence area linked together and sequenced, that the text they produce can be interpreted on its own. Third, cognitive problem that show writing is learned through a process of instruction. Students have to master the written form of language and to learn how to organize their ideas in such a way that the reader who is not present and known can understand these ideas.

One influential model of writing process was proposed by Hayes and Flower in 1980 (Weigle, 2002). This model –as can be seen in figure 2.2- described the writing process in terms of the task environment which included the writing assignment and the text produced, the writer's long term memory, including knowledge of topic, knowledge of audience and

stored writing plans, and a number of cognitive process, including planning, translating thought into context and revising.

In 1996, Hayes updated the Hayes-Flower writing model and sees the writing process as consisting of two main parts: The task environment and the individual. The task environment can be divided into the social environment (audience for one's writing) and the physical environment (the text written, the composing medium –e.g. hand writing or word processing). The central focus of the model is the individual rather than the task environment. Individual aspects of writing involve interactions among four components: working memory, motivation, and affect, cognitive processes, and long-term memory. Hayes' model recognizes the important roles of motivation in writing (e.g. a writer's goal, predisposition, beliefs, and attitude). The cognitive processes in Hayes model include text interpretation, reflection, and text production. Text interpretation includes listening, reading, and scanning graphics. Reflection is the process by which new internal representations are created from existing internal representations. In text production, new linguistic or graphic output is produced from internal representations.
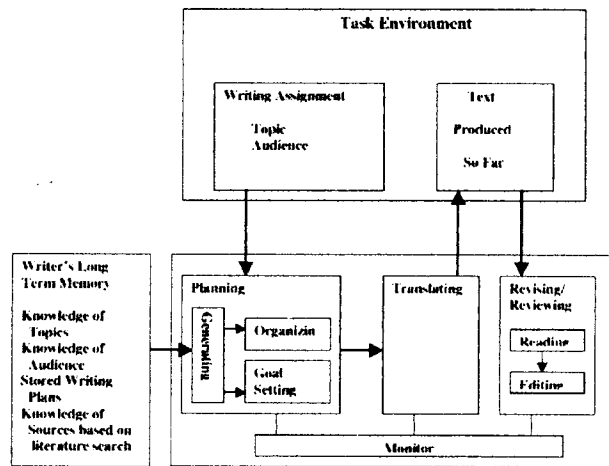
Fig. 2.2 Hayes and Flower Writing Model Process

2.2.3 Left brain and Right Brain Different Function in Writing

The two hemispheres, as mentioned before, play different role in the language processing, and in this study the writer will focus on the different function in the writing process. In fact, the function still related to the left and right brain general function. According to Stomlin (2000) the different functions of the two hemispheres are first, the left brain is responsible for sequences. The left brain keeps written of rules that govern meaningful word order in sentences so that the sentence produced will be grammatically correct and understandably. In order to be understandable, a written text regardless if it just talk about our own experiences in life or it is academic writing, must be written in logical sequences. The left brain helps to make this possible.

The left brain is also responsible for the memory of details and access to those details. The relationship of this ability to writing is almost

self-evident. As, in fact, we have to know what we are writing or talking about. Last, the left brain is responsible for conformity. Writing as communication depends on some arbitrary rules which we all agree to follow in order to be understood. Those rules including verb tenses, where commas, periods and capitals go, how quotations are used, and so forth. The rules of writing are the concern of the left brain. The parts of the writing process which make most use of the left brain are: revising and editing.

The right brain is responsible for perceiving and creating relationships during the thinking process. It means that the right brain is trying to make the writing make sense or meaningful. The right brain is necessary in the writing process because it organize the way people think. The second role of the right brain is responsible for originality. Although world to live in just the same, but different experiences make different contents in minds. What makes communications differs to each others is the way one put together universal experience in a unique way. The right brain helps us to write our idea in a different way from others. Last, the right brain is responsible for creativity because creativity is an expression of a unique approach to the world. The right brain helps to make original and creative writing.

Distinction function of the left and right brain in writing is:

Left Brain in Writing	Right Brain in writing
Outlining	Generating Ideas
Organizing	First draft
Editing and Analyzing	Combining

From the distinction found in the writing process, the right brain helps to begin the writing by generating ideas and producing creative writing while the left brain helps to make a good writing by considering the rules of writing and also to finish what has been written by editing it.

2.3   Theoretical framework

2.3.1   Writing Strategy

Writing Strategy refers to the steps taken before, during, and after making writing composition/writing process. Strategy used for the pre-writing activity including thinking about the topic and exploring ideas for writing. There are five basic resources for exploring ideas for writing which are: *recalling, observing, reading, conversing, and imagining* (Axelrod & Cooper, 1998). Besides thinking process, another pre-writing strategy is planning. This process can be done formally which is by making written plan according to some techniques such as: *clustering* (an invention activity which reveals possible relation among facts and ideas to find subtopics in a topic and to organize ideas); *listing* (strategy used to

recall what the writer already know about the topic and suggests what is needed to find out more about; and *outlining* (both way of planning and a means of inventing

The next strategy after writing usually refers to revision. Revision means seeing again what have been written. Revision may take place at any time while writing or after finishing it. Revising may lead to editing which is replacing inappropriate word choice, misspelled words, or unstructured sentences.

3.3.2 Writing Style

Style is a particular set of characteristics in the use of language. Writing style is one of the principles of writing –besides invention and arrangement- that can be defined as a process of making choices about sentence style and diction while in the act of writing. From the definition, writers' writing style can be analyzed from the two aspects: the word choices and the sentence style which include sentence length, and sentence type (D'Angelo, 1980).

a. Word Choice

Every writer has his own style in writing. There is no single parameter to asses the best style, as the style may differ depending on the purpose and

the context of the writing itself. As the parameter is so complex, word choice of one's writing can be analyzed from aspects below:

- **The use of Metaphor** which is a comparison between two things, based on resemblance or similarity, without using "like" or "as". Metaphor creates new meanings; they help to write about feelings, thoughts, things, experiences, etc. For example: Look at those *lamps in the sky*. (The italic phrase is the metaphor for 'star').

- **The use of concrete words** which refers to the actual and specific things such as ball, sky, cat, etc **and abstract words** which refers to qualities (for example hot, cold, good), relationships (for example existence, order), and idea (for example judgment, beauty.

- **The use of doublespeak** which is the use of language to obscure the truth. Some techniques in doublespeak are the use of jargon, meaningless abstraction, euphemisms, slogan, clichés, and slogan. Some words that signify the use of doublespeak are: amazing, sensational, bold, and proud.

- **The use of Modifier.**
  Modifier is a group of words that describes, limits, or qualifies another word / word group in a sentence. Modifiers can show

readers the size, color, and shape of a thing or the way an action is performed. Some types of common modifiers are:

a. Adjective modifies noun.

   Example: *Complex* problems require *careful* study.

b. Adjective phrases which is phrases begin with preposition – a word like with, under, by, in, of, at.

   Example: The city was *in debt.*

c. Participle: The use of past participle function as an adjective.

   Example: He tried to fix the *broken* fire engine.

d. Restricted modifier: one word that limit the meaning of another word or a group of words, for example: almost, only, nearly, even, etc.

e. Comparative for example: better, older, longer, more important and Superlative for example: best, oldest, the most important, etc.

Regarding that there are too many aspects that can be used to analyze the word choice, the writer determined to limit the analysis of the study by only analyzing the use of modifier in the participants' sentences.

b. **Sentence Type**

According to its' basic sentence patterns, there are three types of sentences which are the simple sentence, the complex sentence, and the compound sentence.

1. **The simple sentence**

A simple sentence contains a single subject (which may consist of more than one noun) and more than one verb.

For examples:

Birds sing. (S + V)
Birds sing beautifully. (S+V+Adverb)
Birds sing beautifully and build a nest (S+V+Adverb+V+Noun)

2. **The Compound Sentence**

The compound sentence consists of two related simple sentences that are joined together. The compound sentence consists of two clauses which shares same important ideas. This means that this type of sentence has two main subjects and two main verbs. If a transition is needed the two clauses are connected by a coordinating conjunction, as italicized in the following examples:

Women love diamond *for* its elegance.
I love reading psychology magazines, *while* my sister enjoys reading novels.

3. Complex Sentence

A complex sentence consists of an independent clause and one or more dependent clause. The complex sentence ranks a major and a minor idea. The major idea appears in the independent clause; the minor idea appears in the dependent clause. A dependent clause is always a fragment and cannot stand alone.

For example:

Fragment (minor / incomplete idea): who wears blue sweater.

Sentence (major/complete idea): The man *who wears blue sweater* is my cousin.

According to the verb voice, sentences can be divided into two:

1. Active Voice

This type of sentence is indicated by its Subject –which can be someone or something- doing / performing act or deed.

For example: Mary eats the cookies.

2. Passive Voice

In this type of sentence, the Subject receives the action.

For example: The cookies were eaten by Mary.

The emphasis in both sentences is differently showed by the subject chosen. In the active voice, the emphasis is Mary, but in the passive voice, the emphasis is the cookies.

CHAPTER III

METHOD OF THE STUDY

3.1   Research Approach

The study is used qualitative method because the result of the study provides comparative description the differences found in English writing composed by two different groups of college students who belong to left-brain dominant and right-brain dominant group. Furthermore, the case study approach was used in this research as the case study is appropriate for a research in which the phenomenon being observed is so complex that a variety of different kinds of data is needed in order to gain the full picture. Thus, the data is valid in its own right, irrespective of how representative of a population the individual is (Wray et al, 1998).

3.2   Population and Sample

The population of the study is students of Political and Social Sciences Faculty (FISIP) of Airlangga University and students of Mathematical and Natural Sciences (MIPA) Faculty of Airlangga University and ITS Surabaya. The writer chose theses two colleges firstly because both are state colleges and secondly, both are located near where the writer stays in Surabaya.

For choosing the most eligible subjects of this study, the writer firstly distributed the translation version questionnaire on Cognitive Style by Caroline Hooper (http://www.mtsu.edu/~studskl) to define the left-brain dominant and the right-brain dominant group. By considering the left brain characteristics which are among more logical, mathematical, and analytical than the right brain, the writer assumed that the chances for finding the left brain dominant students in MIPA Faculty is greater as the students in this faculty study many subjects related with mathematical and analytical disciplines.

Thus, the writer selected the subjects for the left-brain dominant group from the MIPA Faculty and the right-brain dominant from FISIP. There were totally 300 questionnaires distributed in the three faculties. The result of the questionnaires distribution can be seen in the table below (see table 3.1). Regarding that the feedback in the questionnaires showed some shortage, such as some questionnaires are no name, some were not fully filled in, many result scores were standard (the score differences between left and right brain is small), the writer decided to only pick the three highest score from each brain dominant groups. After analyzing the result of the questionnaires, the writer chose three students with highest left brain and right brain score who represented the left-brain dominant and right brain-dominant groups.

Faculty	Left-brain students	Right-brain students	Middle brain	Invalid result	Total
MIPA UNAIR	46	35	7	12	100
MIPA ITS	52	28	12	8	100
FISIP UNAIR	38	39	15	8	100

Table 3.1 the questionnaire distribution result

The subjects of the research were chosen for their differing brain dominance and were matched with their differing disciplines. Three left-brain dominant subjects were students majoring in natural science and the other three were those majoring social science. From the result of the questionnaires, there were six college students who had the highest score for left brain dominance and right brain dominance results. Below is the list of the subjects along with their score based on the questionnaires:

Subject	Left-brain score	Right brain score	Field of Study	Class of	Note
A	16	6	Mathematics, ITS	2001	Left brain dominant
B	15	7	Mathematics, ITS	2001	Left brain dominant
C	15	7	Biology, Unair	2002	Left brain dominant
D	5	17	Communication Studies, Unair	2002	Right brain dominant
E	6	16	Communication Studies, Unair	2002	Right brain dominant
F	7	15	Sociology	2002	Right brain dominant

Table 3.2 the subjects of the study

3.3   Technique of Data Collection

The six subjects were asked to engage two main tasks, which were first, to write based on the given topic and second, to fulfill questionnaire which asked about the process and strategy in writing that they used.

First, the subjects were given topic to write. The writer gave the same topic to all subjects which were about the reason they chose their field of study. The writer gave some instructions to the subjects on how they should accomplish the task. The instructions were: (1) The subjects were not allowed to use any assistance during the writing process, including dictionary, grammar books, or second person who give them any advice; (2) The subjects should notice the time they started to write as well as the time they stopped writing.

The subjects were given a week to finish the writing task and the questionnaire. The subjects were free to choose when they were going to write so they would be able to write in a prime condition –in a good mood, and in natural setting as there were no one and nothing which may cause some pressure. In the last task, the subjects were requested to fill in questionnaire composed by the writer which asked about the process and strategy used in composing their writing.

3.4 Technique of Data Analysis

After the data collection was completed, the writer did some steps to analyze the data:

1. Analyzing the subjects' writing style from first, the aspect of sentence type by classifying the sentence types based on the basic sentence type –simple, compound, complex sentences, and classifying them based on the verb voice –active and passive voice. Secondly, from the aspect of word choice, the writer analyzed the use of modifiers by the subjects.

2. Identifying the misspelled words produced by the subjects. Misspelled words, in this case, mostly refers to the words with incorrect spelling due to the lack of vocabulary mastery which may be caused by the similar pronounced words (for example: then – than), or affected by the first language pronunciation of the same words that may exist in the subjects' first language (for example: dinamic which intended as 'dynamic').

3. Analyzing the writing strategy used by the subjects by listing the strategy in the writing process (pre-writing, during writing, and post-writing process).

4. Made conclusion based on the result of the analysis.

CHAPTER IV

ANALYSIS

This chapter consists of two parts, the first part discusses the subjects' writing style and the second part discusses their writing strategy. The analysis was then compared based on the subjects' brain dominance which is the left-brain dominant subjects and the right-brain dominant subjects, to give a clear distinction style and strategy in writing between the two group brain dominance.

4.1   Writing Style

4.1.1   Sentence Type

4.1.1.1 Basic Sentence Types

In this part, the writer listed some examples of simple sentences, compound sentences, and complex sentences produced by each subject. The numbers on the sentence columns (simple, compound, and complex sentences) indicated the sequential order of the sentences in the subject's writing draft –which is provided in the appendix 4- while the numbers put in the 'total sentences' column indicated the total sentences from the sentence columns.

Brain domi-nance	Sub-ject	Simple Sentence (Sentence no)	Total Sentences	Compound Sentence (Sentence no)	Total Sentences	Complex Sentence (Sentence no)	Total Sentences
Left	A	2*, 3, 8, 9,11	5	1, 7	2	4, 5, 6, 10	4
	B	2, 3, 4, 5, 7, 8, 9, 11, 12, 13	10	1,6	2	10	1
	C	2, 4, 5, 8, 10, 11, 13, 16, 18	9	19	1	1, 6, 7, 9, 14, 12, 17	7
Right	D	1, 2, 6, 8, 9, 11, 13, 14	8	7, 16	2	3, 4, 5, 10, 12, 15	6
	E	3, 6, 14, 19, 21, 22	6	-	0	1, 2, 4, 5, 8, 11, 17, 18	8
	F	1, 2, 3, 5, 8	5	-	0	4, 7, 9, 11, 13	5

Table 4.1 the classification of the subjects' sentence type

* For example: Number 2 in this coloumn refers to sentence number 2 written by subject A. This sentence can be checked from Appendix 4 page 56.

From the table, it was showed that subject A produced 5 (five) simple sentences, 2 (two) compound sentence, 4 (four) complex sentences. Some examples of those sentences are:

Subject	Sentences
A (11)	But we also can learn it from books, internet, friends, experience, etc.
A (1)	The reason why I take my study at Mathematics ITS was because I like something which has computer basic science.
A (6)	I chose Mathematics after I had heard consideration from my tutor.

Subject B has written 13 sentences consisted of 10 (ten) simple sentences, 2 (two) compound sentences, and one complex sentence. Here are the examples respectively:

Subject	Sentences
B (9)	My first option was Ilmu Komputer UGM.
B (6)	When I had studied in Senior High School, I had a smart Mathematics teacher.
B (10)	Although my father had advised me to choose Accounting, Chemistry, or Electrical Engineering, but I had my own option.

Subject C has written totally 19 (nineteen) sentences consisted of 9 (nine) simple sentences, 1 (one) compound sentence and 7 (seven) complex sentences and the examples of those sentences respectively are:

Subject	Sentences
C (2)	Actually, Biology was my second choice.

C (19)   I hope I could get out from Biology right on time and
           become a great scientist someday.

C (9)   I like all the lessons that I've got in Biology.

Subject D wrote 8 (eight) simple sentences, 2 (two) compound

sentences and 6 (six) complex sentences, in which the examples are given

respectively below:

Subject	Sentences
D (2)	I don't really know the reason.
D (16)	And the most wonderful thing is I've learn about friendship and not to judge people by their look.
D (4)	I thought it's like a ticket which allow me to go to many country and meet a lot of people with many characters.

Subject E wrote 6 (six) simple sentences, no compound

sentence, and 6 (six) complex sentences and the examples for the simple

and complex sentences respectively are:

Subjects	Sentences
E (3)	First, I prefer Surabaya as my destination place to study
E (8)	I had to go home rootinly once in a month since my mother alone at home.

Last, subject F wrote 5 (five) simple sentences, no compound sentence, and 5 (five) complex sentences, the examples of the two types of sentences respectively are:

Subjects	Sentences
F (5)	Sociology is the second choice after Accounting.
F (4)	In the first time, I don't know anything about Sociology when I was accepted in SPMB.

The data showed that most subjects used simple sentences more frequently than the compound and complex sentences. The compound sentence type is the least frequent type used by the subjects.

4.1.1.2 Active-Passive Sentence Form

Looking at the subject's sentences type in terms of active and passive voice, the writer only found one subject who is left-brain dominant who used passive voice in his writing. However, there was only one passive voice found in his sentences, which is:

Subject	Sentences
B (4)	Mathematics is seen by me as an art of problem solving.

The use of active voice is preferred by the subjects of the study, as this type of sentence seems to be more familiar to the. The structure of

active voice which is directly indicating the subject of the sentence as the action performer might be more easily understood by the subjects. Moreover, the use of active verb tends to make the subjects feel more comfort compared if they have to use the passive verb (past participle) in which, for some words, have irregular verbs.

4.1.2 Word Choice

4.1.2.1 The Use of Modifiers

The table below lists what modifiers used in the subjects writing:

Brain dominance	Subjects	Modifiers used
Left	A	None (the participant use no modifiers)
	B	smart, soon
	C	actually, smart, at all, good, fun, almost, most, enough, really, especially, on time, great
Right	D	really, so, exciting, great, a lot of, honestly, wonderful, suddenly
	E	interesting , actually, routinely, dynamic, less, better, complex, great, much more, very, so much, qualified, dedicated, practical, active, honestly
	F	nice, friendly, competent , good looking , especially, very, very much, really, positive, important, worth

Table 4.2 The use of Modifier by subjects

From the table above, it is showed that subject A didn't use any modifier in his sentences; subject B used only two modifiers, subject C is the subject in left-brain dominant group who applied many modifiers in her sentences. Below are some sentences containing modifier in subject B and C writing:

Subjects	Sentences
B (1)	When I had studied in Senior High School, I had a *smart* Mathematics teacher.
C (10)	It's *really* characterized my self.

Looking at the right-brain dominant group, it is clearly showed that three subjects in this group used many modifiers in their sentences. The types of modifier used are mostly adjectives. The examples of subject D, E, and F that contain modifiers are:

Subjects	Sentences
D (2)	I don't *really* know the reason.
E (21)	Yes, I impressed *so much*.
F (8)	And I like them *very much*.

The most common type of modifier used all subjects were adjective, for example *smart, exciting, wonderful, nice, friendly* and then

followed by adverb for example *really, suddenly, very, so*. There was no participle function as modifier found.

The use of modifiers in the sentence above gives some sense of affirmation, emphasis, or simply the writer's confession toward the object of the sentences. We can feel a different sense if the modifiers are omitted from the sentences.

From the table above we can see that all three subjects used various modifiers in their writing. By considering these facts, we can say that the right-brain dominant subjects are involving their feeling and imagination more than the left-brain dominants. This is accordance to the function of modifiers use in writing which is to modify the verb and noun, to give some quality to some nouns, and to help to describe what one think or feel, see, hear, or touch. Modifiers are some words to make the sentences carry meanings as close as how or what one intended it to be.

4.1.3 The analysis of the spelling errors

Below is the list some words which are misspelled by left brain dominant subjects:

Brain Dominance	Subject	misspelled words	intended spelling
Left	A	-	-
	B	-	-
	C	-	-

		Misspelled	Right
Right	D	colleage tallent	college talent
	E	rootinly dinamic qualited	routinely dynamic qualified
	F	competen ekspecially korelation	competent especially correlation

Table 4.3 the misspelled word made by the subject

The table above shows that all of left brain dominant subjects' made no mistake at all in spelling the words they used in their writing.

The words above are considered as a mistake due to the subjects' lack mastery of spelling, because some misspelled words re-occur in another sentence. For example the words "colleage" which are misspelled by subject D. Take a look at her sentences:

Subject   **Sentences**

D (1)   Why did I chose Communication Studies for colleage?

D (7)   Don't know why, suddenly I changed my mind just a day before deadline to collected the form to choose my colleage.

This subject still used wrongly spelled word "colleage" in the later sentences that she wrote. It indicated that the subject simply didn't know how to spell the word "college" correctly.

The other misspelled words, can also be considered as a mistake due to subjects' lack of knowledge and not as a slip of the pen or a matter of inaccuracy. This is so because after finishing their writing, all subjects admitted that they did re-read and revises their writing (according to their responses in the questionnaire). Some misspelled words are spelled almost similarly with Indonesian words. This can lead to assumption that the subjects recognized the words which may also exist in Indonesian but they did not know or may be forget the correct spelling in English. The subjects might be affected with how those misspelled words are pronounced and spelled in Indonesian.

From the analysis of these misspelled words, we find that the left brain dominant subjects excel the right-brain dominant subjects. This is accordance to the theory that stated the left-brain dominants are usually good in spelling, as they are good in remembering words.

4.2   Writing Strategy

The subjects' response toward the questionnaire on writing strategy was listed in table 4.4 to give a practical and comparative description on the process of writing undergone by each subject. The writer classified the writing activity into three main stages, which are pre-writing, during writing, and post-writing. The questionnaire form is provided in the appendices.

In summary, the subjects' response to the questionnaire can be explained according to their brain dominance as follow. All subjects engaged in thinking-before-writing process as soon as they were given the topic. The technique they used to explore some ideas to write was similar. As the topic given was about their personal experience, they recalled for some information in their memory, and some subjects from the right-brain dominant also did imagining besides recalling. The planning activity included the thinking about aspects related to the topic, the words they were going to use. Surprisingly, five out of the six subjects admitted that they didn't make formal planning strategy, such as making any outline. There was only one subject who made outline to find the right key words and to develop her ideas.

All subjects directly wrote in English instead of writing in Indonesian first and then translating it into English. During the drafting process, all left-brain subjects stated that they paid much attention to the grammar and concerned about the readers who might read the result of their writing. However, they admitted undergoing several stops during the writing process. Whenever it happened, the subjects would actually reread what they have written, rethink about the topic once again, or just stop to refresh their mind. The right-brain subjects, in the other hand, admitted undergoing fewer stops in the flow of the writing. The strategy they used to avoid stops in writing was to change words or sentences they found difficult.

Aspect of Writing		Left-brain dominant Subject			Right-brain dominant Subject		
		A	B	C	D	E	F
Pre-Writing Process	Techniques of exploring ideas	Recalling	Recalling, imagining	Recalling, imagining	Recalling, imagining	Recalling, imagining	Recalling, imagining
	Planning activity	Thinking of ideas, no outline	Thinking of ideas, no outline	Thinking of ideas, find words to use, no outline	Thinking of ideas, find language style to use, no outline	Thinking of ideas, no outline	Thinking of ideas, making outline
During Writing Process	Technique of drafting	Directly in English	Directly in English	Directly in English	Directly in English	Directly in English	Directly in English
	Focus on grammar	Give much focus	Give much focus	Give much focus	Give no focus	Give no focus	Give little focus
	Take readers into account	yes	yes	yes	yes	yes	yes
	Stops in writing flow	Several times	Several times	Several times	No stops	Few stops	Few stops
Post-Writing Process	Do you re-read and revise	yes	yes	yes	yes	yes	yes

Table 4.4 The Subjects' writing strategy

Concerning the post-writing process, all subjects wrote that they re-read and revised their writing after finishing drafting. The revising activity was used to check whether there were some inappropriate words that they used. Inappropriate words could have several meaning; in the first place, those were the words with incorrect spelling, or, words that just didn't express what they actually wanted to say.

4.3 The Interpretation of the Data

After analyzing the data from the different group of brain dominance, there are some points that can be concluded. Regarding the writing style elements, the writer had analyzed the sentence type that used by the subjects. The result showed that in terms of basic sentence type, both the left-brain dominant group and the right brain dominant group prefer to use simple sentence. The simple sentences were preferable because the structure of these sentences is the easiest compared to the other two types of sentences —the compound and complex sentences. As the writing task were conducted in a free-pressure setting —the subjects wrote in time and place of their own choices, the only factor that might bring different effort in making the writing is their motivation and attitude in practicing and self-testing in writing. The subjects realized that the result would not affect anything related to their academic score. So, they do it nothing-to-lose. That is why they practically would try to accomplish

the writing easily, by mean choosing simple sentences which are considered the easiest sentence type.

Another result from the analysis of the subjects' sentence type was that both group commonly used active voice. One subject who belongs to the left-brain dominant group was the only subject who used one passive voice in his writing, while no right-brain dominant subjects found to use passive voices in their sentences. The subjects' preference in using active voice is because the structure of active voice is easier rather than the structure sentence of passive voice. In active voice the sentence only needs at least the Subject and Verb (in form of present tense). But in Passive voice, the sentence structure is more complex as the sentence needs appropriate be and past participle (verb 3). In some cases, the forms of verb 3 are irregular, and to know it, one has to memorize those irregular verbs. Thus, not all subjects master those verbs. To play safe, they would preferably avoid those verbs by not making passive voice.

From the analysis of the word choice elements, the writer analyzed the use of modifiers by these two groups of subjects. The result showed that only one out of three left brain dominant subjects used modifiers in their writing. All of the three right brain dominant subjects used at least eight modifiers in their writing. The result can be explained as the right-brain dominants are characterized as people who involved their feeling (what they feel, what they sense, etc), so they want to describe what they write as precisely as what they think and feel. We have to note that

modifiers are used to emphasize such qualities or condition of the verbs and nouns. In this case, the use of modifiers is somewhat subjective to the user. For example, if the word "wonderful" is used to describe something, the real condition may be not as wonderful as it is written.

The last analysis of the writing style aspects was about the misspelled words used in the subjects' writing draft. The result is quite surprising as the left-brain dominant subjects' shows no errors at all in spelling the English vocabularies used in their writing. In the other hand, the right-brain dominant subjects produced 2.6 misspelled words in average. This result was in accordance to the theory that left brain dominants are usually good in spelling as they are good in remembering words (Stomlin, 2000).

The next analysis was about the subjects' writing strategy. To understand the subjects' writing process and strategy, the writer asked the subjects to answer seven questions related to the processes and steps they underwent while they were engaged in the writing task. The first and the second question were about the pre-writing stages. Both the left and the right brain dominant subjects confirm that they do thinking-before-writing process, exploring some ideas by recalling, and thinking about some words they were going to use. Five out of these six subjects directly wrote what they think into English words and sentences without doing some formal planning strategy such as making outline. There was only one subject who belongs to the right brain dominant subjects group who made outline to

develop her ideas and to help her to express them in sentences form. She said that by making outline, she would find the right keywords to develop her ideas easier.

One difference between the two groups was their responses on their attitude toward the grammar. The left-brain dominant group put more consideration to the grammar during the writing process, meaning that they tried to write according to the right English grammar, while the other group stated that they didn't really care about the grammar. These facts indicated that the left brain dominant subjects support the characteristics of the left brain which usually pay more attention to the rules and wanted to always follow the rules. The right brain dominant group, in the other hand, characterized the right brain which is more flexible and intuitive. They can tolerate some mistakes that might they make because they see mistakes as a normal process that happen in the learning process.

The left-brain dominant subjects were found to undergo stops during their writing process more than the right-brain dominant subjects. This can be concluded as the consequence of paying too much attention to the rules of writing and to the grammar. They considered that the grammar is something they respect and have to be followed. Too much focusing on rules of writing and grammar restricted their creativity and ability to develop their ideas, and this factor might cause some stops during their writing. The right-brain dominant subjects who pay little and even no attention to the grammar have a larger space to express their idea freely.

They tend to change their sentences or their words choice to avoid the stops. Furthermore, as they are more flexible with their thinking, they think that they didn't always have to follow the grammar. Some subjects who admitted undergoing stops in the writing process said that they would re-read what they have written to find new idea to be written next or they just stop writing to refresh their mind as the strategy in facing stops during the flow of writing.

Overall strategy that used by the two groups were basically similar. Starting from the pre-writing activity that fulfill by thinking about some aspects related to the topic, finding some vocabularies they were to use to develop their ideas, using non-formal planning by not making outline as well as how they would organize their writing in order to be understandable, the composing process, up to the revising process done by re-read and edit some mistakes in the writing such as incorrect words or inappropriate sentences. The strategy in writing might be applied differently depend on the topic difficulties, the motivation of doing writing, and the assessment for the writing result (Weigle, 2002). If the topic given is more difficult, then the more formal planning to organize ideas and aspects related to the topics might be more preferable. The assessment for the writing result would also affect the focus on grammar. Usually, if the writing task is conducted in the formal setting, such as in class activity, one would try to make as little as mistakes by focusing ore on grammar.

CHAPTER V

CONCLUSION

From the analysis of the data and the interpretation of the data, the writer drew some conclusions to sum up the result of the study. First, regarding the subjects' writing style analyzed from the sentence type, both the left-brain dominant groups and the right-brain dominant group show the same tendency in using simple sentence structure and active voice. This evidence might explained two things, first, that the preferences might be caused by the structure of simple sentence is the easiest compared to compound and complex sentences. Using active voice was also more preferable than passive voice for its simplicity directness in showing the doer/actor that performs actions.

The right-bright dominant subjects found to use modifiers more than the left-brain subjects. This might happen because this group used modifiers to give some qualities or restriction based on their own judgment and feeling as the right brain is indeed more emotional and sensitive to feeling.

The left-brain dominant subjects also found to make no mistakes in spelling the words they used in their writing, while the right-brain dominant subjects produced 2. 6 misspelled words in average.

The strategy used during writing the composition showed some similarity as well as differences between the two groups. The similarity found in the pre-writing strategy, the direct use of English in the process of drafting, attitude toward readers, and attitude toward revision after writing. The differences found in their attitude toward grammar, in which the left-brain dominant group

focused on grammar more than the right-brain dominants, and in the stops during the flow of writing in which the left-brain dominants found to experience more stops than the right-brain dominants.

The subjects of the study accomplish the task in natural setting –they freely choose when they would write-which aimed that the subjects did the writing in their prime condition. The subjects were not allowed to use any dictionary and any assistance during writing in order to have a description of their English competency, especially their vocabulary mastery and grammar knowledge. The limitation of doing this study was, first, there was a chance that the subjects didn't do their best in the writing task as they were less motivated to do so because their writing result had no effect toward their academic score. This factor contributed less significant result in their writing which may also limit the area of investigation. One indication showed by the fact that there were lots of ungrammatical sentences produced by the subjects of the study. Secondly, the topic difficulty would contribute a different strategy used by the subjects. Different topic would determine the way the subjects develop her/his idea as well as the strategy during the writing process.

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APPENDIX 1: COGNITIVE STYLE QUESTIONNAIRE (Translation Version)

Mohon bantuannya untuk mengisi kuesioner ini dengan sebenar-benarnya. Atas partisipasinya saya ucapkan terimakasih.

Nama :

Jurusan / Angkatan :

Jenis Kelamin : L / P

KUESIONER

Petunjuk: Pilihlah salah satu jawaban yang paling menggambarkan diri anda.

1. Saat anda memasuki teater, ruang kelas, auditorium (asumsikan tidak ada faktor X yang berpengaruh), sisi manakah yang akan anda pilih?
   a. kanan   b. kiri

2. Saat mengerjakan ujian, bentuk soal yang lebih anda sukai..
   a. obyektif (benar/salah, pilihan ganda, menjodohkan)
   b. subyektif (esai, atau soal diskusi)

3. Apakah anda sering mendapat firasat?
   a. ya   b. tidak

4. Saat mendapat suatu firasat, apakah anda mengikuti firasat tersebut?
   a. ya   b. tidak

5. Apakah anda mempunyai tempat untuk meletakkan barang-barang anda dan barang-barang tsb tertata dengan rapi?
   a. ya   b. tidak

6. Saat mempelajari suatu gerakan tarian, cara yang menurut anda lebih mudah...
   a. menirukan gerakan tersebut dengan mengikuti musiknya
   b. menghafalkan urutan gerakan tarian tsb

7. Apakah anda cenderung memindahkan letak perabot anda beberapa kali dalam satu tahun atau lebih memilih mempertahankan letaknya?

a. mempertahankan   b. memindahkan

8. Dapatkah anda memperkirakan waktu tanpa menggunakan jam ?

a. ya   b. tidak

9. Manakah yang lebih mudah anda pahami?

a. Aljabar   b. geometri

10. Manakah yang lebih mudah anda ingat?

a. nama   b. wajah

11. Jika anda diberikan topik "sekolah", cara yang anda pilih untuk mengungkapkan gagasan anda adalah dengan..

a. menggambar   b. menulis

12. Saat seseorang berbicara kepada anda, apa yang anda perhatikan?

    a. apa yang diucapkan

    b. cara pengucapan

13. Saat berbicara apakah anda menggunakan sedikit / banyak gerak tubuh?

a. sedikit   b. banyak

14. Meja / tempat anda bekerja...

    a. rapi dan teratur

    b. penuh berserakan dengan benda-benda yang mungkin anda perlukan selama bekerja

15. Teknik membaca yang lebih mudah bagi anda adalah..

    a. membaca ide-ide pokoknya saja

    b. membaca dengan detail

16. Posisi terbaik yang biasa anda lakukan untuk berpikir adalah..

a. duduk tegak   b. berbaring / sambil berjalan-jalan

17. Anda merasa lebih nyaman saat melakukan / mengatakan...

    a.   hal-hal yang bersifat humor

    b.   hal-hal yang bersifat logis dan beralasan

18. Saat mengerjakan soal Matematika...

    a.   anda dapat menjelaskan dengan benar cara mendapatkan jawaban anda

    b.   anda bisa menjawab tetapi tidak tahu cara mendapatkan jawaban tsb

19. Format yang lebih anda sukai....

    a.   b.

20. Satukan kedua telapak tangan anda, jempol tangan manakah yang berada di atas?

    a. kiri   b. kanan

21. Pendapat anda tentang "peraturan" adalah..

    a.   peraturan ada untuk dilanggar

    b.   peraturan ada untuk diikuti

22. Seperti apakah pekerjaan yang anda sukai?..

    a. (Outdoor)   b. (Indoor)

APPENDIX2: Kuesioner strategi dan proses menulis

Mohon diisi dengan jawaban yang sebenarnya berdasarkan proses anda menulis.

1. Pada saat anda mendapatkan suatu topik untuk ditulis, apa yang pertama kali anda pikirkan?

2. Bagaimanakah proses anda menulis? Apakah anda mengikuti pola tertentu dalam menulis? (misalnya: apakah anda membuat garis besar terlebih dahulu sebelum menulis?, apakah anda menulis dalam bahasa Indonesia terlebih dahulu kemudian anda menerjemahkannya ke dalam bahasa inggris?, dll)

3. Apakah anda memikirkan tentang tata bahasa (grammar) selama menulis?

4. Apakah anda memikirkan tentang pembaca yang akan membaca tulisan anda?

5. Apakah anda pernah mengalami kemacetan / blank selama proses menulis? Jika hal ini terjadi apa yang anda lakukan? Menurut anda apa yang menyebabkan hal ini terjadi?

6. Apakah anda merasa berhasil menyampaikan seluruh gagasan/pikiran anda melalui tulisan yang anda buat? Jika tidak, menurut anda apa yang menyebabkan hal tsb terjadi ?

7. Setelah menyelesaikan tulisan anda, apakah anda membaca ulang dan merevisinya?

APPENDIX 3: COGNITIVE STYLE QUESTIONAIRE (Original Version)

How Does Your Brain Process Information?

Questionnaire* by Carolyn Hopper

*Adapted with permission from "Learning Style Preferences" by Adele Ducharme and Luck Watford, Valdosta State University.

Directions: Check the answer that most closely describes your preferences.

1. When you walk into a theater, classroom, auditorium, if there are no other influential factors, which side do you prefer?

____ a. right

____ b. left

2. When taking a test, which do you prefer that the questions be?

____ a. objective (true/false, multiple choice, matching)

____ b. subjective (discussion or essay questions)

3. Do you often have hunches?

____ a. yes

____ b. no

4. When you have hunches, do you follow them?

____ a. yes

____ b. no

5. Do you have a place for everything and everything in a place?

____ a. yes

____ b. no

6. In learning a dance step, is it easier for you to:

____ a. learn by imitation and getting the feel of the music?

____ b. learn the sequence of movements and talk your way through the steps?

7. Do you like to move your furniture several times a year, or do you prefer to keep the same arrangement?

____ a. keep

____ b. move

8. Can you tell approximately how much time has passed without a watch?

____ a. yes

____ b. no

9. Speaking in strictly relative terms, is it easier for you to understand:

____ a. algebra?

____ b. geometry?

10. Is it easier for you to remember people's names or to remember people's faces?

____ a. names

____ b. faces

11. When given the topic "school," would you prefer to express your feelings through drawings or writing?

____ a. drawing

____ b. writing

12. When someone is talking to you, do you respond to the word meaning, or do you respond to the person's word pitch and feelings?

____ a. word meaning (what is said)

____ b. word pitch and feeling (how it is said)

13. When speaking, do you use few gestures, or do you use many gestures (that is do you use your hands when you talk)?

____ a. few gestures (very seldom use hands when you talk)

____ b. many gestures (use hands)

14. My desk or where I work is

____ a. neat and organized

____ b. cluttered with stuff that I might need

15. Is it easier for you to read for main ideas or read for specific details?

____ a. main ideas

____ b. specific details

16. Do you do your best thinking lying down or walking around or sitting erect?

____ a. sitting erect

____ b. lying down or walking around

17. Do you feel more comfortable saying/doing humorous things or saying/doing well reasoned things?

____ a. humorous things

____ b. well reasoned

18. In math

____ a. I can explain how I got the answer

____ b. I can get the answer but cannot explain how

19. Which format do you like better?
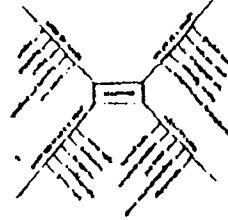
_____ a.   _____ b.

20. Sit in a relaxed position and clasp your hands comfortably in your lap. Which thumb is on top?

_____a. left

_____b. right

21. When it comes to " bending the rules" do you feel:

_____a. rules are to broken

_____b rules are to be followed

22. What does your work are look like?

_____ a.   ___b

APPENDIX 4: Writing Draft

Subject A

The reason why I take my study at Mathematics ITS was because I like something which has computer basic science (1). Why did I choose this study? (2) Let's back to the past (3).

Actually, in the test to enter university, my first option was Informatics and my second choice was Mathematics (4). Because I didn't pass my first option, then I decided to take my second option (5). I chose Mathematics after I had heard consideration from my tutor (6). He said that at Mathematics ITS there are three program study and one of them is informatics (7). Then I chose it (8).

But now, I have different opinion about this (9). "To learn something that we like, we don't have to take a course at legal department which correlate with it (10). But we also can learn it from books, internet, friends, experience, etc." (11)

Subject B

When I had studied in Senior High School, I had a smart Mathematics teacher (1). Her name is Mrs. Faurina (2). She explained Mathematics step by step to solve Mathematics problem (3). Mathematics is seen by me as an art of problem solving (4). I also had a dream to learn a subject that I love (5). I can learn it not as duty but a hobby (6). So I would enjoy it (7).

At UMPTN, I took Mathematics ITS as second option (8). My first option was Ilmu Komputer UGM (9). Although my father had advised me to choose Accounting, Chemistry, or Electrical Engineering, but I had my own option (10). Finally, I was accepted at Mathematics ITS (11). I had studied for five years here (12). Now I will be fresh graduate in Mathematics soon (13).

Subject C

This is my story about Biology Department, UA, where I was taking my college (1). Actually, Biology was my second choice (2). The first was I want to be a doctor, but my brain doesn't smart enough to get in there (3). So, here I am, at Biology Department. (4). At second year of my college, I didn't want to follow SPMB again at all (5). This is

because I have fallen in love with Biology (6). I feel that Biology is the way of my life that God have chosen for me (7).

In Biology, I've got many good friends, lessons, tentors / teachers, and also delicious food at the cafeteria (8). I like all the lessons that I've got in Biology (9). It's really characterized my self (10). It makes me more appreciate the bigness and power of God (11).

Almost every year in Biology, all the students go to some place, which is usually national park, to study (12). It's really a fun thing to do (13). Especially, my hobby was tracking and traveling, so I'm the one who most excited to go at the national park (14).

This year is my last year in Biology (15). Now, I'm doing a research for my thesis (16). I took Microbiology as my research because I really like it (17). I work in laboratory almost everyday except weekend at 08.00 until 15.00 o'clock (18). I hope I could get out from Biology right on time and become a great scientist someday (19).

Subject D

Why did I chose Communication Studies for colleage? (1) I don't really know the reason (2). All I remember, when I was in Senior High School I always wanna be a diplomat (3). I thought it's like a ticket which allow me to go to many country and meet a lot of people with many characters (4). I thought it will be so exciting job to do (5). Of course if I wanna do that I have to choose International Relations as a subject after graduate from High School (6). Don't know why, suddenly I changed my mind just a day before deadline to collected the form to choose my colleage (7). Suddenly I feel that I have to choose Communications Studies (8). Honestly, I don't really have much talent for this kind of subject (9). That's why I think I need to advance my own (10). So, here I am, Communication Studies, Airlangga University (11). It is the nearest university from my hometown, Blitar, which has Communication Studies with a great grade (12). For almost four years I've been here (13). A lot of things I've learn (14). Now, I have more power to deal with people, I think (15). And the most wonderful thing is I've learn about friendship and not to judge people by their look (16).

Subject E

Begin discussing with my sister's friend, named Risqi, about Social science department than I inspired to choose Communication as my field (1). I thought that it will be interesting and yes it did (2). First, I prefer Surabaya as my destination place to study

(3). Actually I want to go to Jakarta, Bandung, or Jogja which is far from my town and has a better degree than Unair (4). I mean the university much more complex than Unair (5). It is the picture in my head (6). But then I decided to choose Unair because it nearer (7). I had to go home rootinly once in a month since my mother alone at home (8). And also the fee or it need less money to paid my study (9). Other reason is because I take social science, so I need a dinamic once, complex city, which is in it there are many problem rose to be solved (10). It will be different if I study at Malang or Jember (11).

Communication Studies for me is a dinamic field, very interesting (12). The lesson, the way the lectures teach and behave, friends, the quality of my lectures are factors that impress me much (13). I love them all (14). Despite I can't lie that one or two of my lectures didn't have or didn't fulfill my criteria about interesting, qualited and dedicated lectures (15). But no matter (16). As a student of university, I can't only waiting for my lectures give me "something" for me (17). I have to be more active to get more than what I get from campus (18). Communication is also a practical study (19). I mean, I practice to write a great article, a great d exhibition from "mice" lesson, being a journalist, role play like held press release, press conference, launching product as part of learning Public Relation Officer (20). Yes, I impressed so much (21). I fall in love with Communication, honestly (22).

Subject F

At present I want to talking about me, my self, and Sociology (1). I am Elis the student of Airlangga University in Sociology (2). About Sociology and me, I have a very nice story (3). In the first time, I don't know anything about Sociology when I was accepted in SPMB (4). Sociology is the second choice after Accounting (5).

And after that when I know one by one teachers who teach our, I surprised (6). It because they are friendly, competen, and is good looking (7). And I like them very much (8). Everyday was happiness ekspecially if Mr. X and Mr. Y teach me (9). And the question,"Did I study in Sociology because the knowledge or the teacher?" (10) I think both of them have positive korelation (11).

In the four year my study, I have get much knowledge, understanding about the social problem whose face in our community and also the experience (12). And I think everything is important and worth (13). When I studied in Sociology I felt there was something change about my self (14). And now I have become a sense people (15).