

THE IMPLEMENTATION OF THE GENRE-BASED APPROACH IN THE TEACHING OF WRITING TO ENGINEERING STUDENTS

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Abstract:

Good communication skills are a requirement for all professionals. As for engineers, it seems that writing is one of the most important communication skills to help them to be successful in their professional life. However, many engineering students are poor in writing. Numerous studies have been conducted to determine the effectiveness of the different methods used to develop the writing skills of language learners, including the genre-based framework. The present study aims at examining the writing achievement of Thai engineering students receiving writing instruction through the explicit genre-based approach, or GBA (SFL genre), and their attitudes toward this method of teaching. The participants were 28 fourth-year engineering students enrolled in a basic writing course. One lesson in teaching writing recounts was provided during three sessions. The results of a T-test revealed clear improvement in the students' writing ability after attending the lesson. Regarding the attitudes of the students, the findings were crosschecked with the students' responses to the questionnaire, to the interview questions, and in their journal. It was found that the students had a satisfactory attitude toward this teaching method. Based on the study findings, it is recommended that language teachers incorporate the knowledge of genre, genre analysis, and schematic features of a particular genre in their teaching in order to enhance their students' writing proficiency and confidence.

Keywords: teaching writing, Genre-based approach, EFL/ESL writing, engineering students

INTRODUCTION

Academic writing is an important academic literacy skill for students at the tertiary level because the achievement in their education and profession in the future requires the writing skills. According to Anderson (2002), the students' ability to do successful academic writing is widely criticized because they must master both content and academic competence. It is also quite difficult for English as a Foreign Language (EFL) students, to successfully master academic writing because it requires a strong background in the organization of written texts, appropriate language, and vocabulary use (Tangpermpoon, 2008). According to the results of a survey conducted by the Office of Education Testing of the Department of Curriculum and Instruction at the Ministry of Education, generally Thai students' writing skills are found to be below average (Wongsothorn, Hiranburana, & Chinnawongs, 2003: 447-448). Therefore, it has become one of the most important challenges for teachers in Thailand to find an appropriate teaching approach to help Thai students improve their academic writing ability.

As stated previously, this study drew heavily on the Systematic Functional Linguistics (SFL). Thus, it is necessary to understand the SFL concept and its pedagogical applications. The SFL considers that language is a resource for making meaning and how language is involved in the construction of meaning (Derewianka, 1990). The SFL is designed based on a number of features central to the SFL theory of Halliday or model of language, which describes the variables in context and how they impact language use (Halliday, 1994 cited in Hammond & Derewianka, 2002; Chaisiri, 2010). The essence of Halliday's theory of language is that language varies according to the context in which it is used. That is, "language is inseparable from contexts" (Krisnachinda, 2006; p. 19). According to SFL, any text can be understood when it has a relationship with a context at two levels: register (context of situation) and context of culture.

Generally, register or context of situation must be considered when people make choices of language, which are based on three variables: field (topic of the text or social activity), tenor (relationship between the participants), and mode (the role of language, e.g. wholly written or written and spoken) (Hyland, 2007). Regarding the context of culture, it explains that texts are culturally understood as purposeful, social processes. Also, genre is embedded within the context of culture. The genre of a text is partly determined by the culture in which the text is used (Derewianka, 1990). This context of culture also affects the language choices of language users in choosing appropriate language to serve social communicative purposes. Genres are ways in which people in a culture share particular social purposes and stages in using language (predictable patterns of organization) in order to achieve goals. In brief, language users choose one genre among others based on a particular context or social purpose, field, tenor, and mode, and this affects particular language choices at the lexical and grammar level.

With respect to the application of SFL genre pedagogy, what the teacher should emphasize can be drawn from the aforementioned SFL genre theory. Thus, the focus is placed on the functions of each genre and how component elements are organized to express these functions through explicit instruction (explicit grammar of linguistic choice, text structure, and purpose) together with register context (field, tenor, and mode) (Hyland, 2007). Moreover, another key to teaching based on the GBA is the scaffolded classroom, which is based on a theory of scaffolding proposed by Vygotsky (1978). This concept offers students a supportive environment for learning (John, 2003) where students are supported by the teacher. In addition, students practice writing collaboratively with classmates in class and in groups.

According to the concept of SFL genre and SFL pedagogy, teaching stages are called 'the teaching and learning cycle' as proposed by many scholars. This study focuses on the cycle proposed by Feez and Joyce (2002). The teaching and learning cycle involves five stages of teaching: building the context, modelling and deconstructing the text, joint construction of the text, independent construction of the text, and linking related text. The details of each teaching stage in the cycle will be discussed further below. Other studies have been carried out on teaching using the GBA, including, Kongpetch (2006), who studied the impact of the GBA on teaching writing exposition. Additionally, Dang (2002) investigated the effectiveness of the GBA in terms of teaching the genre of English discussion with 23

Vietnamese second-year undergraduate students in a four-week writing course. Krisnachinda (2006) and Chaisiri (2010) conducted research on the writing ability of English major students after studying with the GBA (writing recounts) at the tertiary level in Thailand. The results all revealed that the students improved their writing ability and had positive attitudes toward the teaching method.

Apart from the product and process approach, which has been widely used to teach writing, the genre-based approach (GBA) has also been proposed. There are three schools or models of genre each focusing on different concepts: English for Specific Purposes (ESP), Systematic Functional Linguistics (SFL), and the New Rhetoric (NR). However, this study focuses only

on the Systematic Functional Linguistics (henceforth SFL) because the concept and details of the SFL genre meet the content of the target course adopted in this study. A review of the literature reveals that numerous studies have employed the GBA (SFL) to equip Thai tertiary students with needed writing skills (Krisnachinda, 2006; Kongpetch, 2006; Chaisiri, 2010). These studies have reported that the students' writing ability has been improved and they also have developed positive attitudes toward the GBA. However, most research in Thailand has been conducted with English-major students who usually have quite good command of English language skills. This study investigates the writing achievement of undergraduate engineering students for whom the writing skill is also necessary not only for their academic but also their professional success. Beer (2005) argues that over 40% of the work time of engineers is spent on writing and ranks the ability to write as the most important skill in engineers' success. For the Thai context, teaching engineering students is seen as a challenge because many of them have poor English background knowledge. Most of them study only a few English courses in the first and second academic years, as evidenced in the findings of Wattanasakulpusakorn (1996), who found that undergraduate engineering students had limited writing ability and were unable to pass writing exams. Thus, it was interesting to employ the GBA to determine if this particular approach could help improve the engineering students' writing ability. Therefore, the present study aims at answering the following research questions:

1. What is the writing achievement of students receiving writing instruction based on the GBA?
2. What are the attitudes of students toward writing instruction based on the GBA?

RESEARCH METHODOLOGY

A mixed-method research design analyzing quantitative and qualitative data was employed to allow for triangulation of the data in order to strengthen the validity of the results (Tashakkori & Teddlie, 1998).

Research design

A one-group, pre-test and post-test design was adopted in this study in order to measure the effects of three sessions of teaching writing through the GBA (Fraenkel & Wallen, 2006). Therefore, the participants were tested on their ability to write recounts at the beginning of the semester and were taught how to write recounts during week 7 of the course; then their achievement was tested in week 10. The participants were 28 engineering students enrolled in one section of the Writing I course at King Mongkut's University of Technology North Bangkok (KMUTNB) as an elective during the first semester of the academic year 2011. Most of them were fourth-year students and a few were fifth-year students. They were studying in various departments at KMUTNB. These students had previously taken three hours of multi-skilled English per week for two semesters as compulsory courses.

Teaching materials

The content of the Writing I course focused on basic writing at the sentence and paragraph levels. At the paragraph level, students were required to study writing description, recounts, and giving examples and reasons. However, because of time constraints, the main content of this study focused only on writing recounts. This content was chosen from a study which revealed that engineering students should learn how to write recounts and descriptive texts since they need the skills of describing situations and features of equipment, and retelling events that happened (Changpueng, 2009). Most of the materials and exercises in teaching recounts were created by the researcher of the study based on the theory of SFL genre, while some of them were adjusted from Foley (2011). The materials were designed specifically to serve each step of teaching, which made the students aware of the purpose and structural features of the genres.

Teaching methods

The teaching and learning cycle is a teaching concept used in teaching writing based on the GBA, especially for the theory of the Systematic Functional genre (SFL genre) (Hyland, 2007). Underpinning this is the notion of scaffolding, which relies on the social constructivism language acquisition theory (Feez & Joyce, 2002; Hammond, 1992 cited in Kongpetch, 2006: 11). One of the most straightforward representations of this cycle is offered by Feez & Joyce (2002), as shown in Figure 1.

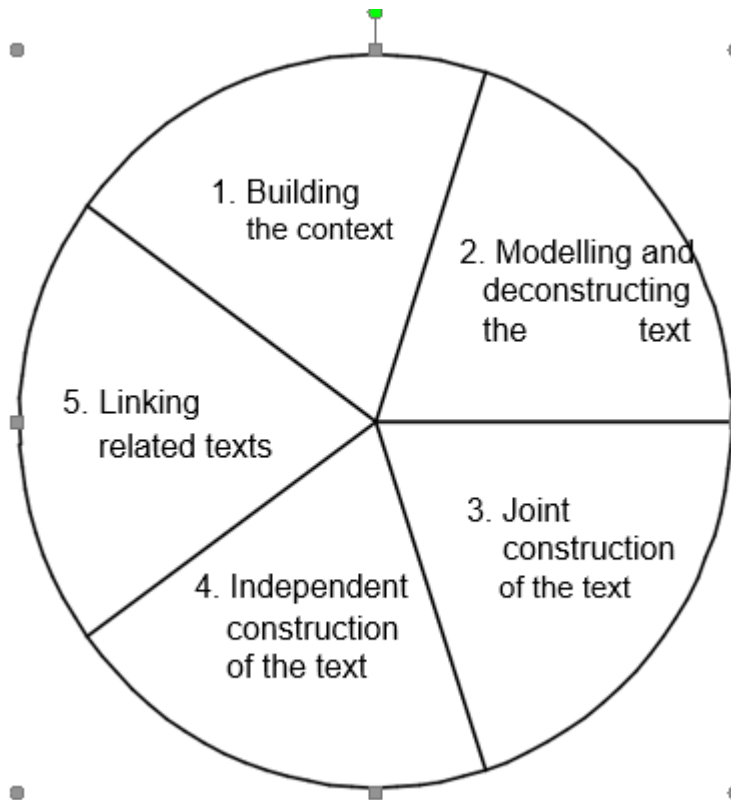


Figure 1: Stages of the teaching-learning cycle (Feez & Joyce, 2002)

The cycle consists of five stages: building the context, modeling and deconstructing the text, joint construction of the text, independent construction of the text, and linking related texts. In building the context, students are introduced to functions of language and how meaning work in the situation and cultural context. At the second stage, the emphasis is placed on text analysis. The students are exposed to the purpose, generic structure and language features of texts. As for joint construction stage, the teacher and the students work together to construct a text. The teacher takes the role as the supporter who shows the students how to think and organize ideas in order to write a text. Also, the teacher needs to encourage students to think and write down their ideas on the board. In addition, the teacher

may need to show them how to rewrite sentences or statements proposed by students to make them appropriate. Then, students can practice writing together in groups. When they feel more confident in writing, they can practice writing by themselves in the fourth stage. The linking related text stage gave students opportunity to investigate how the genre they had been studying was related to other texts that appeared in the same or a similar context to other genres they had studied. This could only be successfully conducted after the students had learned and understood the target genres provided in the classroom, as that would provide them with a basis to make comparisons.

Data Collection and instruments

Pre- and Post-tests

The students needed to complete the pre-test (during the first week of teaching) and post-test as an achievement test to reveal how much they had improved after attending the course. The test was subjective (a criterion-referenced test). The test consisted of one item and lasted 30 minutes. Inter-rater reliability had to be considered since there were two raters that marked the test (Alderson, 1996). The reliability of the two raters was assessed by correlating the marks given by two or more raters for the same students. The results of their grading were then calculated using Pearson's Product Moment Correlation Coefficient (Wiboolsri, 2008) and an independent samples t-test. It was found that there was no significant difference in grading between the two raters. This meant that their grading was acceptable. The correlation value between the two raters of the test was .93. In addition, the index of difficulty of the test was .51.

Questionnaire

An attitude questionnaire was designed to evaluate the attitude of the students toward the GBA. Fraenkel & Wallen (1996), cited in Saengboon (2005), stated that it is possible to discover attitudes by asking individuals to respond to a series of statements of preference. The questionnaire consisted of three components: teaching method and teaching activities, and writing achievement. The form was written in Thai in order to prevent a language barrier and was then verified by a panel of three experts. Students that were en-rolled in the course were asked to express their attitudes toward the teaching method at the end of the course. The questionnaire was divided into two parts: attitudes of students after studying with the GBA (five-point Likert scale) and suggestions about the teaching method (open-ended questions). The reliability of the questionnaire was 0.88.

Interview

In addition to the questionnaire, a semi-structured interview was also employed in this study. Merriam (1998) indicated that a semi-structure interview is a flexible instrument that allows the researcher to react with the situation at hand, with the emerging worldview of the participants, and with new ideas on the topics. The interview questions were somewhat similar to the questions in the questionnaire in terms of the topics. Three students were randomly chosen to be interviewed. Three students were suitable because they represented about 10 percent of all the students in the class.

Student log

Wasanasomsithi (2004) suggests that student logs should be used when researchers want to make a very detailed observation or an individual or group. Students were asked to write a student log after they have finished each teaching stage. The content of the student log concerned the attitude of the students toward the exercises and activities at each teaching stage.

Data Analysis

In order to determine the writing achievement of the students, the scores from the pre-test and post-test were compared by using a dependent samples t-test. Moreover, in order to determine the attitudes of the students towards the GBA through the questionnaire, the mean scores and percentage were used. In addition, the answers from the respondents in the interview session were analyzed by using content analysis (Fraenkel & Wallen, 2006) (counting the frequency of words and phrases), as was the information in the student log.

RESULTS

Writing Achievement

The first main findings of the study are presented in Table 1.

Table 1: Comparison between the pre-test and post-test writing scores using t-test among engineering students

	N	Mean	S.D	t
Pre-test	28	8.18	2.74	7.20*
Post-test	28	12.21	1.47	

* $p < 0.05$

Table 1 compares the pre-test and post-test scores among the engineering students. The results revealed that the mean scores of the post-test were higher than those of the pre-test. It was also found from the t-test results that the writing achievement scores from the post-test of the students that were taught with the GBA was significantly higher than those obtained from the pre-test ($p < 0.05$). This means that the GBA was effective.

Attitude toward the GBA

According to the second research findings, it seemed that most of the students favored the GBA. This could be seen from the mean scores of each item of the questionnaire, which were higher than 3.5. In addition, the average mean score of the questionnaire was 4.20. Wiboolsri (2008) suggested that the acceptable value of the mean representing a positive attitude has to be higher than 3.5 for each question of the questionnaire. Thus, it can be said that the students had a positive attitude towards the GBA. These results were also confirmed by the results of the qualitative data (interview and student log).

The findings from the students' log demonstrated that most of them thought that the activities and teaching method helped to enhance their understanding of the recount. The lesson provided various samples of recounts. They stated that "I enjoyed reading various samples so I can see how to write a good recount." They also liked the lesson because it enhanced their thinking skills. As one student explained, "This activity was useful since it encouraged the thinking skill. We can see the difference of language when it is used in different contexts."

As for the text analysis, one student said, "I liked the text analysis activities because I have chances to read samples of text. I analyzed both text structure and language feature. All these activities helped me understand the model for writing a recount better and the texts can be samples of writing recounts." Moreover, a student said that "The explanation was easy to understand. The activities and exercises provided me samples of written recounts."

Also, the students had a positive attitude toward the joint construction stage. For example, “I really liked the way that teacher taught us how to write via watching a movies. I didn’t feel bored.” Another student said, “I could follow the way that the teacher showed us how to write by writing together in class. I could see my friends try to help each other to answer the questions the teacher asked to help us write together in class.” Furthermore, they also enjoyed working together in groups. Activities in this stage made them confident to write. For example, “I enjoyed working in this stage because I learned how to work in groups. We had to brainstorm to write together.” “The activities were useful since I learned how to write from friends in my group and also got feedback from friends in other groups. I liked the way that we use a computer notebook to practice writing in our class. It was fast and easy. The teacher also gave us feedback in class to help us understand more clearly.”

Most students liked the fourth stage since they practiced writing recounts by using what they learned from the other stages. Also, they became aware of their problems in writing at this stage. One student noted: “I enjoyed practice writing because I used what I learnt from ex-sessions like doing an experiment. I got freedom to think and write what I wanted. Also, I enjoyed thinking of my old stories and wrote to share with friends on Facebook. My friends and teacher gave me feedback. I could see my writing problems in order to improve my writing performance.” Comparably, the findings from the interview indicated that most students responded positively to all of the teaching stages: “I thought that the GBA was a good teaching method since my writing ability improved after I practiced writing via the GBA.” (Student 3)

Additionally, the method, according to them, was not too difficult to understand, and they liked the lesson as well. The results from the interview confirmed these findings.

“I like the lesson of recount because it helped me understand clearly how to write recount. The lesson provides various samples that I could use them as models in writing recount.” (Student 3)

“The teaching method was clear and good for engineering students like us because it was similar to what we were familiar with in studying engineering courses; that was, teaching theory first and then explaining its structure, and after that pointing out how we can apply that issue in different contexts. This meant that we saw the overall picture of writing a recount first and then practicing writing.” (Student 2).

With respect to the teaching activities and exercises, it was found that the students had favorable attitudes towards them, recording for example: “I thought that text analysis was quite difficult because I had to think a lot and some questions were difficult to find specific answers to. However, it was beneficial for me because I learned a lot about how to write a recount with this activity” (Student 1).

“I liked most of the activities since they were not too difficult to follow. They were suitable for my English background knowledge” (Student 2).

In conclusion, the results of the test revealed that practicing writing through the GBA helped the students to improve their writing ability. In addition, the congruent analysis results from the questionnaire, interview, and student log showed that the students had positive attitudes toward the GBA. They also had favorable attitudes toward the teaching method, the exercises, and the activities.

CONCLUSION AND DISCUSSION

The findings of the present study revealed that there was a statistically significant difference between the pre-test and post-test scores of each group of engineering students that attended the GBA lessons. One possible explanation is that the GBA helps students to understand clearly the text structure of the target genres, their functions, and linguistic features. In other words, the GBA offers writers an explicit understanding of how target texts are structured and why they are written in the way they are (Hyland, 2007). Explicit understanding of text structures, linguistic choices, and purpose of genres is crucial because one of the difficulties faced by EFL students when asked to produce an academic text is that they often have an inadequate understanding of how texts can be organized to convey their purposes (Hyland, 1990). The findings of this study support the findings of previous studies, such as those of Udomyamokkul (2004), Kongpetch (2006), and Chaisiri (2010). Another possible reason that supports the conclusion that the GBA helps improve students' writing is the application of the scaffolding concept in class. This is because the activities and exercises at all teaching stages of the 'teaching and learning cycle' enabled the students to understand gradually how to write a recount. According to the scaffolding concept, the interaction between teachers and students, and the interactions among students, help them to progress from what Vygotsky calls an actual development level to a potential development level (Vygotsky, 1978). Empirical research has also shown that scaffolded classrooms enhance students' learning (e.g., Donato, 2000; Ohta, 2000). In addition, students learn how to write from authentic models of text samples of recount and practice using linguistic features in various situations. Simply put, the students are able to write better because of the text models. The last possible reason is providing them with teacher and peer feedback because students learn how to write better from feedback. This is similar to the findings of several studies (e.g. Kongpetch, 2006; Chaisiri, 2010; Wanchid, 2011).

The second result of this study was that the students had positive attitudes toward the GBA, including increasing their confidence in writing recounts. One plausible explanation is that this particular teaching method helps students to improve their writing ability, so they have more confidence in writing. In addition, it is possible that the contents of the lessons meet their needs, thus making them able to use what they have learned from the class to actual use. Also, the GBA provides them with visible instruction, scaffolded activities, and model samples. All of these factors make them feel comfortable and make it easy for them to practice writing recounts. Such a finding was similar to those reported by previous studies (Udomyamokkul, 2004; Krisanajinda, 2006; Kongpetch, 2006; Chaisiri, 2010).

IMPLICATION OF THE FINDINGS

The findings of this study shed light on the benefits of the GBA for EFL teachers, especially those teaching English writing to Thai engineering students.

Clearly Explaining Text Structure and Its Purpose

The students reported that their writing ability had improved because they were able to remember the recount patterns or text structures. This means that teachers have to clearly explain the text structure or pattern of the particular genre and its purpose. Moreover, the purpose of each text structure segment must be explained in its relation to the linguistic features used in that segment. To help the students understand and remember the text structures and linguistic features, exercises should be provided, for example, having the students analyze the text samples in terms of text structure, linguistic features, and the relationship between the reader and the writer. In addition, providing them with various exercises to practice and review their English background knowledge concerning language features is a requirement because students need to practice using certain language features so that they can write in the target genre.

Group Work is Required

The findings showed that most of the students enjoyed working in groups because they were able to learn from one another. Thus, group work should be assigned during the steps. For instance, holding a group discussion activity can be a choice for the first teaching stage— to build up knowledge. Also, it is suggested that students should be trained how to work in groups so that they can get to know each other, especially if they are from different majors. This is because students may feel uncomfortable working with people they do not know. Ice breaking activities are optional at the beginning of the course.

Various Model Samples Needed

It is evident that the model samples taught students new vocabulary and increased their writing ability; therefore, providing them with various and rich model samples is important. However, the level of difficulty of those model samples should suit the students' English background knowledge.

Students Need Teacher Support

The findings showed that students need teacher support in order to feel confident in writing. This support can occur at every stage of teaching through the use of scaffolding activities. The degree of support depends on the ability of the students. The activities that need the most teacher support are during the joint construction teaching stage and in giving them feedback. Therefore, the "think aloud technique" can be employed during the joint construction stage because students can then see how teachers think and can practice writing with their teacher. Also, teachers should be flexible, and respond to students' needs accordingly. Teachers should encourage students to think, and speak out, what they want to write. This means that the teacher must be knowledgeable in the areas of language features and content. After that, asking students to practice writing in groups is also a good option because students can work together in order to apply what they have learned about writing from their teacher to the actual writing assignment. This will also help them to be confident in practicing individual writing in the next stage. What teachers need to do at this stage is to help students correct their work, complete their assignments, and feel confident in handling individual writing tasks.

As for giving the students feedback, giving feedback via Facebook is recommended. Students will learn about their mistakes in writing through the teacher's feedback and their group members' feedback in the record menu. In this way, students can also learn from their classmates' mistakes because they can also see how the teacher gave their friends' feedback.

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