

# ESL WRITING STRATEGIES ACROSS DISCIPLINES AMONG DIPLOMA STUDENTS

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**Abstract** — According to Green (2013)[1], successful writing is a result of careful planning. Successful writers are capable of using effective writing strategies and transferring these strategies to write academic texts in their content areas. Skills in academic writing are used way beyond the ESL writing classrooms. Students from institutions of higher learning use academic writing to submit assignments. The knowledge (or lack of) academic writing strategies will facilitate (or hinder) their assignment writing. This study looks into the writing process of Diploma Engineering students. Using the Flower and Hayes writing process model (1981)[2] as the basis of study, this quantitative study describes the strategies ESL writers use when they write their written assignments. Results of this study will have useful implications towards the teaching of academic writing in the future.

**Index Terms**—Writing strategies, Diploma students, writing process.

## I. INTRODUCTION

Students leaving secondary schools may be overwhelmed by changes from writing narrative and descriptive essays to academic genres. Academic writing in universities may be taught as a course in the ESL classroom; however, the skills and strategies learnt are used across the curriculum to write assignments in their content areas. Giridharan and Robson (2012)[3] found that students may face challenges when they write academic essays. They may then realize that academic the focus of writing may be more than just grammatical errors, structural, or even syntactical; writing actually involves writing process skills, knowledge of the writing task as well as using their background knowledge.

## II. RESEARCH QUESTIONS

This research is done to answer the following questions:

- Is there any significant difference in the task environment, long term memory and writing process of Social Science students and Science & Technology students?
- In what ways do types of programmes influence task environment?
- In what ways do types of programmes influence long term memory?
- In what ways do types of programmes influence the writing process?

## III. REVIEW OF RELATED LITERATURE

### A. Writing Process Skills

Writing is a thinking process. Writers go through some processes in their mind throughout the writing assignment. Farhad Fahandezh Sadi & Juliana Othman (2012)[4] agreed that writers generally do have some form of planning before and while writing. What differentiates is how much of planning was done by different writers. In addition to that,

Johana Yusof, Nor Ashikin and Ahmad Shaari (2012)[5] and Arumugam & De Mello (2012)[6] also found that besides planning before and while writing, writers need to review their own writing-done whether by the teacher, their peers or even themselves. Writers who received comments and later improved on their writing based on the comments improved their writing performance.

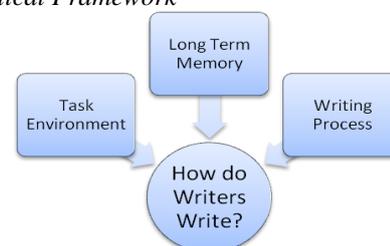
### B. The Writing Task

Another challenge writers may face is the writing task given. Some students are better at one genre than another. Some students write better because they have content knowledge of the task. Rosenfeld, Courtney and Fowles (2004)[7] agreed that the writing task given to the students is another important factor for the writer's success (of failure) in writing. When writers are clear about the writing demands, they can decide what help (or if they need help) to ask for in order to complete the writing assignment.

### C. Background Knowledge

Apart from having composing skills and understanding the writing task, writers need to have background knowledge of the topic of the essay. Having content knowledge will also give students the confidence to write. In addition to that, writers need to know the audience of the essay. Knowing what the audience expects from the essay helps writers decide what to add (or not add) in the composition. Hanizah and Moore (2003)[8] suggested that writing teachers include audience awareness as part of teaching writing. This is because when writers' know what the audience expect from the essay, they will include only what is relevant.

### D. Theoretical Framework



**Fig. 1. Theoretical framework of the study**

Figure 1 shows the theoretical framework of the research. This framework is an adaptation of the Flower and Hayes model (1981)[2] of the writing process. The model reveals the act of writing as comprising of three major elements and they are (a) task environment, (b) long term memory and (c) writing process. These three elements are then redefined into questions for the writers to reveal their act of writing.

a) *Task Environment*: This involves the things that the writer needs to consider, things outside the write, for example the topic (chosen by the writer or given to them),

the audience of the essay (the audience determines the way the writer writes), the exigency felt by the writer (what did the writer do if he/she encounters problems about the writing -before, during the process of writing) and also the written text.

b) *Long Term Memory*: According to Flower and Hayes (1981)[2], this memory involves the writer's background knowledge about the topic and also recognizing the appropriate information and deciding on the suitable writing plan to fit the rhetorical situation of the essay so that the contents is relevant to the audience.

c) *Writing Process*: The writing process involves the planning made by the writing before writing, translating ideas into words while writing, and later reviewing, evaluating and revising the essay before presentation to the audience.

#### E. Past Research on ESL Writing

##### a) *Research on Task Environment*

A research was done by Chadrasegaran (2013)[9] to determine whether the teaching of the expository essay genres and the thinking processes underlying these practices can improve the quality of students' essays. The study was done on 137 secondary school students (15 years old) from two Singapore public schools and seven English teachers. Instructions given were based on the key genre of the school-based expository and thinking processes for generating those practices were also done. The data was collected over 14 weeks of classroom lessons and each lesson lasted for 70-80 minutes. The researcher observed the discussion sessions as well as the activities prepared by the teacher. The findings revealed that when the students were given topics that were authentic to them, their writing performances improved. They gave less focus on adding the content, and more emphasis on making the content meaningful to the reader.

##### b) *Long Term Memory*

Bonyadi and Zeinalpur (2014)[10] explored EFL students' perceptions towards self-selected and teacher-assigned topics in writing. They studied 30 EFL adult students. The participants were asked to write a five-paragraph essay to elicit their perceptions on students' self-selected topic versus teacher-assigned topic. The time allocated was 90 minutes. This is a qualitative research and essays were analysed for emerging themes. The findings revealed that students preferred topics that they had knowledge of. They were comfortable retrieving information from their long term memory to write the essays. Given the choice, they would always opt to choose topics they are familiar with so they could support, organize, and classify their main idea from their long term memory. It was also found that when they write about their selected topics, they have high degree of motivation to write. Students also feel a sense of freedom when they write about self-selected topics.

##### c) *Writing Process*

The qualitative study by Green (2013)[1] explored novice ESL academic writing processes. Their research was based on these two research questions:

- How did the participants interact with texts in order to solve the cognitive-rhetorical problems posed by the assignments?
- How did the participants interact with other people in order to solve the cognitive-rhetorical problems posed by the assignments?

The participants of this research were three female participants from a BA degree programme in TESOL. They were given 3 assignments from January 2006 to March 2007. The data collected was a taped spoken journal (audio-log) and recorded interviews as well as textual materials (assignments, drafts, outlines) and recording or notes on individual tutorials. Findings revealed that the students used 2 distinct approaches: a planning approach & a drafting approach. This research revealed that successful writing may be a function of comprehensive and detailed planning. However, it does not depend on the validity of the approach used by the teacher but the level of investment given by both the teacher and students.

Another research by Johana Yusof, Nor Ashikin & Ahmad Shaari (2012)[5] investigated the benefits of using Facebook Notes as a platform for guided peer feedback during the four stages of students writing process. However, this study only focused on the pre-writing stage-writing the outline. The participants were 16 females and 4 males Semester 3 students from Diploma in Building (UiTM). The participants went through three main stages and they are the instruction of an academic writing process, feedback training and feedback exercise. After undergoing the three main stages, the students did their outline of their chosen topic with a partner and submitted it via e-mail. 6 outlines were chosen to be posted on Facebook Notes to be reviewed. Findings revealed that three out of six outlines showed improvement in their marks for pre- and post-test. The reviewers whose outlines were not reviewed also benefitted from this exercise as they showed overall improvement in the post-test marks. Students improved their self-editing skills by giving and receiving feedback. Many comments posted were less useful due to students' proficiency level and confusing instructions from the teacher.

##### d) *Writing Strategies Compared*

The writing strategies of students studying different courses will differ based on what type of writing they are required to produce. There are two types of writing that writers of different disciplines use and they are (a) writing-to-learn and (b) writing-to-demonstrate-knowledge style of writing (Michigan Department of Education, 2008)[11]. Writing to learn focus on critical thinking, requiring analysis and application, writing impromptu, short or informal writing tasks, use key concepts and ideas. On the other hand, writing-to-demonstrate- focus on the knowledge to be presented. Examples of such writings are reports, creative writings, expressive writing where students synthesize information and explain their understanding of concepts and ideas. According to Kovalyova, Lum & Warwas (2008)[12], Science and Technology students are trained to write reports, informative essays that are concise, precise and succinct. They write short, effective sentences. Social Science students write expository, informative, descriptive and sometimes narrative essays.

#### IV. METHODOLOGY

##### a) *Research Design and Research Approach*

This study adopted a quantitative approach with a descriptive research design in order to answer four research questions investigated in the study.

##### b) *Participants*

In total 519 respondents completed and returned the questionnaires. The respondents came from two streams of studies. The first field is Science & Technology which

included 497 students (95.67%) from four different engineering faculties (Chemical, Electrical, Civil and Mechanical). The second field is Social Science which included 22 students (4.24%) from the faculty of Business Management.

c) Data Collection

This study investigates the writing process of university students; in particular, how the process differed among students from different fields of studies. In order to collect the data, a self-administered survey questionnaire, drawn from Flower and Hayes (1981)[2], was employed to learn more about the respondents' perceptions regarding the way they carry out their writing tasks. The questionnaire was divided into four sections – (A) Profile (B) Task environment (C) Long-term memory and (D) Writing process. In sections B, C and D, the respondents were asked to use a three-point Likert scale (all the time, sometimes, never) to respond to several statements relating to, for example, how they chose essay topics, planned the writing task and evaluated their writing.

d) Data Analysis

Data from the questionnaires were tabulated and analyzed using SPSS 21. To assess the normality of the distribution of the data, a test of normality was carried out. The results from the Kolmogorov-Smirnov statistic indicated significant values ( $p=.000$ ,  $p=0.00$ ,  $p=0.00$ ) for the three sections (B,C,D), suggesting a violation of the assumption of normality. According to Pallant (2005)[13], this is common in larger samples. Tests were also done for each section to assess the internal reliability of the items. The Cronbach's Alpha values for each section were .512, .331 and .713. The t-test was then used to describe and compare the collected data. For the purpose of this paper, only a selection of the results are presented and discussed in the following sections.

V. FINDINGS

The findings presented here focused on investigating if the writing process differed among Science-Technology and Social Science students. Although much of the data here were self-reported and thus filtered through self-perception, the findings that emerged from this study are insightful. The result of the independent-samples t-test is summarized and presented below.

The results in Table 1 showed highly significant values across two sections, which were Section B and D, ( $p<0.018$ ,  $p<0.001$ ) indicating that there were significant differences between the mean responses of Science-Technology students and Social Science students. This meant the students from these two fields of studies most likely had different perceptions or approaches in their writing process. Each significant item will be reported in the next section to further highlight the differences between these two fields. However, for Section C, there was no significant difference between students from both fields.

Sections	F	Sig	t	df	Sig (2-tailed)
B	0.119	.656	-2.375	457	0.018
C	0.178	.674	-1.383	463	0.167
D	0.745	.389	-3.478	458	0.001

TABLE 1. Significant Values for Social Science vs Science and Technology

a) The Influence of Types of Programmes on Task Environment

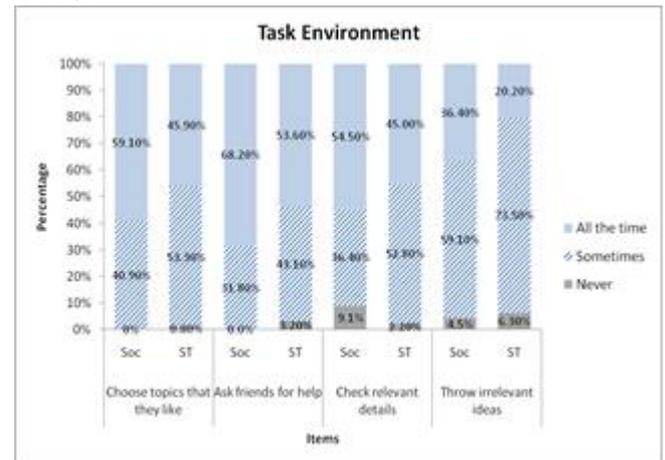


Fig. 2. Findings for Task Environment

In this section, there were four items that showed significant difference between the two fields. In choosing topics (Item B1), more than half of the Social Science students (59.1%) reported that they will always choose topics that they like, while the Science & Technology students reported that only sometimes they will try to choose topics that they like (53.3%). Another item that had significant difference was in terms of exigency (Item B8). Whenever they had problems about the topic, students from the Social Science (68.2%) preferred to ask their friends for help compared to the Science & Technology students (53.6%). In addition, another important finding was 9.1% of the Social Science students revealed that they never check relevant details for their paragraph while writing (Item B10). The number was higher compared to the Science & Technology students who never check the relevant details (2.2%). Surprisingly, even though the Science & Technology students always check for relevant details, only 20.2% always throw irrelevant ideas while they write (Item B11).

b) The Influence of Types of Programmes on Long Term Memory

As reported earlier, there was no significant difference observed in Section C (Long Term Memory). In this section, there were five items tested and the findings revealed that students from both fields used almost the same approaches and techniques in dealing with long term memory.

c) The Influence of Types of Programmes on Writing Process

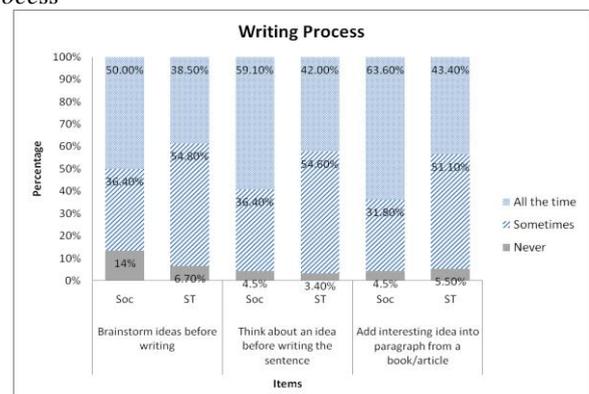


Fig. 3. Findings for Writing Process

In the writing process, there were three items that had significant differences between the two fields. In the planning stage, half of the Social Science students (50%) would brainstorm their ideas into categories before they start writing, while only 38.5% of the Science & Technology students would do brainstorming before starting to write. This also explained the second significant item (D24) in which 59.1% of the Social Science students reported that whenever they think of an idea, they would definitely consider and think about the idea before writing the sentence. The Social Science students also preferred to add any interesting idea that they like from a book or an article into their paragraph. This was shown through the percentage of 63.6% of them who reported that they would do so, as compared to only 43.4% of the Science & Technology students.

## VI. CONCLUSION

### A. Summary of Finding for Task Environment

Figure 4 below shows the summary of findings for task environment. Both Social Science and Science and Technology students asked for friends' help when they encountered problems in their writing. They also preferred to do topics that they liked. This finding is in accordance with the research by Bonyadi and Zeinalpur (2014)[9] who also agreed students felt a sense of freedom when they choose what to write. In addition to that, both groups of students threw irrelevant when they checked their work.

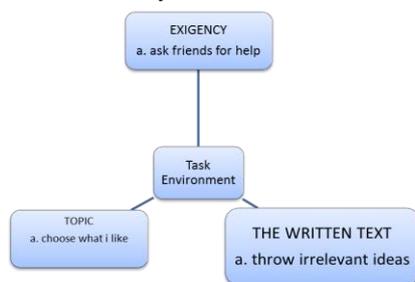


Fig. 4. Summary of Findings for Task Environment

### B. Summary of Findings for Writing Process

Figure 5 shows the summary of findings for Writing Process. Both groups were reported to brainstorm ideas before they wrote. They also depended on ideas from books and articles. Interestingly, only the social science students gave some thoughts to their ideas before they wrote. This finding agrees with the research by Kovalyova, et al (2008)[11] who found that Science and Technology students are trained to write reports and informative essays that are concise and succinct. This means they have been trained to write what is in their mind immediately, thus not leaving much space for focusing on the ideas or words.

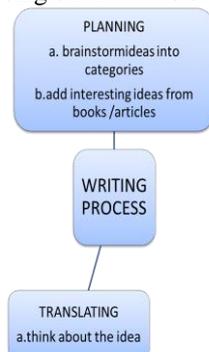


Fig. 5. Summary of Findings for Writing Process

### C. Pedagogical Implications

This research revealed that students did not consider the audience when they write. Perhaps writing classes could add the focus on audience expectation as part of writing strategies to be learned in the class. Be it students from Social Sciences or Science and Technology, writing strategies taught need not differ much-only the emphasis can be adjusted to suit different content areas.

### D. Suggestions for Future Research

It can be suggested that future research concentrate on effective and ineffective strategies used by writers from different disciplines. In addition to that, think aloud protocol could be carried out to investigate the different writing strategies used by writers from these different disciplines.

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