

AN EFFORT OF CHEMISTRY GRADUATE STUDENTS PUBLISHING AN ARTICLE IN SCOPUS-INDEXED JOURNALS

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Abstract

The global competition between universities encourages an increase in the number of article publications in various international journal publishers. The demand to have article publication is unequal with the ability of academic writing skill, primarily by graduate students who are mostly novice writers. This study aims to determine the efforts of postgraduate students to publish their articles in reputable international scientific journals in the framework of the process of academic writing. This study used questionnaires and interviews as a method to obtain data from graduate students majoring in chemistry who have Scopus-indexed article publications. The chemistry graduate students have difficulties in finding a topic, organizing paragraphs, revising the article, and proofreading. This study is expected to be a reference for academics who want to have Scopus-indexed publications and can be developed into teaching materials to provide practical steps for students in writing.

Keywords: international publication, academic writing, chemistry graduate students

Introduction

Writing an article to be published in Scopus-indexed journals is not a simple task. Students may have difficult experience in article writing. Moreover, lecturers also dealt with the difficulties of writing articles viewed from the low level of publication. Indonesian academics have difficulty writing to be published in national-accredited journals (Arsyad, 2016). The condition will be more challenging in writing article to be published in reputable scientific journals such as Elsevier, Springer, or Routledge that demanded excellent quality articles (Arsyad, 2017).

Having publications is essential for academics' life. Adequate academic writing skill is necessary for writing an article. A qualified article will earn real credit for scholars' reputation and career (Jiang, 2015). Having a positive credit is inseparable from the difficulties. Especially for non-native speakers, they have higher pressure from universities to have publications that associated with their academic career (Jiang, 2015).

The difficulties experienced by scholars vary according to their background. Several previous studies have shown the distress due to the high standards of the article requirement (Flowerdew, 2007), the English language ability (Curry and Lillis, 2004), and the negative feedback from the reviewer (Hewings, 2006). Scholars, especially novice scholars, must overcome these challenges to gain positive credit from the academic community. If they are failing to overcome the challenges, they will dwarf academic confidence as they are unable to compete in an international community.

About international publications, this study contributes to the knowledge of the attempts to publish articles in Scopus-indexed journals. This research took the subject of graduate chemistry students as a non-native speaker in one of the state universities in Surakarta. This research uses a framework of academic writing process approach to finding out what challenges faced by the respondents. The framework of the academic writing process became a

reference in the questionnaires and guided interviews construction.

Understanding the concept of academic writing is vital in writing articles. By having sufficient academic writing skills, students are expected to be able to produce qualified articles. The framework used in this research is the process of academic writing (Bailey, 2011; Murray, 2005; Nation, 2009; Trzeciak & Mackay, 1998). The process of academic writing contains pre-writing included writing purpose, reading: suitable sources, key points & note making, planning. Drafting included organizing paragraphs, references, and quotations, paraphrasing, avoiding plagiarism. Revising included re-writing and proof-reading.

Students should have effective strategies in writing an article. In the pre-writing process, students must define their purpose of writing, read related references, take note of the crucial information, conduct brainstorming, and create an outline. Meanwhile, drafting process students must have the adequate ability in writing the paragraphs, referencing related information, paraphrasing the information to avoid plagiarism. Moreover, revising process plays an essential role in article writing which includes re-writing the draft based on the revision process or reviewer feedback as well as conduct proofreading.

Methodology

This research was conducted on a micro scale in the form of one class of graduate students majoring in chemistry at one of the state universities in Surakarta. This study employed a purposive sampling technique that focuses on students who had publications in Scopus indexed journals. Data were collected in two ways: open-ended questionnaires and guided interviews. The questionnaires and open-ended interview guidelines are based on the framework of the academic writing process (Bailey, 2011; Murray, 2005; Nation, 2009; Trzeciak & Mackay, 1998). Data obtained from the questionnaire was followed by

interview method to obtain the comprehensive description. Data were analyzed qualitatively and presented by decrypting the results of the study.

Findings and Discussion

Based on the data obtained, this study shows some of the challenges faced by students in their efforts to have publications in Scopus-indexed journals. The questionnaires and interviews revealed that not all the parts that included in the process of academic writing to be a challenge that must be faced by students. The process of article writing begins with topic determination. Students have challenges to determine the research topic. Topics are essential because they are the basis for conducting research.

Determination of topics conducted by respondents cannot be separated from their supervisor research project. Supervisors had a significant role in the topic determination because the topic must be in-lined to their research project. Research in the field of chemistry requires a considerable cost so that respondents choose to take part in supervisors' research projects. Respondents need to adjust their interest to the subtopic offered in the research project.

Reading related sources surprisingly does not become an obstacle for the respondents even though they are not from English majors. The references they read are international journals that use English. Respondents do not have difficulties in understanding the article if the topic is still by their field. However, if the topic is a new topic, they will experience obstacles in understanding it. Respondents use electronic dictionaries to assist them in understanding related references.

Respondents have obstacles in the last process in pre-writing that is outlining. Respondents should be able to maintain the coherency of the writing framework. In addition, respondents should also adjust their draft design with supervisors. The counselor repeatedly rejected the outline offered by the respondent with various feedback. Among

the feedbacks are less detailed outlines, lack of reference sources, and less coherence outline.

Turning to the drafting process, respondents have some challenges in this process. Organizing paragraphs become quite tricky for respondents regarding their ability to write in English. Respondents feel less confident about their writing skills when associated with the use of specific scientific terms. In addition, the inter-sentence and inter-paragraph linkages also become the difficulties felt by the respondents.

The ability of academic writing has a significant effect on the ability to write articles. Respondents have barriers in the paraphrasing process. They have an inhibition in conveying the information they are reading into their understanding. With poor paraphrasing ability, their draft has high levels of plagiarism result when they performed plagiarism checks with the software.

The final process in article writing that becomes a challenge for respondents is that of rewriting and proofreading. Respondents experienced a challenge in understanding what the reviewer meant when giving feedback to the respondent's article. In addition, the review waiting time also hampered in the process of rewriting. In addition to the process of rewriting, proofreading also becomes an obstacle for the respondents. Proofreading is related to the ability of English proficiency. Furthermore, the cost of the proofreading process is also a challenge for the respondents.

The challenges faced by respondents derived from several causes. The experience becomes an essential key in article writing (Flowerdew 2008; Salager Meyer 2008; Swales, 2004). Respondents are novice writers who need more practice in article writing. Sufficient research experience will also encourage respondents to be more confident in writing articles. English proficiency (Curry and Lillis, 2004) is also an essential point in the ability to write

articles. Language skills play a role in writing the article respondents based on scientific vocabulary that must be compiled into an effective and clear sentence.

The overcoming strategies that respondents conducted in dealing with these challenges were taken in various ways. Internally what respondents conducted was read articles reference more, use the applications such as: Google translate, Grammarly, Turnitin to support them in the process of writing articles, and using research gate portal to discuss the problems they face. Externally, mentors play a significant role in overcoming the challenges faced by respondents. Determination of topic, provision of research, quality improvement of articles through discussion and guidance, and proofreading is external assistance obtained by respondents.

The critical success of respondents in overcoming the challenges faced in article writing lies in the research group by the chemistry department. The research group is the initiation of mentors to work together with students to be more productive. Respondents had clear time targets monitored in the research group. Each week the respondents must report their research progress within the research group. Problems that raised during research and article writing would be discussed in this research group to be solved together. Supervisor and respondents were willing to work well together so they could be more productive than other majors could.

Conclusions

Having a published article in Scopus indexed journal is a long way process. Students need to have adequate English skills and sufficient writing skills. Challenges will always appear in article writing. This study pointed out the graduate students of chemistry program had challenges to find topics, organize paragraphs, revise articles, and proofreading. Overcoming strategies were conducted with internally and externally. Internally, students conduct several strategies such as reading

more references, using application assistant, and using research portals. Externally, the mentor plays a major role in the success of the student articles for publication in the Scopus-indexed journal. Research groups also play an important role in the productivity of students to produce qualified research articles.

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