



Proceedings of the 1<sup>st</sup> English Education International Conference (EEIC) in conjunction with the 2<sup>nd</sup> Reciprocal Graduate Research Symposium (RGRS) of the Consortium of Asia-Pacific Education Universities (CAPEU) between Sultan Idris Education University and Syiah Kuala University

November 12-13, 2016, Banda Aceh, Indonesia



## THE COGNITIVE PROCESS OF WRITING IN ENGLISH: DEVELOPING THE COGNITIVE BASED LEARNING MODEL

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### Abstract

*Skill in writing English is considered a very difficult or complex skill to acquire, especially for students studying English as a foreign language. Often-times, students lose track of what they are doing in the process of writing in English because of the plethora of ideas that come into their minds. In order to be able to accommodate and conceptualize these ideas, managing this cognitive data can be done by using the Think Aloud Protocols Technique. This cognitive based learning method is developed based on the competence of the students in writing. Through a Research and Development (R & D) design, this finding was applied to build up a cognitive learning model which was oriented to the products of the writing by the students in English. It was found that in general, the cognitive processes of the students were able to comprehend explicitly all the activities related to pre-writing, writing, and after writing. However, when referring to their actual competence, the cognitive speeches of the students showed that they did not completely comprehend it all. Quite a lot of barriers were found and there are also several strategies that the students did in pre-writing, writing, and after writing. A mode for learning to write based on cognitive processes was also found and has been tested. The results from the test showed that there was some improvement in the English writing produced by the students.*

**Keywords:** Cognitive processes, writing, learning model.

### INTRODUCTION

In order to write, people must perform a number of mental operations: they must plan, generate knowledge, draft it into writing, and edit what they've written. A writer caught in the act looks much more like a very busy switchboard operator, juggling a number of demands on her attention with constraints on what she can do (Flower & Hayes, 1981, pp. 31-33). They have emphasized that adequate mental preparation for writing is absolutely necessary since it needs planning, knowledge processing, and editing. Writing is categorized as a difficult, complex skill.

Diederich (1974, p. 21) reveals his personal experience when undertaking remedial writing classes with his students, "...they hate and fear writing more than anything else they have to do in school. If they see a blank sheet of paper on which they are expected to write something, they look as though they want to scream". Intrinsically: "... generally, writing anything but the most routine and brief pieces are the mental equivalent of digging ditches" (Kellogg, 1994, p. 17). This is because in writing, individuals are required not only to be able to string all their words and sentences together, but also to develop and express their thoughts and ideas in neat, orderly writing. Oshima and Hogue (1987) have explained that students frequently make mistakes in writing and find it difficult to organize their compositions and language usage. The difficulties can be obviously recognized when

they are assigned to write a composition in Indonesian, and they become even more difficult for them to write in English. Some scholars state that there are always differences between first and second language in a writing process (Silva, 1993) while some others argue that the writing process in both the first and the second language is principally the same. ( Matsumoto, 1995 ). Likewise, writing is perceived as a challenging and motivating activity in a learning process, as asserted by Irmischer (1979):

Once we move students beyond those basic levels of proficiency [grammatical structure and basic punctuation], we can see new dimensions of expressiveness, imaginativeness, and intellectual growth that are accessible only to someone engaged in composing, whether that performance is acting, dancing, painting or writing (Irmischer, 1979, p. 241).

As it is noticed, there have been a lot of studies done focusing on writing as a product. Different from some previous studies which only focused on writing as a product, this study aims to analyse writing as a process, which centres its main concern on the students' cognitive processes in producing English writing. This study evaluates writing in terms of cognitive processes. There has been little attention given to study of cognitive processes since they are difficult to do. This study focuses on how a writer manages his cognitive processes which are needed for creating a piece of writing. Writing requires some high and low processes (Flower & Hayes, 1981). Furthermore, they assert that there are three basic cognitive processes in writing namely *planning, translating, and reviewing*. This study is also aimed at describing how the writing process starts, proceeds and ends. At the first stage of the cognitive processes for writing in English, it has been noticed that there are still a lot of students get flummoxed and puzzled in determining the title for their work, arranging sentences, structuring and organizing their thoughts and ideas, selecting appropriate words and collocations and closing their writing.

The cognitive processes in writing were studied by Flower and Hayes in 1981. They have explained that writing is a process which consists of a series of decisions and choices. However, writing is not as simple as they describe. Furthermore, the thing that needs to be considered in writing is, 'what criteria are useful for guiding and leading the writers in determining their choices and decisions?' Britton, *et al.* (1975) argue that writing as a process is designing linguistic choices from one's repertoire of syntactic structures and lexical items. There is a meaning, or something to be expressed, in the writer's mind, and then he proceeds to choose, from the words, collocations, language patterns and structures he has at his disposal, the ones that best match his meaning.

There are three stages of cognitive process that the writers have to carry out: planning, translating, and reviewing. In planning, there are three sub-categories, namely composing and expressing ideas, organizing them, and inferring a conclusion for the ideas expressed in the writing. In the translating stage, the writers transform and modify their ideas from the hierarchical planning into sentences. This includes inserting and putting ideas into language (text generation) and then into written language (transcription) in order to form a cohesive and coherent text. And the last, in the stage of reviewing, the writer conducts a thorough review of the ideas and purposes and language used in that piece of writing.

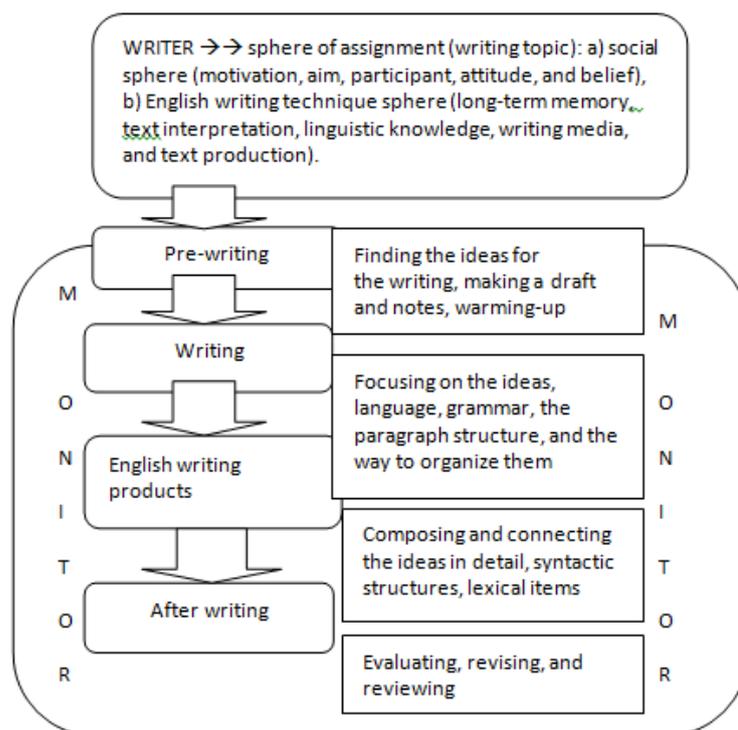
## **METHOD**

The research method which was used in analysing "Cognitive Processes for Writing in English: The Development of a Cognitive Based Learning Model for Writing English for Students at UNIMED" is based on Borg & Gall's *Educational Research and Development Model* (1983). This developed cognitive learning model was designed by using Dick and Carey's model (1996). The subjects of the study were the students of the English Education Program at UNIMED, who took English Writing in their third semester in the 2014/2015 academic year. All the students observed have studied writing theory and practice in Writing I, II, and III classes. It was considered that these students already knew and comprehended the basic principle of writing and the mechanics and organization of sentences in a paragraph sufficiently well and that their cognitive processes have already been assessed as eligible and adequate to produce a good piece of writing. The data for this study were collected by using classroom observations, a questionnaire and interviews, as well as cognitively recording the

processes followed overall by the students in their English writing activities. The study also deployed the *Think Aloud Protocol* technique to obtain cognitive data from the students.

## RESULTS AND DISCUSSION

Through the observations, tests, interviews and data analysis which were done, it is considered that in general, both lecturers and students need a proper English writing learning model. Based on the results of the analysis, the lecturers and their students require a specific English writing learning model because of the needs to support and to improve the teaching-learning process in order to achieve a proper academic goal i.e., get better writing. Here is the cognitive learning model in writing in English based on the analysis made.



**Figure 1.** Cognitive learning model for writing English (EFL).

Writing is an activity of delivering or retrieving messages in an indirect way, or through a medium, that is a written language medium. It is a skill that must be mastered by students of English (EFL). Writing is considered as an ability which all students have to acquire since they are required to write a final written product or thesis at the end of their learning processes or program. The efforts that need to be done to improve the quality of their writings can be done with an innovative learning model through the application of the genre process approach. This approach is the combination of the process approach and the genre approach. This process of cognitive approach allows the students to learn the relation between a set of certain purposes and the forms of a particular writing cognitive process, which is exactly the same as what they do in the iterative process, starting from pre-writing, process of writing, product of writing, and after writing.

The cognitive process is a mental process or mental state which is used by the students to learn new things and applied in the stages of learning. They perform their cognitive processes by connecting and integrating their writing skills with their previously obtained knowledge, especially the knowledge of writing in English. In general, blocking occurs in the students' cognitive processes, such as the sphere of assignment (writing topic), before the students start writing. The sphere of assignment itself is categorized into two main categories, namely the social sphere and the English writing technique sphere. In the social sphere, the components involved are motivation, attitude, aim, participants, and beliefs. Meanwhile, in the English writing technique sphere, the components included are long-term memory, linguistics knowledge, the writing medium, reflections and finally

text production. Through these two spheres, the writers get into the pre-writing stage, the writing process stage, the product of writing stage, and the after writing stage.

The pre-writing or planning stage is the stage where actions or activities build up the inner ideas in the writers mind. This stage determines the order of information which is going to be written such as how to co-ordinate the ideas, to organize the information, and to set the final goals. The purpose of planning is to encourage the students/writers to try to gather information from their stored knowledge and long-term memories by using notes (drafts), and then use it to set a goal or to create a plan which is useful for improving the results of their designed writings. Then, the ideas and thoughts which have been established in the planning stage are translated by the students into their second language, which is English. At this stage, the students create a concept map of the ideas which are going to be used in their writings.

In the process of composing a piece of writing, the students gradually try to express their ideas and thoughts on paper. They begin to write and link up their ideas in a piece of writing, starting from one sentence to the next one and then to sequence them into well-written and easily-grasped paragraphs. They try to focus on the use of good English grammar with correct spelling and punctuation. After that, in the writing stage, each student tries to produce a piece of good English writing by paying attention to proper English structure, punctuation, and spelling in detail.

In after-writing, each student tries to revise, examine, and evaluate their overall English writing product. They check the spelling, the vocabulary/collocations, punctuation, the cohesiveness of their sentences, and the coherency of their paragraphs. In after-writing, there are some activities can be carried out, such as re-reading the writings, doing peer-review, making notes on the parts of the writing which need to be revised, and/ or asking the lectures to do some corrections. After incorporating revisions and suggestions a final written product can be published. Thus, it can be expected that this stage can produce a better English writing product.

## **CONCLUSION**

Based on the results of the study, the students exhibited much progress in the teaching-learning process for writing English (EFL). The cognitive learning model was a breakthrough for English writing activities which resulted in a significant improvement in the writing done by the students. It is suggested that further more elaborate studies for developing this cognitive learning model for writing English (EFL) should be done in order to develop a better, more reliable and more dependable model.

## **REFERENCES**

- Borg W. R., & Gall, W. D. (1983). *Education research: An introduction* (4<sup>th</sup> Edition). New York: Longman
- Britton, J., Burgess, T., Martin, N., McLeod, A., & Rosen, H. (1975). *The development of writing abilities*. London: Macmillan.
- Diederich, P. B. (1974). *Measuring growth in English*. Urbana, I. L.: National Council for the Teaching of English.
- Flower, L., & Hayes, J. (1981). A cognitive process theory of writing. *College Composition and Communication*, 32, 365-387.
- Irmscher, W. F. (1979). *Teaching expository writing*. New York: Holt, Rhinehart.
- Kellogg, R. T. (1994). *The psychology of writing*. Oxford: Oxford University Press.
- Jones, S. & Tetroe, J. (1987). Composing in a second language. In A. Matsuhashi (Ed.), *Writing in real time: Modelling production processes* (pp. 34-57). New York: Longman.
- Matsumoto, K. (1994). Introspection, verbal reports and second language learning strategy research. *Canadian Modern Review Language*, 50(2), 363-386.
- Oshima, A., & Hogue, A. (1987). *Writing academic English*. London: Wesley.
- Silva, T. (1993). Towards an understanding of the distinct nature of L2 writing: The ESL research and its implication. *TESOL Quarterly*, 27(4), 657-677.