

**ABSTRACTS WRITING :  
A PATH FOR UNDERSTANDING ACADEMIC TEXT OF MATHEMATICS**

By

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***ABSTRACT***

*This is a qualitative study to explore the students' competence in pursuing of abstract writing among the undergraduate students of Mathematics department. The data were collected through classroom observation and self report. By applying self assignment, small group discussion, and presentation, the students' writing experiences were employed in order to discuss the weaknesses and strengths of the mathematic articles given during class discussion; whereas proof-reading, revising, and supervising were also critically provided. As the results, five classes that were involved in the investigation as the sample shows their abilities in applying their best practices based on the suggested method. The results indicate that the undergraduate students of Mathematics were able to reconstruct their ideas in the form of abstract feature, while the abstract writing method was possibly applied in the course of Mathematics.*

**I. Introduction**

This is about classroom research where the problem first appeared that the students are poor in writing so that they need to know and to practice it systematically since they live in an academic situation. Practicing, proofreading, revising, and supervising are the methods that are served to build the character of writing skill. Practical and rich of exploration in order to produce standard writing, especially in abstract for Math studies-that is research result of the Mathematic issues coming from the classroom

interaction, and of course, it must be written in English.

Even English is only taught as secondary subject, though; in fact I do believe they are good in it. What they need is supervisor. This is a must since graduate students will face international standardized school, both junior and senior high schools, in which English are one media in learning situation. One way is facilitating them how to write abstract in English.

The topic was selected due the lack of information related to English abstract

writing. The first reason is that abstract writing is uneasy work unless personally driven motivation drills it. Second is that no systematic tool provide them supervision, even in the curricula. It is, therefore, the abstract writing course needs to be provided this term. The last reason is a hope. Big deals come true in which English abstract is possibly applied in Mathematics department of Unswagati in the year of academic as the application of the research. Thus, the research question of the study were (1) is abstract writing familiar to the second year students?, (2) is abstract writing possible to be given to the second grade?

## II. Related studies

### Academic versus non-academic writing

No-one denies that both terms are different in term of the addressee, the process, and text structure. This is because, first, the addressee is different. The academic writing is prepared and served for academic setting in which lecturers, students, and researchers are the main actors who write, read, and rewrite it so that finally they can inform it to the societies in order to improve the quality of life.

Since to write is difficult, it is important to know and to ensure that it is much better to start writing in library rather than in the class (Keith, 2006). This is because library serves more available sources so that the students beside its good atmosphere feel free to read, write, proof-read, and editing. Meanwhile, the supervision goes with the process. It will be more benefit to think that academic writing and daily writing are different.

It must be acknowledged to whom the text will be read by since different reader is

different orientation, and of course, different in thinking. These are why the academic writing and daily writing are not the same. It is, therefore I focused on the academic writing because abstract writing is closer to academic setting. Non-academic writing is usually recognized by life-writing.

In addition, "Academic writing is not just about conveying an ideational 'content' (Ken, 2002; Budgell, 2008). It is also about the representation of self. Recent research has suggested that academic prose is not completely impersonal, but that writers gain credibility by projecting an identity invested with individual authority, displaying confidence in their evaluations and commitment to their ideas. The study shows that the notion of identity in L2 writing by examining the use of personal pronouns in 64 Hong Kong undergraduate theses, comparisons with a large corpus of research articles, and interviews with students and their supervisors. The result shows significant underuse of authorial reference by students and clear preferences for avoiding these forms in contexts which involved making arguments or claims. He concludes that the individualistic identity implied in the use of *I* may be problematic for many L2 writers. (Ken, 2002). *But, in this study, this phenomenon was put in post-writing- a part of the supervision.*

### Writing Process

Some activities should be applied during writing such as prewriting, writing, and post-writing (Keith, 2006). In prewriting, drafting is essential to put direction where the content will be. This is pure individual. In the next

step, in writing process, proof-reading and editing determine the quality of the text. The role of small discussion within partner or group is important to justify the result of the process. Finally, postwriting, the important part of the process quality of the text is justified by the lecturer. Final comment and revision are made before publishing (*Zimmerman, J. Barry & Kitsantas, Anastasia. 2002*)

Recent studies which were conducted in eighty-four high school (*Zimmerman, J. Barry & Kitsantas, Anastasia. 2002*) practiced in posttest writing revision skill, self-reactions, self-efficacy perceptions, and intrinsic interest in this skill. The results indicated that attributions of deficient performance to strategy choice was positively correlated with self-reactions, self-efficacy beliefs, and intrinsic interest whereas attributions to ability or effort were negatively correlated with these measures. Self-recording enhanced writing skill, self-efficacy, and self-reaction beliefs significantly

### **Generic structure of the abstract writing**

An abstract determines the interest of the readers (Budgell, 2008). This leads whether the abstract is worth reading or not. Therefore, an abstract is an outline of the objectives of study and of its rationale of the research. The materials and methods of the study are stated with the statistical methods used. The results of the research should be concisely stated. A brief interpretation with the supporting statistics is provided; whereas conclusion is briefly stated.

### **English writing skill of the students of Mathematics Department**

This abstract writing course is, up to this semester. The new course is introduced to the class since all abstracts of the papers have been written in Bahasa Indonesia (Indonesia Language-our national identity). Nowadays, I assume, the students of Mathematic Department are critical thinkers that they work as well as their writing. Lecturer's role in the classroom supplies important contribution to build the character of critical reading and writing, especially in an academic setting. To enrich and to characterize critical and writing skills needs to think of technology. This is true since the students, nowadays are customized to use media in their lives. And it is moreover, in academic situation. It is a trend and is a need.

The use of technology in academic setting of the students has been explored in many investigation. One of them is a computer-based learning. Several examples of computer-based applications are highlighted to illustrate ways technology can enhance how children learn by supporting four fundamental characteristics of learning: (1) active engagement, (2) participation in groups, (3) frequent interaction and feedback, and (4) connections to real-world contexts (Roschelle, Hoadley, Gordin, 2000)

### **III. Methods of the research**

Five classes were involved in investigation. Some techniques and strategies were introduced to the classes in order to see the most affected class is. In the experiment which all were taken place in mathematic classrooms, some techniques were initially

applied. In the data analysis, a qualitative review and assessment were used. There were four stages I used in the experiment. At first stage, the students were instructed to look for some papers, to read them, and to summarize them. The second stage was that the students had to write the summary shorter. The draft is constructed in the same way as the abstract, in fact. After the draft of an abstract was right written under small supervision of the lecturer, some classmates were invited to read the draft. Some corrections and additions were made, then. The third was proof-reading. The writer was directed to reread the draft. Since it took times, to let them work independently is more effective. Rather, they were forced to finish reading in time. But, it is of course, done by the time limitation. The last was revising before the draft was published and collected.

#### IV. Finding and discussion

##### 4.1. To know whether the abstract writing familiar to the second year students

It is the fact that the students were familiar to abstracts even in different context of learning in which this abstract-writing learning were intended. An abstract, as they knew, is a kind of resume. It is a summary this was as the classroom chat occurred. This is one indication that abstract writing at least has been learned before even in very limited point of view.

##### 4.2. To know whether abstract writing possible to be given to the second year students

The findings are served in five parts. *The first* is -to start writing is to start reading. It is important for the students have enough reading experiences before they take this course since they will, at least, know the structure of the text. The result shows that the students were able to be independent readers. This is also a fact that the students will be easier to start writing whenever they are stimulated in such way, which is prewriting of abstract. *The second* is-practice of writing. The data shows that during the class, students were drilled to write abstracts based on the reading text they had and it worked well. The finding shows that during the draft writing, almost 80 percent of the students who did draft the abstract have better text. *The third* is proof reading. That the students felt free to read other's text is another finding. This is a good result to train them not to satisfy first, until some comments were made on their text or draft. *The fourth* is revising. The students used to show their revised text after proof-reading. This is also other finding that the students were happy to show their products. *The last* is supervising. This step is supervisor's hand. Lectures read the last draft and made a little comment on it. It can be said that the process ran well.

#### V. Conclusion and Implication

Finally, it can be concluded that first, the students of Mathematic department were not familiar to abstract writing in their daily activities, even they often write reports of such campus activities. Second, the possibility arose when the classroom was stimulated in systematic method. Thus, the students knew to write independently in their small group.

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