

## THE ASSESSMENT OF ENGLISH TEACHERS' ABILITY TO WRITE A SCIENTIFIC ARTICLE IN ENGLISH

**Ardi Marwan**

Language Center of The State Polytechnic of Pontianak  
Jln. A. Yani, Pontianak 78124, Indonesia  
ardirini@yahoo.com

**Received:** 19<sup>th</sup> April 2016/ **Revised:** 5<sup>th</sup> June 2016/ **Accepted:** 4<sup>th</sup> April 2017

**How to Cite:** Marwan, A. (2017). The Assessment of English Teachers' Ability to Write a Scientific Article in English. *Lingua Cultura*, 11(2), 109-114. <http://dx.doi.org/10.21512/lc.v11i2.915>

---

### ABSTRACT

*This article presented results of a study investigating several English teachers' ability to write a scientific article. This was a qualitative research with respondents of 25 English teachers who were currently pursuing the masters of education study at a university in Kalimantan. The data were collected through the analysis of teachers' articles and interviews with some of the teachers. The results reveal majority of the English teachers experienced difficulties producing articles ready to be published in good scholarly journals. Lack of scientific article writing experiences or practices and teachers' English writing competence have been the major contributors of their inability to write good articles. This study, therefore, recommends the provision of relevant professional developments for English teachers to further improve their scientific article writing competence.*

**Keywords:** English teachers, scientific article, scholarly journal

### INTRODUCTION

Being able to publish scientific articles to be published in scholarly journals and preferably to be well recognized international journals, is the expectation of many researchers and educators across the globe (Belt, Mottonen, & Harkonen, 2011). According to Soule (2007), there are several reasons accounting for the expectation. First, publishing an academic article or manuscript to a journal will make a person known to the peers working in the same field. Second, publishing an article is also considered an effective way to disseminate knowledge or empirical data to the wider audience. Third, getting the article published in good journals is also a common practice for a person wishing to pursue a career as an academic faculty in the university.

Like many other developing and developed nations, Indonesia is now taking the issue of scholarly publication very seriously. The government, for example, is offering a quite significant amount of money (around 50 million rupiahs) through publication grant to any Indonesians who could publish their article in a good international journal (e.g., ISI Thompson or Scopus indexed). More incentives will be provided if the article appears in a high impact factor journal. Prior to this policy, a similar yet lower incentive is also provided but only for lecturers of universities or other similar higher institutions (e.g., polytechnics, teacher

colleges, etc.). Now, everyone in the country may gain such a benefit. Teachers of English, particularly, may have a greater chance to be granted the incentive since nearly all international journals accept articles written in English only. However, to date, there is little evidence about whether they have all the knowledge and skills necessary for writing a good manuscript and publishing it in an international journal. The current study, therefore, seeks to identify such evidence by assessing the knowledge and skills of English teachers to write for a scholarly journal in English.

Hengl and Gould (2002) have borrowed the idea of O'Conner and Woodford (1976) point out that a scientific or research article is a technical document that describes a significant theoretical or observational extension of current knowledge, or advances in the practical application of known principles. This type of writing is, therefore, differs from the other kinds of writing, such as novel and essay. Particularly, it requires a writer to apply a certain structure or style. According to Perneger and Hudelson (2004), the basic structure of a typical research paper is the sequence of Introduction, Methods, Results, and Discussion (sometimes abbreviated as IMRaD) (Kotze, 2007). Accordingly, if a person willing to get his work published in a good scholarly journal must have the ability to write well in this basic structure of a paper.

As the first component of a research article, the introduction is considered as one of the most significant

sections of the paper since it provides information about the research background. In the introduction, an author should clearly state the problem and provide a reason why the study is important to be carried out (Elsevier, 2005). It also needs to relate to the current knowledge as well as identify the gap in the existing literature, and one way of doing it is by explaining. "What has been done in the area and what needs to be done" (Corbett, 2007; Hengl & Gould, 2002).

The method is the next section of a research article. Some journals may require a section for a literature review and several others consider unnecessary as it can be included as part of the introduction. The current study chooses not to argue on this matter since both still see the importance of literature review. The method section of an article, according to Kallet (2004) provides the information by which a study's validity is judged. Therefore, it requires a clear and precise description of how a study is done and the rationale for why specific procedures are chosen. The methods section should describe what is done to answer the research question, describe how it is done, justify the selection of design, and explain how the results are analyzed.

Consistent with Kallet, Elsevier (2005) argues that there should be enough details in the method section since such information is necessary particularly for other researchers who wish to make a replication of similar research. The information can also be used to assess whether the methods justify the conclusions. Then, the simple past tense is usually the tense used for this section. Further, it is argued by Elsevier that the appropriate authors need to explain where the strengths and weaknesses of the chosen method, how they select the subjects and how they deal with the ethical issues of the study if it involves humans.

Next, in the results section of the paper, as argued by Hengl and Gould (2002), the authors need to provide the summary of research findings and to facilitate, graphs, or tables may be used. It is not necessary to report all the results, but the focus should be on giving emphasis to the most significant findings as well as making the clear separation between theirs and others' work. The whole idea is the results should be reported objectively, clearly, and logically (Kallestinova, 2011). This is the section where authors simply report what they find, and their interpretation of the study results should be made the discussion section of the paper (Elsevier, 2005).

Discussion sometimes can be put together with the results, making its results and discussion or with conclusion making its discussion and conclusion. Further, it is suggested by Elsevier (2005) that the discussion should explain how the research has moved the body of scientific knowledge forward. The conclusions must be supportable and not extend beyond the results, so avoid undue speculation and bold judgments about impact. This is also a good place to suggest practical applications for the results and to outline what the next steps in the research will be.

Once authors become knowledgeable with the basic structure of a scientific article, they need to develop a good understanding of another important supporting component which is abstract. According to Andrade (2011), authors of a scientific article usually need to write an abstract consist of 200-250 words covering background, methods, results, and conclusion. Background or introduction, as he argues, is the section in an abstract which has the fewest words (e.g., 1-3 sentences) and usually, it contains information about the intention or purpose of the study. The methods section is the part of an abstract which provides the readers the information about the research procedure. So, the

information about the participants, data collection, and analysis should be included in this section. Andrade (2011) points out that the results section is the most important part of the abstract and nothing should compromise its range and quality. This is because the readers who peruse an abstract do so to learn about the findings of the study. The results section should, therefore, be the longest part of the abstract and should contain as much detail about the findings as the journal word count permits.

Finally, the conclusion is the section in which an author should carefully write since it contains the most significant message of the research that he or she wants the readers to convey. Usually, the finding highlighted here relates to the primary outcome measure. However, other important or unexpected findings should also be mentioned (Andrade, 2011).

The present study aims to assess English teachers' ability in writing good scientific articles. Therefore, the research questions of this study are worded as follows; (1) How is English teachers' scientific article writing ability? (2) Having known their ability, how ready are they to write good scientific articles?

There are several reasons making this study significant. Indonesia seeks to enhance its educational competitiveness level in the world arena, and one effective way to achieve this ambition is through the intensification of publication of articles into well-respected scholarly journals. The ability of educators, such as English teachers to write good articles need to be identified to support the government publication intensification program. Next, there is little information from empirical research regarding the ability of English teachers from Indonesia to write good articles for scholarly journals. Thus, the results of this research will contribute to the area which is still understudied.

## METHODS

This was a qualitative research seeking to assess the scientific articles written by many English teachers. 25 English teachers who are currently pursuing the masters of education study at a university in Kalimantan were invited to become the research participants. All these teachers were requested to write a research article of around 3000 to 5000 words using their own chosen topic. They were also allowed to reproduce their undergraduate thesis in the form of a short article. All the participants wrote the article as part of the requirement to pass the scientific writing and presentation course which was one of the courses offered in the masters of English education program. They were given four months to complete the task and submit the article.

Since this study was focused on the assessment of participants' article writing, the main data collection tool was the document analysis. However, to understand the case better, the unstructured interview was also employed. Some teachers of this study were questioned about their article writing experiences. To analyze the research articles, the table of research article section (RAS), main functions, preferred style, and related rules of thumb produced by Hengl and Gould (2002) was used. Then, to interpret the interview data, a thematic analysis strategy was used where the general themes or patterns were identified from the data.

The primary data of this study were gathered through the samples of English teachers' scientific articles. The information obtained through the interviews was also considered.

## RESULTS AND DISCUSSIONS

Writing an introduction of a scholarly article seems to be the most challenging task for the participants of this study. The participants, except two persons, fail to link their study with the existing research. They only concern with the practical problems which they come across in their classrooms and are unable to argue if similar cases have been identified in other contexts. The failure also makes them fail to argue about the uniqueness or newness of their study within the research arena. In other words, it is difficult to say whether the study would fill the gap in the growing body of knowledge. Below are two chunks of text taken from the introduction section of the article written by the English teachers.

*The students of SMP... especially the seventh-grade students had the difficulties in comprehending the text especially in procedure text. Some of the students may find that reading comprehension activities in classroom tend to be boring. As a result, they do not enjoy the activity and as the next result, they will get nothing in their reading activities.* (ET1)

*Based on the researcher's experience in the daily teaching learning activities, writing may look difficult and complicated for the learners. They have difficulties in creating the text and developing the ideas. In every writing composition task, most of the students cannot reach the minimum passing criteria ...* (ET2)

Results of this study also reveal that most of the teachers write a classroom action research article and therefore, as they argue, the problems that they chose for their study and wrote in the introduction section are the ones that are directly related to their teaching. They have no idea if research-based research problems could further improve the quality of their article. As two of them commented:

*I am only interested in writing an article based on the outcome of my classroom action study. First, action research helps me find the best approach to educate my students and second, the other types of research are not recognized by the ministry of education and culture. If the teachers choose other designs, their articles will be considered for their promotion purpose.* (ET5)

*I have no idea about a research-based research problem. All I know is that the research problems are the ones that I encounter in my classes. That is why, I only say the things that I experience in my own teaching.* (ET7)

Despite their inability to link their research with the existing similar studies, the participants could demonstrate a good understanding of introducing the research focus and highlighting the research purposes or objectives. Nearly all of them start the first paragraph of their introduction with the general idea associated with their research focus. For example, one teacher who chooses a research title of *Improving Students' interest and Participation in Reading Activities through Picture Word Inductive Model Strategy* starts her first introduction paragraph by writing "One of

*the aims of the Indonesian year nine textbook is to develop students' reading comprehension. So being knowledgeable about reading comprehension is imperative (ET6)." Another could write the purpose of his study quite well as he/she writes:*

*This paper investigates the difficulties faced by the year-twelve students at school A in Pontianak in improving speaking skills in practical lesson through co-teaching and to give input for more successful English learning and teaching process. Especially in practical lesson at this school through co-teaching.* (ET8)

Another major problem is identified with respect to the teachers' ability to write introduction using good English. A lot of sentences are poorly written and some of them are listed. (1) The researcher interested to know their attitude which marking the attention.... (2) The students are felt Mathematic more applied when they try count money... (3) This understanding can be reach if ... (4) Paper dictionary defines as a list of word... (5) There is significant different between the control and experiment group.

In point 1, it is evident that the author missed 'is' or 'was' before the word 'interested'. He also has a problem in using the right verb 'marking' after 'which'. The correct verb would be 'marks' or 'marked' or simply 'marking' without 'which'. In point 2, 'are' is not needed, so it must be deleted from the sentence. 'Mathematic' requires s and should be written 'mathematics' and be 'was' is needed followed with 'applied more' and not 'more applied'. Then, the word 'counting' should be used after verb 'try'. In point 3, the correct formation should be 'can be reached' not could be reach'. In point 4, the sentence should in passive not active voice. Thus, the correct one is 'paper dictionary is defined as'. The last point indicates that the author has no idea about the noun form of the word 'different'. The sentence should be written 'there is a significant difference ...'

The incorrect use of tense is found to be the major barrier experienced by the participants when writing the methods section of a research article. This section is dominated using simple present tense and present future tense. Since the study has been completed, past tense would have been the most proper time signal. Some texts below are the evidence of the incorrect use of tenses.

*The participants will be 16 EFL students who participated in this study. The sample technique uses cluster by lottery the two classrooms of EFL students who studied in master of English degree at the first semester in a local University. A descriptive quantitative research design will be used in this study. The questionnaire will be used as the instrument for collecting data. There are two parts of the questionnaires. First, 10 questionnaires will be conducted to the students toward the perception on the use electronic dictionary. Second, it also requires for the students' perception on the use paper dictionary. These 20 items of the questionnaire will be implemented by using a Likert scale format (strongly disagree to strongly agree).* (ET 9)

*The methodology of this research is descriptive qualitative. The tool for the data collection is questionnaire. The data is collected by the*

*spread questionnaire to 38 students in some schools nearby Entikong. The participants for the questionnaire are some students from several schools. The schools are from Junior High School, Senior High School and College Students. The participants are from multicultural background and learn English as second language. The data will be analyzed with SPSS. (ET10)*

The lack of details is another problem identified in the methods section written by the participants. For example, failed to explain the type of questionnaire they use for collecting the data including whether it is adopted from another study or is constructed by them. A few of them do not manage to provide detailed information about their study sample including how they are recruited. The analysis strategy also lacks details. For instance, in their study, they use both qualitative and quantitative data collection tools, but in their analysis approach, only the quantitative analysis strategy is provided and vice versa. Also, some use SPSS for the data analysis but do not state what statistical calculations would be incorporated in the research.

The misplacement of information is also identified to be a serious problem for a few participants. For instance, in the data analysis section, they should eventually write the approaches to interpret the data. Their writing proves that they report some of the study results in this section. One of the text samples is available below:

*The important point why Midwifery students need to learn and should master in English language is that they need to prepare themselves for the future educational career. The issue of having problems in learning English language is that they do not have a habit of using the language and they also do not have a good communication with their friends or conversation partners in English language. The third participant says that English language is not in her interest and flair. It is not needed in her future profession and work. She prefers and enjoys reading materials in Indonesian texts. (ET11)*

The correct use of English grammar is found to be the participants' obstacle too. Many sentences are written with incorrect grammar. A few examples of incorrect sentences are as follows; (1) The data is collected by the spread questionnaire... (2) The researcher was used SPSS version 16 ... (3) The depth discussion between the researcher and collaborator is...

In sentence 1, the article 'the' should be omitted and the verb 'spread' must be in the form of the gerund. Thus, the correct sentence is 'the data is collected by spreading the questionnaire...'. The second sentence should be in the active form not passive, and the correct one is 'the researcher used SPSS...'. Then, the correct sentence for number 3 is 'the in-depth discussion between the researcher and collaborator is ...'.

The participants who use structured-questionnaires in their study prefer to report the findings using the data from individual items. For instance, if the questionnaire contains 30 items, then findings are reported according to item number (i.e., 1 to 30). Despite this fact, most of them could display their statistical data with graphs and tables. Those who use qualitative data collection tools such as interview and observation chose to display their data using

the list of interview questions. If the list has 20 questions, they use each of the questions as their guide for reporting the findings. There are also others who use interviews, but the presented data is very short leaving an impression that the interviews last very quickly.

Interview with the participants of this study also reveals that the lack of research taking skill and article writing experience seem to have caused their lack of understanding about how the findings could be effectively reported. One of them, for example, commented:

*Frankly speaking, I rarely do the research. I only did it when I was writing my undergraduate thesis. This is my second opportunity to do research and my first one for writing an article. (ET6)*

Like in the previous sections, many ungrammatical sentences (see the samples below) are also identified in this part; (1) Although that have 16.7% disagree to often talk in English. (2) The result of Senior High School students was variously. (3) They prefer confidence talk in first language than to practice their second language skills.

In sentence 1, the message that the participant wants to convey is not clear, since it only contains a sub-clause with no main clause. In the second sentence, the correct sentence could be 'the result of senior high school students' English exam varied'. Then, in the last sample, the correct one is 'they prefer talking in the first language to practicing their second language skills'.

Some of the participants choose to discuss the findings of their study by the time they are reporting them while others decided to have a different section for discussion. Both conventions are acceptable in the scientific article writing. In other words, either way is correct. Writing the discussion for some participants is like writing findings or results. Since they often repeat some of the data which they have written in the results section. For example, one participant writes "the student 13 says 'I feel focused to what I have learned' in the discussion section of his article". Many of them also fail to relate the findings of their study with those of similar research so they could not say whether their findings are confirmed or rejected.

Regarding the conclusion, some participants manage to write a good conclusion for their research article. They could conclude their study by reintroducing readers with their study objectives and how they manage to achieve these objectives. They could also highlight some suggestions following the results of their study. However, from all the participants, only one who could highlight the limitations of his study and provide suggestions for other researchers to conduct similar studies in the future. Then, many incorrect uses of grammar are also identified in this section of participants' articles.

Most of the participants have a good knowledge of writing an abstract, particularly in terms of its structure (i.e., purpose, method, and results). The only major problem they have with abstract writing is concerning the use of correct English and grammar. Below is the sample of abstract written by one of the study participants (the underlined words are the samples of incorrect grammar).

*This study investigates the effectiveness of Jigsaw Reading in improving the students' reading comprehension. This study has done in one of public junior high schools in a rural area with the limitation of reading resources. The data*

*have collected* through test and non-test. The data from the test was collected twice, after the first cycle and after the second cycle. Then, the researcher compared the result of the students' achievement. For non-test data, the interview was used to draw the students' opinion towards the learning process through the jigsaw reading. Based on the result of the students score and students' opinion towards the learning process, the researcher concluded that the jigsaw reading *can* make the learning process more interesting and *gain* higher students' participation in learning. It also improves the students' reading comprehension. The students' mean score of the first cycle is 54,53 *categorized* as less sufficient, and the mean score of the second cycle is 67,19 *categorized* as sufficient. Since 67,19 is bigger than 54,53, it means that there is improvement of students' achievement from the first to the second cycle. (ET13)

The purposes of the current study are to examine the English teachers' ability to write good scientific articles and to identify their readiness to publish in scholarly journals. The results of the study prove that most of the teachers have problems with nearly all the sections of the article. A big part of the problem is due to their unfamiliarity with the scientific article writing, and a small part of it is because of their English writing competence.

For the introduction writing, the English teachers of this study or English teachers nationwide, in general, need to be trained and well-informed about how a good introduction of a scientific article should be written. More particularly, there should be a justification about how their study will contribute to the existing knowledge and literature or fill in the research gap. Below is an example of a good identification of research gap in an introduction section.

*Most of these previous studies, however, are focused on the influence of specific factors, such as the relationship between the teachers' integration of technology and their beliefs, attitudes, and professional development. The findings of these narrowly focused studies tend to offer insights into specific problems rather than take a holistic approach that encompasses the complex challenges faced by an institution to successfully integrate technology to enhance learning and teaching. This study, therefore, contributes to addressing the gap in the research by investigating multiple major factors influencing the technology integration in Indonesian polytechnic (Marwan & Sweeney, 2010).*

For the methods section, there should be an explanation about the strengths and weaknesses of the selected method as well as an information about sample selection and ethical matters (Elsevier, 2005). This research suggests that the participants failed to provide such information. The following is an example of a methods section which participants can use as a model.

*The research was conducted at the Khatulistiwa Polytechnic. The institution was selected because ... The research participants were 10 teachers from the institution (three males and seven*

*females). The teachers were selected because it was a manageable group for conducting an in-depth investigation. To recruit these teachers, the writer used snowball sampling technique. The snowball technique involves expanding the sample by asking one participant to recommend the others. Patton (1990), however, reminds us that despite its strength (i.e., for collecting rich information), this technique is prone to be bias. To minimize this problem, the participant was requested to strictly refer to the criteria set by the researchers. The study employed a semi-structured interview as the instrument for the data collection. This approach was selected because ... The data (interview transcripts) were analyzed by creating codes according to the key themes based on the literature and emerging themes (Marwan & Sweeney, 2010).*

Then, as the data of this study suggested, the results section is also not well written. Thus, the English teachers need to be taught about how the results of a study should be reported. Hengl and Gould (2002) have made this clear that it is unnecessary to report all the results but just inform the most important ones. However, saying it is not as easy as doing it especially for beginner authors. As such, relevant training should be available for the English teachers. The writing of discussion, conclusion, and abstract is also still a problem for the English teachers of this study. Therefore, it is not questionable that they are in a great need of professional development on scientific article writing. Finally, the issue of good English writing also seems to be very crucial because, without good English, it is almost unlikely that the teachers can get their papers accepted for publication in good scholarly journals. As such, they also need to be supported to enhance their English writing ability.

These latter findings also suggest the need to ensure the quality of English education programs. These programs must be well-controlled in that they should produce English teachers who particularly have good English skills. In short, they should emphasize the improvement of English skills (Saukah, 2003).

## CONCLUSIONS

To conclude, the current research managed to identify the English teachers' ability to write scientific articles. Overall, it argues that these teachers can be an excellent author. If necessary professional developments are continuously provided for them. Like many other studies, this study also has a limitation. It involves only a small number of English teachers. Thus, the results might not be generalized. The future large-scale study is, therefore, a necessity.

## REFERENCES

- Andrade, C. (2011). How to write a good abstract for a scientific 000000 paper or conference presentation. *Indian Journal of Psychiatry*, 53(2), 172-175.
- Belt, P., Mottonen, M., & Harkonen, J. (2011). *Tips for writing scientific journal articles*. Oulu: University of Oulu.
- Corbett, J. (2007). Writing the Introduction and Conclusion of a Scholarly Article. In D. P. J. Soule, L. Whiteley

- & S. McIntosh (Eds.), *Writing for scholarly journals: Publishing in the arts, humanities and social sciences*. Glasgow: University of Glasgow/eSharp.
- Elsevier. (2005). *Understanding the publishing process: How to publish in scholarly journals*. Amsterdam: Elsevier.
- Hengl, T., & Gould, M. (2002). *Rules of thumb for writing research articles*. Retrieved on February 10th, 2016 from [https://www.itc.nl/library/papers/hengl\\_rules.pdf](https://www.itc.nl/library/papers/hengl_rules.pdf).
- Kallestinova, E. D. (2011). How to Write Your First Research Paper. *Yale Journal of Biology and Medicine*, 84(3), 181-190.
- Kallet, R. H. (2004). How to write the methods section of a research paper. *Respiratory Care* 2004, 49(10), 1229–1232.
- Kotze, T. (2007). *Guidelines on Writing a First Quantitative Academic Article*. Pretoria: University of Pretoria.
- Marwan, A., & Sweeney, T. (2010). Teachers' perceptions of educational technology integration in an Indonesian polytechnic. *Asia Pacific Journal of Education*, 30(4), 463-476.
- Perneger, T. V., & Hudelson, P. M. (2004). Writing a research article: Advice to beginners. *International Journal for Quality in Health Care*, 16(3), 191-192.
- Saukah, A. (2003). *Pengajaran bahasa Inggris di Indonesia: Tinjauan terhadap unjuk kerja pembelajar serta upaya peningkatannya*. Malang: Universitas Negeri Malang.
- Soule, D. (2007). Introducing Writing for Scholarly Journals. In D. Soule, I. Whiteley & S. McIntosh (Eds.), *Writing for scholarly journals: Publishing in the arts, humanities and social sciences*. Glasgow: University of Glasgow/eSharp.