

The Academic Writing Experience of Undergraduate Industrial Technology Students in Indonesia

■ Ista Maharsi
Universitas Islam Indonesia, Yogyakarta

ABSTRACT: *This paper explores the academic writing experiences of undergraduate International Program students of Industrial Technology (IP FTI) at the Islamic University of Indonesia. Specifically, this paper discusses what the students think of academic writing, how they give meaning to it, interpret it and actualize themselves through it. The data presentation and analysis are based on the narratives of the research participants. The participants were four IP students (one student from each semester II, IV, VIII, X) and three lecturers. The data was taken from in-depth interviews (unstructured and structured interviews) with the participants, class observations and document collection. It was found that students went through the stages of the writing process with limited knowledge of writing skills, limited exposure to the reading materials of their discipline and inadequate feedback. The students perceived academic writing as part of their academic tasks that would be useful for their future careers. However, not all students were able to improve their academic writing on their own skills.*

Introduction

The need for mastery of academic English, both written and spoken, in higher education is becoming more apparent than ever before. The expressed need for good academic writing skills is significant in Europe because European students enter universities without adequate mastery over academic writing (Bruce, 2005, p. 239). Similarly, the recent, rapid emergence of international programs and immersion programs in Indonesia may serve as evidence that English is increasingly playing an important role in Indonesian society. In other words, to be successful academically, students must have a good command of English.

Additionally, university graduates will enter the job markets and encounter challenging communication situations. They have to be able to communicate their thoughts orally and in writing clearly in job interviews. Therefore, thinking critically, understanding complex issues in their respective fields of study, offering various alternative of solutions to those issues, and communicating their ideas effectively are crucial skills both orally and in writing, and need to be integrated in the day-to-day teaching.

The study reported in this paper investigates students' experiences in writing in an academic context in the field of Industrial Technology during their undergraduate studies. The study aimed to do this for two reasons. First, although English is the language of instruction in the teaching and learning processes, it has been observed that students encounter various problems in writing academic English. Second, from the students' experiences of writing in an academic context, several questions have been raised as to how they can be helped to perform better in their academic tasks. The study also makes suggestions for more effective academic English writing lessons.

This paper will discuss the International Program of Faculty of Industrial Technology of Islamic University of Indonesia (henceforth IP FTI UII) undergraduate students' experience in academic writing, what they think about it, how they get through their writing process, and what kinds of problems they encounter.

Literature review

Academic writing experience

As suggested by Hoadley-Maidment, academic writing could be described as writing that deals with academic subjects (Mercer & Swann, 1996, p. 295). As a subject, academic writing can be described as a genre of writing academic papers, general subject reports, essays, compositions, academically focused journal articles, short-answer test responses, technical reports (i.e. lab reports), theses and dissertations.

In terms of approach, while Jordan (1997) offers two approaches of academic writing, namely, process and product approaches, Seow (2002) divides writing process into four stages, namely, planning, drafting, revising and editing. Brown (2001), on the other hand, frames three stages of writing, which are pre-writing, drafting and revising, while Blanchard and Root (1997) divide the writing process into five steps, beginning with prewriting and moving on to planning, drafting, revising and editing. Finally, Oshima and Hogue (1999) categorize the writing process into four stages that include prewriting, planning, writing and revising of drafts.

Dewey (1958) views experience as knowledge that helps clarify needs and lived experience, according to him is also shared experience in which people learn together with others. Academic writing experience, therefore, may mean knowledge of writing in the academic context which is shared and clarified to understand needs significant to improve learning. This study investigates academic writing as a process in which stories or experiences of research participants who write academic papers and assignments are described, narrated, and interpreted.

Narrative research

Clandinin and Connelly (2003) defined narrative research as "a form of inquiry in which the researcher studies the lives of individuals and asks one or more individuals to provide stories about their lives (Creswell, 2003, p. 15). Additionally, Patton (2002) highlights that "the central idea of narrative analysis is that stories and narratives offer especially translucent windows into cultural and social meanings" (p. 116). The basic questions of revealing a story or narrative about a person and its humanity and environment are viewed as the core motivation in this kind of research.

Therefore, as this research is meant to be a narrative study, the analysis will be presented in the form of life stories detailing experiences and interests that serve as tools to reveal perspectives which communicate needs, convey circumstances and in so doing construct meaning. The stories of these research participants reveal their life experiences in a deep and meaningful way. Personal narratives of both the participants and the researchers are brought to surface through perception, interpretation and context to shed light on insightful experiences of social and cultural meanings.

Research method

Research design

There were seven participants in this research, four students (one from each semester II, IV, VIII, X), the program initiator, a content-course lecturer, and an English lecturer. The data was gathered from them through interviews, observations, and documents such as student papers and laboratory reports. This research attempted to understand the stories of the participants

about their experiences in academic writing, how they felt about it, how they gave meaning to it, how they figured out the difficulties and came up with their own solutions. Finally, the study also aimed to investigate how students motivated themselves and became empowered by all those meaningful experiences. In keeping with the objectives of this study, a qualitative research paradigm was employed so that rich details could be obtained through the life stories of the research participants. These detailed descriptions served to expose intermingled views on the complexities of the participants' life experiences (Holliday, 2002).

Further, Bloom (as cited in Merriam, 2002) explains that in narrative research, "how each narrative offers a means for the narrator to construct herself [or himself] through the act of narrating stories" was significant to enable the researcher to "make sense of the telling rather than the tale" afterwards (p. 310). For this reason, the process of how events were experienced, lived, and dealt with became an important aspect of understanding phenomena because the process provided explanations, reasons through the relationships established along the way. Hence, it was not simply the stories, but how the stories were connected, lived, and interpreted by an individual that gave meaning to this kind of research.

In terms of research validity—or what other scholars refer to as credibility, verification, transferability, authenticity, trustworthiness—strategies such as triangulation (rationalizing or connecting perceptions), thick and rich descriptions (deeper and thorough description), were sought to support the validity of findings (Creswell, 2003; Holliday, 2002; Leedy & Ormrod, 2005; Merriam, 2002). Comparing different data sources in search of themes, checking information with participants to get confirmation, examining rich details of experiences, seeking opinions from peers or colleagues in the field, presenting contradictory opinions or different perspectives in pursuit of revising explanation were all carried out to ensure a valid and reliable piece of research.

Procedure for data collection

According to Creswell (2003), data collection steps may "include setting the boundaries for the study, collecting information through unstructured (semi-structured) observations and interviews, documents, and visual materials, as well as establishing the protocol for recording information" (p. 185-186). He also suggested preparing interview briefs and observational protocols as well as keeping audio and/or videotape recordings as well as field notes. However, the choice of data-gathering tools may need to be adapted and adjusted along the way as and when the research context presents challenges (Holliday, 2002; Creswell, 2003). Furthermore, Creswell confirms that multiple methods of qualitative research can be employed together regarding interactive and humanistic characteristic. In line with this view, Miles and Huberman (1994) suggest the "snow ball method" when interviewing with consideration of emergent facts and problems. Therefore, class observations, document collection and in-depth interviews were not carried out in a linear pattern but rather at nearly the same time.

Based on Creswell's (2003) model, this research followed several procedures for obtain accurate data. First, preliminary interviews (see appendix A) was used to design a map of the research as well as to predict the unexpected problems; second, lists of questions were composed (see appendix B) for in-depth interviews based on the results of the preliminary interviews and literature; third, in-depth interviews were conducted with the research participants to gain narratives and interpretations of their life experiences; and fourth, class observations and documents were gathered to obtain the descriptions of behavior and important events. In so doing, probable emergent situations became more apparent.

The research reported in this paper gathered data from preliminary interviews, unstructured interview and structured interview. The in-depth interview data were recorded and filed. As soon as the interview data was gathered, it was transcribed and coded. Other data collection techniques included observation and document gathering. This time-consuming activity, indeed, provided narrative and descriptive information. Participant journal/diary, observation reports, and students' assignments were kept and later on used in data analysis.

Methods for analyzing data

This research followed the methods for analyzing data based on the theoretical framework of Creswell (2003) in which the generic process of data analysis may include several steps (organization of the data, data reading, coding, narrating description and themes, and interpreting). All data gathered was transcribed, coded and then selected. The coding process, in particular, was conducted through naming meaningful events that include time, topics, data source, participants, and categories of writing stages. A code of (Struct/Indah/03/07/07/PLAN), for instance, indicates that the data were taken from structured interviews with Indah on 3 July 2007 about planning her writing. Emergent categories were added when they could be used to support data to answer research questions. Data that showed connection with the research topic and eventually helped answer research questions was separated and categorized under headings. Commentaries and notes were compiled and collated to support the analysis of the data.

Results

The writing process can be a recursive, exhausting and complicated problem for writers, particularly novice writers or student writers. It is not surprising that the IP students of Industrial Technology experience the same challenges when writing their laboratory reports, papers, field work reports, and theses. Below are the results of interviews conducted with the research participants, which are arranged based on the writing stages: pre-writing, planning, drafting, revising and editing, feedback and evaluation.

Pre-writing

Students may start their writing processes in different contexts. First, after they have topics, usually determined by the lecturers; second, they are familiar with the topic; third, they are interested in a particular subject.

"The topic is determined... I just want to write familiar, easy topics, so that it will be easier to explore..." (Struct/Wawan/290507/PRE-TOPIC).

"The topic I usually write was determined by the lecturers..." (Struct/Nia/230507/PRE-TOPIC).

"Since the beginning, I did my internship and Field Work at a company and I want to go on writing more about this company and its system feasibility..." (Struct/Rini/010407/PRE-TOPIC).

"My supervisor suggested me to write on the topic..." (Struct/Indah/130607/PRE-TOPIC).

When topics are determined by the lecturers, students may not need to come up with their own ideas. Instead, they may only need to narrow down the topics to manageable ideas for development. In such a context, students may write on the topics minimally, just to complete their assignments as required by their lecturers. Consequently, their writing exposure gained may be limited to writing about something very specific. In this context, students then proceed to search for information in reference books, the internet or other sources. Students might prefer searching for information on the internet than books because students often have ready access to such information.

At this stage, they try to gather information that could be used to develop ideas to support their topic in order to be able to complete their assignment. In this research context, students brainstormed and seemed to be aware that they needed many ideas, evidence, and facts in order to raise the quality of their writing.

"I search information from the internet... I can also read reference books if I want to..." (Struct/Wawan/290507/PRE-BRAIN).

"I go to the library, look for reference books, and then I'll do it at home, using dictionary. I also browse the internet" (Struct/Nia/230507/PRE-BRAIN).

"After I find out the topic, of course the next thing I do is finding information on the same topics from books, and then from the company that I do research in..." (Struct/Rini/01/04/07/PRE-BRAIN)

"I search, learn, read, or may be I ask those who understand... I search in the internet, too, of course. I search in journals too, but not very detail, because I just need to find out the outline which will show how it may look like after it's developed..." (Struct/Indah/13/07/07/PLAN)

Theoretically, according to White and Arndt (1991), brainstorming is "a widely used and effective way of getting ideas flowing" (p. 18). It can be carried out individually or in groups. For Wawan, it seemed that his act of brainstorming was not really a necessary thing to do because he indicated that he searched for information from reference books when he wanted to. Nia, in comparison, seemed to be more familiar with sourcing for information and making use of several resources. Their understanding appears to be that brainstorming may be limited to finding information or ideas to start to write rather than connecting ideas to establish a mind map. However, the effort to get information on similar topics to enable them to "get the ideas flowing" in their writing was apparent. Even though the participants did not state "making a mind map," for example, they took notes on important ideas that might be used in their writing. Therefore, it can be assumed that they did brainstorm before they planned their writing although they might not have identified it as a part of preparing to write.

Planning

After they obtained sufficient information from the pre-writing stages, they began to select what would go first and next and what would become the background, the introduction, discussion and conclusion. To do this, they created guidelines for their writings.

"I grouped them just like stories, which one is first, which one is next... I make them connected..." (Struct/Wawan/290507/PLAN).

"May be I can make a guideline, in other papers; this is because of this or that..." (Struct/Nia/230507/PLAN).

"It's like a background... well, actually the lecturer describes a kind of background, then I just follow her. I put this and that, I choose which one as introduction, background, etc..." (Struct/Rini/010407/PLAN).

"I try to find things based on categories. I search, look, read, and I'm thinking of what will happen if I use this or that. I should try to find other categories..." (Struct/Indah/13/07/07/PLAN)

Nia made guidelines for her writing by trying to establish relationships among the ideas, while Wawan tried to connect them into "a story". According to Blanchard and Root (1997), within the stage of planning, the information and ideas are used to produce an outline. From the outline, a writer can develop his/her writing. The process of grouping ideas, how long they would have to write and which aspects need more emphasis are all parts of the writing process.

At this point, the participants began to understand the value of planning their writing before they actually plunged into develop the ideas and writing. They understood that writing needs information, opinions, and ideas that relate to their writing. They realized that they could not depend on their own ideas or opinions; rather they need many sources to enrich and support their writing. In addition, it seemed obvious then that they had come to the stage of categorizing their ideas into manageable sub-topics and planning their writing. It is important to note at this juncture that they had various "ways" of planning their writing, which were actually their

efforts at making their writing organized. This was their unique understanding of the process of writing.

Drafting

Drafting is the next step of the writing process after outlining. Within this part, according to White and Arndt (1995), a writer considers ways to attract readers and to maintain their interest in reading the writer's writing. In addition, Oshima and Hogue (1999) clarify that drafting starts with writing a topic sentence followed by detailed information. A writer should follow the outline and maintain unity as well as coherence. Referring to the idea of unity and coherence, there are two important things to consider, namely topic sentence (controlling idea) and supporting details. Those two aspects are essential to keep the paragraphs flowing and connected to one another. Therefore, determining topic sentences and supporting details are early steps in drafting.

"Gee,... I don't know. Randomly... sometimes, I put the topic sentences at the end of paragraph, sometimes all sentences in one paragraph are topic sentences, and there is a form like that, isn't it? So I just go on, I don't make any concept" (Struct/Wawan/090507/DRFT-CI/DRFT-SD).

"When preparing a paper, I arranged the points (controlling idea) and I tried to explain them in different chapters. Then, I also prepared supporting ideas..." (Struct/Nia/230507/DRFT-CI/SD).

"From the beginning, the main idea was at the beginning of the writing, so the next sentences should correspond to the previous ideas..." (Struct/Indah/130607/DRFT-CI/SD).

Wawan, Nia and Indah seem to understand the concept of a controlling idea and supporting ideas in different ways. In particular, Wawan was not sure whether what he wrote was the topic sentence or supporting details. The major difference between them is that Wawan seems confused about where to put controlling ideas as he may put the controlling ideas anywhere in his writing. Nia and Indah, however, seem to understand what comes first and next as they indicate the idea of providing subsequent details and considering the relationship between ideas.

In the drafting process, writers need to concentrate on organizing the ideas in their writing into the various sections of introduction, body and conclusion (Blanchard & Root, 1997). Accordingly, writers should understand how to construct a good introduction, a well-organized body and a summary that retains the most essential information.

In writing, a writer also needs to consider other opinions. In terms of citing other people's opinions into their writing, students tend to adopt a "copy and paste" approach which includes even the sources and only slight changes are made to the words. Wawan, for instance, admits that,

"Sometimes I take somebody else's opinions. I wrote them not exactly, I changed a little bit. I omitted a little bit and I added a bit." (Struct/Wawan/290507/DRFT-QPS).

However, in another instance when he had to write a report on the interviews of ten persons, he paraphrased and summarized their opinions.

"Once, I had an interview assignment with 10 people. I interviewed them, and then I wrote what they said. I wrote down what the interviewees meant. I just wrote. So, in short, I understood the meaning, later I would re-write them..." (Struct/Wawan/290507/DRFT-QPS).

Although what he did was contextual and conditional, due to his assignments, he had actually paraphrased and summarized. He seemed to have subconsciously presented other people's opinions using his own words. These skills, indeed, can be developed in order to improve his academic writing.

Two other students, Nia and Rini demonstrated quite different ways of quoting. While Nia preferred rewriting all ideas and never used her own sentences, Rini just modified one or two

words (Struct/Nia/230507/DRFT-QPS). Rather different from the other participants, Indah just decided that she would take the entire quote and use footnotes to document the sources of the opinions (Struct/Indah/130607/DRFT-QPS).

The above findings may reveal a fact that students need more explanations, practice and understanding on how to quote, paraphrase, and summarize to enable them to make their academic writing more effective, appropriate and varied. More importantly, the correct way to cite other people's opinions in academic writing is regarded as significant in terms of maintaining originality of thought, adhering to academic conventions and avoiding plagiarism.

Since in academic discourse plagiarism is viewed as "a serious offence" (Hyland, 2001), it is important for students to understand and apply the conventions of citing references. However, my data shows evidence that two teacher participants did not address the issue of plagiarism through written feedback on their students' writing. As a result, miscommunication may have resulted between what the teacher considered as a serious offence and the students' perception of plagiarism as mere "small mistakes."

The information that I obtained from Irene about plagiarism shows that she did not really push students to make good paraphrases. She just tried to encourage them to modify the sentences a little bit. The problem is that the idea of "a little bit" could be relative.

"I corrected the students' writing in terms of their word usage. I corrected their paraphrases, when citing other people's opinions, just a little bit. I just emphasized them not to write like a plagiarist. If they want to use all ideas, the way they should write must be different from paraphrasing." (Un-struct/Irene/120407/F&E T-CORR).

What Irene did was to actually inform the student that there were different ways to cite other people's opinions to avoid plagiarism. The only problem is that these citations conventions were not addressed clearly and comprehensively. In this case, students might think that the idea of plagiarism is not that serious as long as they make "a little change." Alternatively, students may not have had sufficient practice or exposure in how to paraphrase since this aspect was not emphasized or enforced.

Revising

The steps taken to add, rearrange ideas and eliminate irrelevant sentences are common practice among writers. When revising, a writer may change, rearrange, add or delete in order to communicate his/her ideas more effectively and interestingly (Oshima & Hogue, 1999). Based on the data, the research participants took the same steps such as adding ideas and sentences, eliminating irrelevant sentences, fitting words and ideas into readable, understandable and effective sentences based on their own perspectives. The words "based on their own perspectives" may suggest that the measurement of "an effective sentence" is set by the students. This also implies that what is effective according to them might not be effective based on language convention or at least the lecturers' assessments.

"Sometimes I add ideas... sometimes I eliminated irrelevant sentences... (Struct/Nia/230507/REV-ADD/ELMNT).

"I changed the sentences that I think not relevant, and then I corrected them..." (Struct/Wawan/290507/REV-ELMNT/REARR).

"If the lecturer wanted me to add ideas, I'll add. I also eliminate irrelevant sentences and moved ideas here and there." (Struct/Rini/010407/REV-ADD/ELMNT/REARR).

"I added sentences, eliminate some as well. I thought that the sentences seemed to be too long. Sometimes I also moved the sentences... (Struct/Indah/130607/REV-ADD/ELMNT).

It seems that the participants realized that they had to revise their writing. The revision could be done at the level of ideas and sentences. This stage of writing seems to necessitate recursive acts

as well since a writer may need to read his or her sentences and paragraphs more than once to obtain the flow of ideas.

Editing

Editing seems to be the final step in writing. When editing, a writer usually checks the punctuation, capitalization, spelling and grammar (Blanchard & Root, 1997, p. 55). From the data, it seems that punctuation and capitalization are not difficult for students. Still, correcting sentence structure may become a rather frustrating act.

"Revising deals with the content, while editing with the skin. I edited the spelling, capitalization... anything, periods, commas and everything." (Struct/Wawan/290507/EDIT-PUNC/CAP).

"I edited the writing afterwards. I checked the periods, commas, capital letters..." (Struct/Nia/230507/EDIT-PUNC/CAP).

"I edited the capitalization and punctuation. Capitalization is usually used at the beginning of sentences, or when there are special words... titles, cover [page], names of companies..." (Struct/Rini/010407/EDIT-PUNC/CAP).

"I edited the pages [for example] there shouldn't be only one page here then I would put them down on line. I edited the punctuation and capitalization as well." (Struct/Indah/130607/EDIT-PUNC/CAP).

From their narratives, Wawan, Nia, Rini and Indah seem to understand punctuation and capitalization quite well. Their good understanding on these matters should ease their writing process and may encourage them to improve their academic writing.

Feedback and evaluation

For the sake of improvement and empowerment, students require feedback on their work from the lecturers. According to White and Arndt (1991, p. 117), feedback from other people will be very beneficial if it is done at the drafting stage because the writer still has the opportunity to change his text.

Sometimes, students may also need to evaluate their own work in order to become autonomous learners. Lecturers, on the other hand, are expected to correct students' assignments as an instrument to improve students' writing. The correction may include both students' content and the language. Irene, for example, corrects both the language and the content; she even goes into greater detail with regard to word choices and sentence structure.

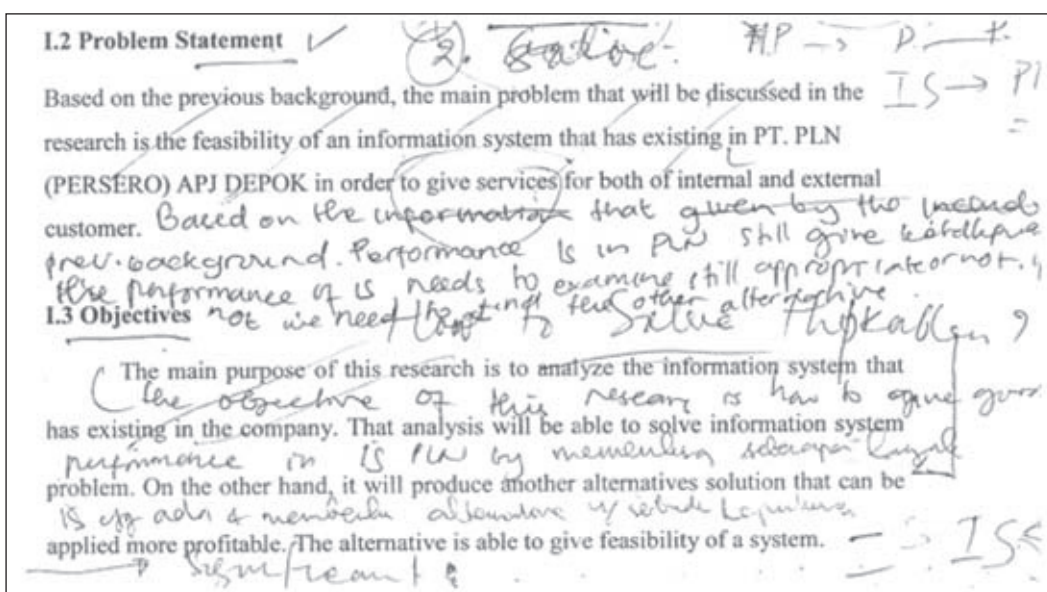
"I correct both the content and the language. But before I come to the content, I don't understand the sentences (Subject Predicate Object). So, the first step I do is 'clearing up the grammar' and the word choices. I show them the correct forms straightforwardly, because I don't want to do 'the job' twice." (Un-struct/Irene/120407/F&E T-CORR).

By contrast, Awan seems to pay more attention to the content because he assumes that content is more substantial than the language.

"I rarely comment on the language... it's because... what... only the content. I just... they are supposed to focus on this. So it's more on the content than the language... What I want is that the students can understand my subject; the language problems can be improved later on..." (Un-struct/Awan/190407/F&E T-CORR).

Irene tends to pay attention to the details of an assignment rather than "merely the appearance". It may indicate that she wants her students to write properly. She wants to show that language is such an important tool to convey meaning. It could be assumed that she recommended her students to write in correct language; otherwise, other people would not understand what they write.

Awan may have positive reasons for his action. Apparently, he does not want to discourage his students by focusing too much on their grammatical mistakes in their writing and speaking, as reflected in what he said, "... sometimes it [language] becomes the barrier, but I don't want to talk about the barrier itself at the first place." Therefore, he preferred to correct the content than the language. This might signify his encouraging approach towards his students' work. He thought that he could encourage students to do better by telling the students to write the content correctly while the language can be corrected afterward. The following sample shows the teachers' correction on some aspects of the language used in Rini's assignment on Research Methodology Course. The correction addresses language appropriateness, word choice, and content. In short, the lecturer appears to be enabling students to understand how to write through the practice of holistic correction. Perpignan (2003) asserts that "it is not the explicitly conveyed messages and their encoding that should be focused on by teachers and researchers, in order to generate better conditions for feedback effectiveness, but the intentions which inspire them and the means which promote them" (p. 271).



Concerning self-evaluation, students may just "take it for granted." Like Wawan and Nia, they even go to "extreme" where they never do self-evaluation intentionally. However, it is important to note that self-evaluation in this context means "giving values or grades" to students' own work.

"So far I have never evaluated my own writing. I did not know which one was wrong." (Struct/Nia230507/F&E-SELF EVAL).

"I never self-evaluate my own work..." (Struct/Wawan/290507/F&E-SELF EVAL).

In comparison, Rini appears to be the most aware of her own capacity. She tried to look within herself as to what she needed to improve.

"I thought about my own writing, it's not like what is written in books. I can't discuss directly, I always 'go round' from the same point again and again... I think I need more practices and read more. More experiences may be..." (Struct/Rini/010407/F&E-SELF EVAL).

Overall, lecturers vary in giving feedback on students' writing in terms of the content and the language. The lecturer may even go into further details when he/she believes that what he/she is

doing will be of great benefit to the students. Students, then again, will respond to the lecturers' feedback with their own objectives—interest, requirements, curiosity. Alternatively, they may ignore the feedback with the probable consequence of there being less progressive learning.

Discussion of results

This research was carried out to get a description and interpretation of the students' experiences on academic writing. The major finding that emerges from the data analysis is that students underwent several steps of writing including pre-writing, planning, drafting, revising and editing until they understood and perceived what academic writing is and how they should write academically. Their understanding on brainstorming, for example, was just limited to their perception that references were needed to get ideas to write. Brainstorming was perceived as "guidance" for developing ideas (Nia) and "a stage to compare, to map and to draw pictures of writing" (Indah). They did not infer further that references were required in academic writing to avoid plagiarism, a severe offense in academic context.

The planning stage was acknowledged by the students as a necessary step to organize their ideas through outlining, connecting, looking for relationships and following any available models given by the lecturers. The drafting stage turned out to be a long process that included various steps such as what should be presented, how the thesis statement and the supporting details should be expressed as well as how to achieve unity, coherence and organization in the text.

It was found that revising and editing were perceived as ways to make their writing tidy and organized (Indah) to be "good and readable" (Wawan). To some extent, students were confused about the revising and editing stages and did them at the same time as they were perceived as being similar in nature. Surprisingly, although word processors were of great assistance, it was still difficult for the students to use them to correct grammatical errors, particularly sentence structures.

The second finding was related to feedback given by lecturers. Students received feedback (both on the language and the content) from the lecturers when writing fieldwork reports, thesis proposals (in the Research Methodology Course) and theses. Only limited feedback was given to other kinds of assignments.

Lecturers tended to correct the content and mathematical results on laboratory reports and other content-course assignments that contained mathematical operations. There were different perceptions and emphases on what needed to be corrected. While awareness of the importance of both language and content was emphasized (Irene), reluctance and worry about discouraging students by correcting too much on the language rather than the content was a concern (Awan). Imam, by contrast, was concerned more about grammatical structures and the choice of words.

In sum, the students' experiences in coping with academic writing in their discipline resulted from inadequate writing practice, less than effective writing instruction, limited writing skills and feedback, and finally, poor understanding of the nature of tasks and difficulties in balancing their knowledge of the discipline and their language ability.

Conclusion

This study reported in this paper has examined the academic writing experiences of four undergraduate students of Industrial Technology and the perspectives of three of their lecturers on their academic writing. The students have attempted several types of academic writing tasks such as laboratory reports, summaries, fieldwork reports and theses, and have, therefore, been exposed to the various steps involved in the writing process. Interestingly, it was found that Nia, Rini and Wawan differed in their understanding about the writing process.

The lecturers often decided on the topics but in instances when students had to decide on a topic by themselves, they tended to write on topics that they were interested in or were familiar with. Some students brainstormed prior to drafting their writing, but made limited use

of resources such as the internet and textbooks. This evidence demonstrates the low motivation of students with regard to reading higher level journal articles when doing a writing assignment. Reading journal articles is important for them to understand the language and writing discourse in their discipline, the knowledge of which will help them develop their ability to write in their disciplines.

In the drafting stage, students found it difficult to come up with outlines detailing their topic sentences and supporting details. Wawan, for example, did not understand what topic sentences and supporting details were. In terms of unity and coherence, students seemed to understand what they really meant but they had difficulties in applying those concepts in their writing. Consequently, they used relatively limited transitional signals and at times they used them inappropriately.

The organization of ideas became another impediment in students' writing. While some students seemed to understand exactly what they needed to do with their ideas, others did not know which appropriate organization best suited their topics. Poor organization of ideas may have influenced the development of their ideas and to some extent may have distracted them from their purpose of writing.

Another common feature was that students tended to copy the whole sentences or phrases when citing other people's opinions or thought. This might have been because it was easier to do than paraphrasing and summarizing. Since lecturers' feedback dealt mostly with the content (although students expected their language to be corrected as well) because academic tasks in the field of Industrial Technology involved numerous mathematical calculations, students and teachers tended to pay less attention to the use of the language. This was deliberately contradictory to the argument that both the content and the language, within the context of English for Specific Purposes, were seen as equally important.

In conclusion, considering that the students' understanding of academic writing might have resulted from insufficient knowledge, practice, exposure, and the lack of clear lecturer' instructions as well as requirements of academic assignments, an improvement program aimed to enhance students' academic writing knowledge and to bridge different lecturers' instructions is deemed necessary.

References

- Blanchard, K., & Root, C. (1997). *Ready to write more: From paragraph to essay*. New York: Addison Wesley Longman.
- Bloom, L.R. (2002). From self to society: Reflections on the power of narrative inquiry. In S.B. Merriam (Ed.), *Qualitative research in practice: Examples for discussion and analysis*. San Francisco: Wiley
- Brown, H.D. (1991). *Breaking the language barrier: Creating your own pathway to success*. Yarmouth: Intercultural Press.
- Brown, H.D. (2001). *Teaching by principles: An interactive approach to language pedagogy*. (2nd ed.) New York: Addison Wesley Longman, Inc.
- Brown, H.D. (2004). *Language assessment: Principles and classroom practices*. New York: Pearson Education.
- Bruce, I. (2005). Syllabus design for general EAP writing courses: A cognitive approach. *Journal of English for Academic Purposes*, 4, 239-256.
- Clandinin, D.J., & Connelly, F.M. (2000). *Narrative inquiry: Experience and story in qualitative research*. San Francisco: Jossey-Bass.
- Cohen, L., Manion, L., & Morison, K. (2000). *Research methods in education*. (5th ed.). New York: Routedge Falmer.
- Creswell, J.W. (2003). *Research design: Qualitative, quantitative, and mixed methods approaches*. (2nd ed.). Thousand Oaks: SAGE Publications.
- Dewey, J. (1958). *Experience and nature*. Chicago: Open Court Pub.
- Hoadley-Maidment, E., & Mercer, N. (1996). English in the academic world. In N. Mercer and J. Swann (Eds.), *Learning English: Development and diversity* (pp. 283-304). London: Routledge.
- Holliday, A. (2002). *Doing and writing qualitative research*. London: SAGE Publications.
- Hyland, F. (2001). Dealing with plagiarism when giving feedback. *ELT Journal*, 55(4), 375.
- Hyland, K. (2002). *Teaching and researching writing*. London: Pearson Education.
- Jordan, R.R. (1997). *English for Academic Purposes: A guide and resources book for teachers*. Cambridge: Cambridge University Press.
- Leedy, P.D., & Ormrod, J.E. (2005). *Practical research: Planning and design*. (8th ed.) New Jersey: Pearson Education.
- Merriam, S.B. (2002). *Qualitative research in practice: Examples for discussion and analysis*. San Francisco: Wiley.
- Miles, M.B., & Huberman, A.M. (1994). *An expanded source book: Qualitative data analysis*. Thousand Oaks: Sage Publications.
- Oshima, A., & Hogue, A. (1999). *Writing academic English*. (3rd ed.). New York: Addison Wesley Longman.
- Patton, M.Q. (2002). *Qualitative research and evaluation methods*. (3rd ed.). Thousand Oaks: Sage Publications.
- Perpignan, H. (2003). Exploring the written feedback dialogue: A research, learning and teaching practice. *Language Teaching Research*, 7(2), 259-278.
- Seow, A. (2002). The writing process and process writing. In J.C. Richards & W.A. Renandya (Eds.), *Methodology in language teaching: An anthology of current practice* (pp. 315-320). Cambridge: Cambridge University Press.
- White, R., & Arndt, V. (1991). *Process writing*. London and New York: Longman.

Appendix A: Preliminary Interview Questions

1. Could you tell me about the process of establishing the International Program of Industrial Technology Department?
 2. Did you find any obstacle?
 3. What are the requirements for students who will enter the program?
 4. What are the general objectives of the International Program?
 5. How would you prepare for the students' English language ability since English is used as the language of instruction?
 6. What is expected from the graduates of the Program?
-

Appendix B: Interview Protocol

General understanding

1. How would you describe in general academic writing of International Program of Industrial Technology?

Products of academic writing (writing genre)

1. What type(s) of writing assignments are required in your courses and discipline?
2. What guidance do you get from your writing class?

Products of academic writing (writing genre)

1. What type(s) of writing assignments are required in your courses and discipline?
2. What guidance do you get from your writing class?

Process of writing

1. How do you start, develop and finish your writing?
2. What are your problems with process of writing?

Subject of writing

1. What topic do you usually write?

Purpose of writing

1. Why do you need to write academically?
2. How important is writing in your courses, program, and field?

Audience

1. Who do you write to?
2. When do you usually write?

Style

1. How do you use grammar, spelling, vocabulary, language appropriacy?
2. How do you organize your writing?

Students' responses

1. How do you respond to your lecturers' writing?
2. Do you think you are sufficiently helped by the writing class?

Lecturers' feedback and evaluation of students' work

1. Why do students need to write academically?
 2. What type(s) of writing assignments are required in your courses and discipline?
 3. What guidance do you provide on student writing?
 4. How do you comment on and evaluate student written work?
 5. What do you think about your students' writing?
 6. What kinds of strengths and/or weaknesses do you see in your students' writing?
 7. What aspects of writing do you think your students need to work on?
 8. What do you think is the role of content course lecturers such as yourself in helping students develop academic writing skills, i.e. writing for (discipline) purposes?
 9. What are some of the things that you can help your students improve in terms of their writing?
 10. How can writing courses (e.g., composition courses) better prepare students for writing tasks in content courses?
 11. Is writing for your discipline similar to or different from writing in another discipline?
 12. Is there anything that I did not ask but you would like to add?
-

