

# STUDENTS PERCEPTION OF SCIENTIFIC WRITING CLASS ON THEIR LEARNING GAINS

Siti Masniah<sup>1</sup>, M. Zaini Miftah<sup>2</sup>, Aris Sugianto<sup>3</sup>

<sup>1,2,3</sup> State Islamic Institute of Palangka Raya

<sup>1</sup> sitimasniah781@gmail.com, <sup>2</sup> m.zaini.miftah@iain-palangkaraya.ac.id, <sup>3</sup> aris.sugianto@iain-palangkaraya.ac.id

## Abstract

The research was carried out in order to know the students perception of scientific writing class on their learning gains. The sample were taken based on random technique. This research used quantitative approach. The research design of this study was survey research. These reserach subjects were 105 participants in semester 6th and 8th students English Education study program. The data were analyzed using Ms. Excel and SPSS 24 Program. The data in this research collected by using questionnaire as main instrument. The result of the study got 90% integrate sources, 89% research 86% structure, 91% feedback, 85% technique, 87% review, 81% research plan. This research showed that students gave positive responses with very good category of the scientific writing course on their learning gains to improve students writing skills. Most of the students in the scientific writing class have studied all the materials, strategies, and students are able to understand the writing tasks that have been given by the lecturer in improving scientific writing skills such as writing essays, abstracts, and thesis proposals. The respondents agree that the scientific writing is a learning material that affects the progress student of learning gains in writing scientific papers.

**Keywords:** Students Perception, Scientific Writing, Learning Gains

## INTRODUCTION

Scientific writing enables students to analyze and describe their thinking, synthesize their thoughts, and interact with others. Scientific writing is often praised as a unique mode of argument in which the text serves only as a conduit for scientists to convey independently existing realities to the public, relaying clearly observable evidence. Academic writing, which may take a variety of forms such as essays, programs, lecture notes, and theses, is an important part of academic discourse. As writing is the primary means by which students demonstrate and are assessed on their understanding of their field, as well as the primary means of evaluating (and, by extension, marking) students development, learning how to use and deal with written language productively “in disciplinarily approved ways” is critical to students' success during their time at university (Van de Poel & Gasiorek, 2012, p. 295).

Habibi, Wachyuni, & Husni (2017, p. 97) said that there are many problems in English writing that is capitalization problems, punctuation problem, poor organization/illogical sequence, grammatical error, spelling error, and confused on suppprting ideas. Writing is an academic writing needs a lot of study and practice in order to expand learners writing skill. The method used by students in science writing class has an effect on their ability to acquire scientific writing skills.

According to Archila (2013) in the research journal of Archila, Molina, & de Mejía (2018, p. 4) Students' science writing improves as they strengthen their scientific argumentation, some claim. To put it another way, a student's advancement in scientific argumentation is a crucial

predictor of their progress in scientific writing. Students must recognize that there are additional elements that must be addressed when writing research papers (for example, the use of reporting verbs, citations, references, and the use of grammatical metaphors, etc.). According to Akhadiyah (2015, p. 15) writing for scholars is a mandatory task to support academic career. The ability of students in writing scientific papers is a major factor in students completing these quickly and correctly. Mastery of the material in this scientific subject affects the mastery of students in compiling their research proposals, as one of the conditions for reaching their education level.

Scientific paper is a paper that systematically presents definition, explanation, or problem solving, critically and honestly presented using standard language, and supported by fact, theory, and empirical evidence. One important aspect of writing scientific papers is mastering the methodology in the writing process. Writing scientific paper is an activity that students need. Students may complete their studies on time with skilled writing of scientific paper. Therefore, the ability to write scientific papers is necessary and beneficial to promote the smoothness and success of their studies in college.

## METHOD

This research used a quantitative approach. The population for this study is students at English Education study program in 6th semester and 8th semester. The samples were 105 students by purposive sampling technique with close-ended question. Design of this study is survey research. The study was started from 27 Februari 2021- 27 Maret 2020 at the State Islamic Institute of Palangkaraya. And the research sample of semester 6-8 students via google form. The data obtained from this study, namely questionnaire data.

The researcher will collect the instruments which the questionnaire spread to the students. The researcher collected the main data (item score/responses) of the 6<sup>th</sup> to 8<sup>th</sup> semester of students English education. Next, the researcher arranged the collect score The researcher then looked at the mean, median, and mode of the students' scores, as well as the standard deviation score, in the distribution of frequency of score table. After the data is collected, the next step is the researcher interpreted the analysis result. Also the researcher the data was categorized and evaluated based on the categories. So that the researcher described the conclusion based on the data analyze.

## RESULTS AND DISCUSSION

### Results

#### 1. Learning Materials

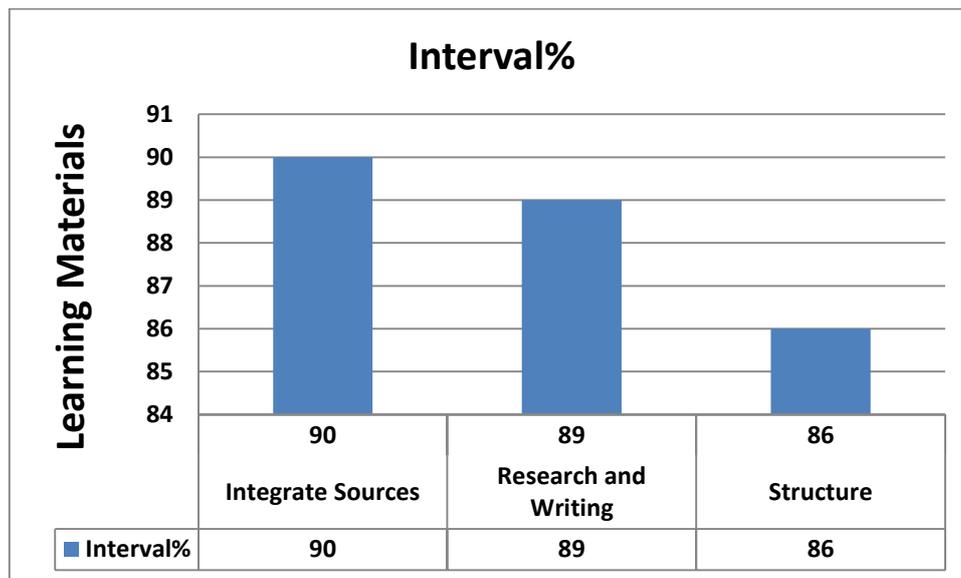
The first category is learning materials in scientific writing class which consists of three themes, namely integrate sources, reserach and writing, and structure. The result of the interval can be seen in the following table 4.32:

**Table 4.32**  
**Student's Perception in Learning Materials**

Theme	Interval%
Integrate Sources	90

Research and Writing	89
Structure	86

Table above shows percentages that 105 respondents of learning materials in scientific writing class in statement 1-11 in the questionnaire. Based on the data, the highest percentage was obtained 90% by integrate sources. Research and writing were second got very good category. It was 89% percentage. Also, structure were third got very good category with the result of 86% percentage.



**Figures 4.1** Distribution of Learning Materials in Scientific Writing Class.

2. Learning Strategies

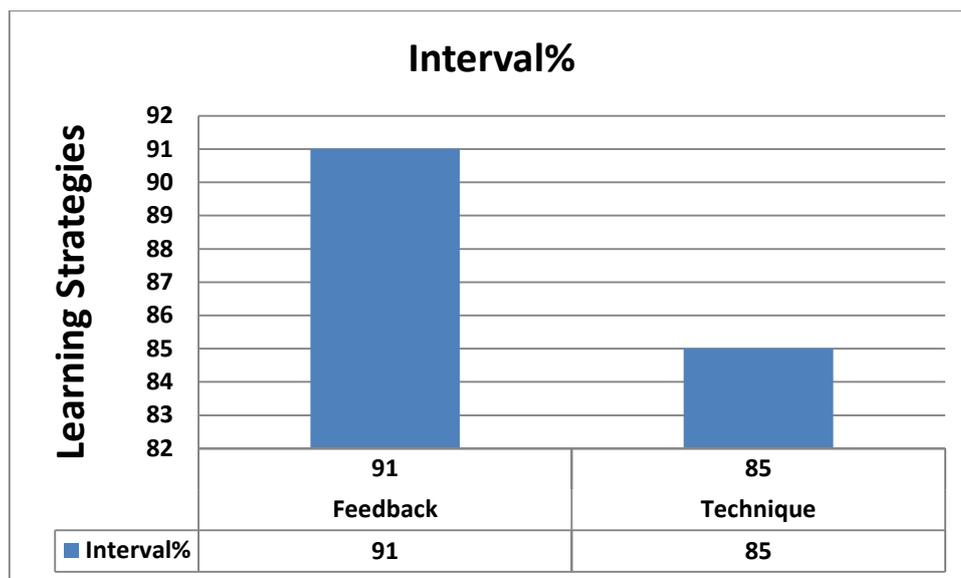
The second category is learning strategy in scientific writing class which consists of two themes, namely feedback and technique. The result of learning strategies shown in table 4.33.

**Tabel 4.33**

**Student’s Perception in Learning Strategies**

Theme	Interval%
Feedback	91
Technique	85

Table above shows percentages that 105 respondents of learning materials in scientific writing class in statement 12-14 in the questionnaire. Based on the data, the highest percentage was obtained 91% by feedback. Technique was second got very good category. It was 85% percentage.



**Figures 4.2 Distribution of Learning Strategy in Scientific Writing Class.**

3. Writing Task

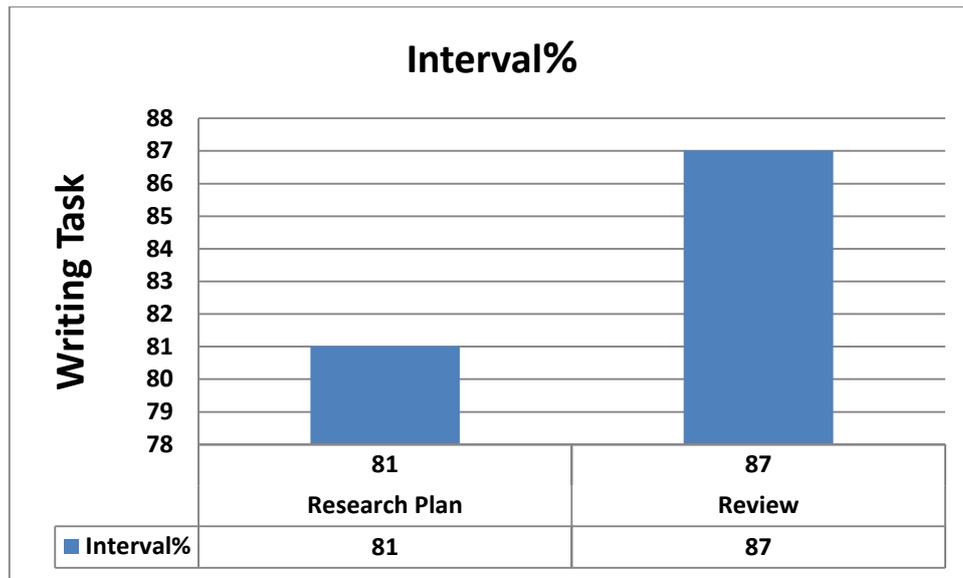
The third category is writing task in scientific writing class which consists of two themes research plan and review. The result of learning strategies shown in table 4.34.

**Tabel 4.34**

**Student’s Perception in Writing Task**

Theme	Interval%
Research Plan	81
Review	87

Table above shows percentages that 105 respondents of learning materials in scientific writing class in statement 15-20 in the questionnaire. Based on the data, the highest percentage was obtained 87% by review. Research plan was second got very good category. It was 81% percentage.



**Figures 4.3 Distribution of Writing Task in Scientific Writing Class**

**Discussion**

1. Learning materials in scientific writing

The first category is learning materials in scientific writing class which consists of three themes, namely integrate sources, reserach and writing, and structure. The respondents were 105 students from English Education Study Program in generation 2017 to 2018 at IAIN Palangka Raya, academic year 2021. Based on the findings data that can be see in (Table of 4.32), 105 respondents showed very positive of perception of learning materials in scientific writing class which are interpretation category very positive for theme integrate sources is 90%, research and writing 89%, and structure 86% which many students agree and have very positive interpretation on learning materials in scientific writing.

This happens because many students have studied material in scientific writing well and students know how to use quoting, paraphrasing, and summarizing to incorporate sources into a document, the materials can be implemented in thesis proposal writing, and the materials can be motivated because they were suitable for their needs. Learning materials in scientific writing class seek to increase students' knowledge of academic writing characteristics as well as provide them with hands-on experience examining, reviewing, and generating academic writing. The materials in scientific writing class are very much related to what the students of English Education Study Program about the material they learned in the scientific writing class.

It was similar to the data findings of Ward, Wisniewski, Avery, & Feist (2020) the study that showed the students in the study appeared to expect a centralized service that mirrored their actual experience of conducting research and writing activities as specific and organized practices within the context of individual assignments. Scientific writing learning materials help students understand the relationship between writing and research in scientific writing. Kim & Kim (2021) Students were able to clearly articulate their knowledge in writing as their writing improved, and as their writing became more definite and precise, their understanding grew.

## 2. Learning strategy in scientific writing

The second category is teaching strategy in scientific writing class which consists of two themes, namely feedback and technique. Based on the findings data that can be seen in (Table of 4.33), 105 respondents showed very positive perception of learning strategy in scientific writing class which are interpretation category very positive for theme feedback is 91% and technique 85%, which many students agree and very positive interpretation on strategy in scientific writing class such as, the lecturer give feedback on the assignment that has been done and the lecturer give useful techniques that can be applied by students in writing scientific papers. The strategy in scientific writing class are very much related to what the students of English Education Study Program about teaching strategy in scientific writing class. The strategy in scientific writing class are very much related to what the students of English Education Study Program about the material they learned in the scientific writing class.

It was similar to the data findings of Geithner & Pollastro (2015) peer-feedback literature, as well as other writing tasks, is an important learning strategy. So, students feel helped by the feedback from assignments, making it easier for them to understand the material in scientific writing class. The data findings of Zhu, Liu, & Lee (2020) the result showed that for more complicated things, all students could benefit from immediate feedback, and the majority of students made revisions based on the feedback. The automated feedback was also well received by students. The findings by Schillings, Roebertsen, Savelberg, & Dolmans (2018) the result showed that As feedback, peer review and written feedback from lecturers were widely used. The majority of studies focused on interventions that required students to rewrite text; this was thought to be a type of feed-forward information. The interventions were usually regarded as constructive by the students. As demonstrated by marks, the majority of the measures concerned with other outcome measurements resulted in better outcomes. The advantages Feedback can detect and correct conceptual or procedural errors before students have completely internalized misconceptions or procedural errors. So, feedback provided can provide information, explanation of knowledge or suggestions to improve the quality of students' writing skills.

## 3. Writing task in scientific writing class

The third category is writings task in scientific writing class which consists of two themes, namely research plan and review, (Table 4.34) with the result interval for very positive interpretation of perception of writing task in scientific writing class for theme of research plan is 81% and review is 87%, which many students agree and have very positive interpretation on writing task in scientific writing class such as, students learn more about writing task in scientific writing class and know how to develop a research plan when do writing task.

It was similar to data findings of Van de Poel & Gasiorek (2012) evaluative feedback more effectively to written assignments Students are able to objectively analyze and, in most cases, formulate ideas for self-improvement after receiving assignments and reports. Jorissen's (2011) research on the impact of in-class writing assignments on self-efficacy experience adds to our understanding of the impact of hands-on assignments on students' acculturation. At the same time, students said The writing tasks were both enjoyable and beneficial. Throughout the first term, there was a high level of perceived

interest in the assignments. Students feel they did well on the assignments and felt well-prepared for writing exams and papers, thanks to the theoretical foundations of the writing course. (as well as the textbook that goes with it). After only one word, the high face validity of the writing tasks seems to have made students feel acculturated. As previously stated by Zhang, Schunn, & Baikadi (2017), this result supports the involvement of peers/teachers in the self-disciplined learning process. Peer comments alone tended to make the greatest contribution to the revision of writing items.. Students indicate they have confidence in in the competence of the peer reviewers.

## CONCLUSION

The research was investigated students perception of scientific writing class. It was conducted to the students in semester 6<sup>th</sup> and 8<sup>th</sup> at English Education Study Program of IAIN Palangka Raya. It can be concluded, as described in the previous data findings and discussion, that students perceptions of scientific writing class on their learning gains have the interval data analysis, for category students perception on learning materials in scientific writing class with theme of integrate sources have percentage interval of 90%, research and writing have percentage interval 89%, and structure have percentage interval 86% was obtained with “Very Positive” interpretation. For category students perception on learning strategy in scientific writing class with theme of feedback have percentage interval 91% and technique have percentage interval 85% was obtained with “Very Positive” interpretation. For category students perception on writing task in scientific writing class with theme research plan have percentage interval 81% and review have percentage interval 87% was obtained with “Very Positive” interpretation. Thus, it can be concluded that based on the result above, most of the students in the scientific writing class have studied all the materials, strategies, and students are able to understand the writing tasks that have been given by the lecturer in improving scientific writing skills such as writing essays, abstracts, and thesis proposals. This also means that the scientific writing is a learning material that affects the progress student of learning gains in writing scientific papers.

## ACKNOWLEDGMENTS

The researcher would like to express her sincere gratitude to Allah SWT. for the blessing bestowed in whole life particularly during the jurnal writing without which this jurnal would not have come to its final form. *Sholawat* and *salam* always be bestowed to the last prophet Muhammad SAW. This article entitled “Students Perception of Scientific Writing Class on Their Learning Gains” is submitted in partial fulfillment of the requirements for the degree of *Sarjana* in English Language Education IAIN Palangka Raya.

## REFERENCES

- Akhadiyah, S. (2015). *Bahasa sebagai sarana komunikasi ilmiah*. Bekasi: Paedea.
- Archila, P. A., Molina, J., & de Mejía, A.-M. T. (2018). Fostering bilingual scientific writing through a systematic and purposeful code-switching pedagogical strategy. *International Journal of Bilingual Education and Bilingualism*, 1–9. <https://doi.org/10.1080/13670050.2018.1516189>
- Geithner, C. A., & Pollastro, A. N. (2015). Constructing engaged learning in Scientific Writing. *Journal of Applied Research in Higher Education*, 7(2).
- Habibi, A., Wachyunni, S., & Husni, N. (2017). Students’ perception on writing problems: A survey at one Islamic university in Jambi. *Ta’dib: Journal of Islamic Education (Jurnal*

- Pendidikan Islam*), 22(1), 96–108. <https://doi.org/10.19109/td.v22i1.1623>
- Jorissen, J. (2011). *The effect of writing assignments on an academic writing Programme*. Unpublished Master's thesis. University of Antwerp.
- Kim, S. L., & Kim, D. (2021). English learners' science-literacy practice through explicit writing instruction in invention-based learning. *International Journal of Educational Research Open*, 2, 100029.
- Schillings, M., Roebertsen, H., Savelberg, H., & Dolmans, D. (2018). A review of educational dialogue strategies to improve academic writing skills. *Active Learning in Higher Education*, 1469787418810663.
- Van de Poel, K., & Gasiorek, J. (2012). Effects of an efficacy-focused approach to academic writing on students' perceptions of themselves as writers. *Journal of English for Academic Purposes*, 11(4), 294–303. <https://doi.org/10.1016/j.jeap.2012.07.003>
- Ward, D., Wisniewski, C., Avery, S., & Feist, K. (2020). Unifying academic research and writing services: Student perspectives on a combined service model. *The Journal of Academic Librarianship*, 46(4), 102159. <https://doi.org/10.1016/j.acalib.2020.102159>
- Zhang, F., Schunn, C. D., & Baikadi, A. (2017). Charting the routes to revision: An interplay of writing goals, peer comments, and self-reflections from peer reviews. *Instructional Science*, 45(5), 679–707.
- Zhu, M., Liu, O. L., & Lee, H.-S. (2020). The effect of automated feedback on revision behavior and learning gains in formative assessment of scientific argument writing. *Computers & Education*, 143, 103668.