

Analysis of Scientific Writing Ability of Elementary Level Students in Higher Education

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Abstract. Elementary semester students taking Indonesian General Course (MKU) lectures need to be analyzed for their ability to write scientific papers. Students do not really need support and skilled training in writing scientific papers, so there is a need for strengthening in their ability to write scientific papers. The research was conducted using a qualitative descriptive method. Sources of data in the study were students of the S1 Accounting Study Program, Al-Azhar University, Indonesia in the first semester. The data is the result of student work, namely article writing. Data collection techniques in research in the form of tests. The data analysis technique used is the Miles and Huberman model. The steps are, data reduction, data presentation, and drawing conclusions. The data validity technique used is triangulation. The results of the first research, the ability to write systematic scientific articles. A total of 17 groups or 85% are categorized as good or can write scientific systematics in the form of articles. The rest, 3 groups or 15% are categorized as needing guidance. Second, the ability of students to write the contents of scientific works in the form of articles. The contents of the title, author's name, abstract, research method, and student bibliography are categorized as good because more than 75% can write. The rest, in preliminary writing, research results, discussions, conclusions and suggestions, students are categorized as needing guidance because only 25% can write well. Third, the ability to use Indonesian spelling. Several errors were found, which need to be considered, namely errors in capital letters, italics, periods, commas, and standard words. This error is due to the lack of students reading scientific papers, so that the knowledge of the use of Indonesian spelling is still relatively lacking.

Keywords: Scientific work, Indonesian General Course (MKU)

INTRODUCTION

The Indonesian General Course (MKU) is one of the four compulsory subjects in higher education. Law Number 12 of 2012 concerning Higher Education in article 35 paragraph 3 states that the higher education curriculum must include religious, Pancasila, citizenship and Indonesian language courses for undergraduate and diploma programs. One of the undergraduate programs that carry out general Indonesian language courses is the Bachelor of Accounting at Al-Azhar University Indonesia. These study programs are used as research subjects, especially for lower semester students, namely the second semester. The reason the researcher chose these students as research subjects was, because the lower semester students were the time when they were learning to write a scientific paper, so with this research it was hoped that they could express all their dreams in writing. Thus, the existence of the Indonesian General Course (MKU) is believed to be able to help students' scientific writing skills, especially non-Indonesian students. Therefore, the researcher intends to guide them through learning that teaches writing scientifically to students at the elementary level, because in order to have the skills to write scientific papers, it is necessary to have the ability to write well, especially for non-Indonesian students. Especially students of S1 Accounting study program. However, if non-Indonesian students have not mastered the ability to write scientific papers well, the foundation for learning to write scientific papers in higher education is not strong.

As a result, students at the next level will experience difficulties or many obstacles. In addition, S1 Accounting students are obliged to compile scientific papers as a final project in obtaining a bachelor's degree. Reason is in accordance with the purpose and existence of the Indonesian General Course (MKU) lectures. The purpose of this research is to make students skilled in using Indonesian, especially in writing scientific papers. One of the scientific activities is writing scientific papers. In this research, it is limited to writing scientific articles. A scientific article is a written work designed to be published in a journal or book collection of articles, written in a scientific manner in accordance with applicable scientific conventions. Based on this opinion, scientific articles are different from other scientific writings. The difference is in the casting of the work, namely scientific articles published in journals. Another difference, contained in the systematics of writing. The systematics of writing scientific articles according to Suyitno (2011: 93) include: 1) article title, 2) author's name, 3) abstract and keywords, 4) introduction, 5) research methods, 6) research results, 7) discussion, 8) conclusions and suggestions, 9) bibliography. Such systematics, such as the systematics of writing a thesis or final project, but in scientific articles are limited by the number of pages, so that in systematics scientific articles follow the rules, patterns, and writing techniques determined by the journal printing institution or institution. This means that the nine systematics are not standard systematics, but can be adapted to the journal-making institutions. Apart from the two differences between scientific articles and other scientific works. Scientific articles have similarities with other scientific works in terms of the use of language. The language used in scientific articles, namely concrete language, formal language style, technical words, and supported by general facts that can be proven true (Brotowidjoyo, 2002: 9; Suyitno, 2011: 91; Ismawati, 2012:68).

Based on this description, the research aims to analyze 1) the ability of students to write systematic scientific articles, 2) the ability of students to write the contents of scientific articles according to the systematics, and 3) the ability to use Indonesian spelling in writing scientific articles.

RESEARCH METHOD

This study used a qualitative method with the descriptive research. That is, research that describes data in the form of word order. The data source is the second semester students of the Accounting Study Program, Al-Azhar University, Indonesia. The data is the result of student work, namely writing scientific articles. Technique Data collection in research is a test. Test according to Arikunto (2010: 193) is a series of questions or exercises and tools used to measure skills, knowledge, intelligence, abilities, or talents possessed by individuals or groups. The test used is the manufacture of scientific articles by students in groups. Students with a total of 60 are formed into 20 group. Each group consists of 3 students. Article creation Scientific research is carried out at the end of the lecture after the students have received the provision of writers scientific papers and Indonesian spelling. Students are given freedom in write scientific articles.

The data analysis technique used is the Miles and Huberman model. The steps are, data reduction, data presentation, and drawing conclusions. Data reduction, the researcher sorts the data according to the research objectives, namely: systematic arrangement, content in systematics, and use of spelling. Things outside research objectives will be ignored. After sorting according to research objectives, it is carried out data adjustment using percentages and in-depth analysis of the data. The percentage is done to make it easier to read the data and can be used as a ref measure data analysis. In-depth analysis contains a wording that clarifies the results percentage.

The data validity technique used is triangulation. Triangulation according to Moleong (2005: 330) namely the technique of checking the validity of the data use something other than the data for checking purposes or as a comparison against the data. The triangulation carried out are: to students as data sources through interviews and peer lecturers as expert in the field of Indonesian language. That is to students as data sources through interviews and peer lecturers as expert in the field of Indonesian language.

RESULT AND ANALYSIS

The second semester students of the Accounting Study Program, Al-Azhar University, Indonesia totaling 60 students were formed into 20 groups. Each group consists of three students. Each group was given a test to make scientific articles based on lectures. A total of 17 groups or 85% can compile a systematic scientific article. The rest, as many as 3 groups or 15% still need guidance in the systematic preparation of scientific articles.

Table 1. Ability to Write Systematics of Scientific Articles

Number of Groups	Percentage	Information
17	85%	Good
3	15%	Needs guidance
20	100%	-

After the systematic analysis, the researcher analyzed the content written in each section of the scientific article. The ability to write the contents of scientific articles is described as follows. 1) The ability to write the title and the author's name as many as 20 groups or 100% can write the title well. 2) Ability to write abstracts and keywords as many as 18 groups or 90% can write well, the remaining 2 groups or 10% still need guidance. 3) The ability to write introductions as many as 12 groups or 60% can write well, the remaining 8 groups or 40% still need guidance. 4) The ability to write research methods as many as 17 groups or 85% can write well, the remaining 3 groups or 15% still need guidance. 5) The ability to write research results as many as 9 groups or 45% can write well, the remaining 11 groups or 55% still need guidance. 6) The ability to write discussion as much as 3 groups or 15% can write well, the remaining 17 groups or 85% still need guidance. 7) The ability to write conclusions and suggestions as many as 10 groups or 50% can write well, the remaining 10 groups or 50% still need guidance. 8) Ability to write bibliography as many as 19 groups or 95% can write well, the remaining 1 group or 5% still need guidance.

Table 2. Ability to Write The Content of Scientific Articles Based on Their Systematics Systematics

Systematics	Number of groups	Percentage	Information
Title and author's name	20	100%	Good
Abstract and keywords	15	75%	Good
	5	25%	Need Guidance
Introduction	12	60%	Good
	8	40%	Need Guidance
Research methods	17	85%	Good
	3	15%	Need Guidance
Research results	9	45%	Good
	11	55%	Need Guidance

Discussion	3	15%	Good
	17	85%	Need Guidance
Conclusions and suggestions	10	50%	Good
	10	50%	Need Guidance
Bibliography	19	95%	Good
	1	5%	Need Guidance

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Table 3. Spelling Indonesian Usage Capabilities

Indonesian spelling	Number of Errors
Capital Letters	50
Italics	20
Period Signs	45
Comma Sign	30
Baku said	30

3.1 Ability to Organize Scientific Articles

The ability to systematically compile scientific articles for second semester students of S1 Accounting Study Program, Al-Azhar University, Indonesia is classified as good, i.e. 85% can compile systematic scientific articles. The remaining 15% still need guidance in compiling systematics. students who

can systematically compile scientific articles. In work the student, has contained nine systematic scientific articles, namely the title article, author's name, abstract and keywords, introduction, research methods, results research, discussion, conclusions and suggestions, and bibliography. In this discussion, the researcher still ignores the contents of the systematics of the article. Researchers only analyzing the systematics of articles that can be seen by naked eye. Remainder groups of 3 or

15% still need guidance. The three groups do not include keywords, discussions and suggestions. Keywords are ignored because they don't is the essence of systematic scientific articles. In addition, students have not know that keywords are an important part of the article. About discussion that is not included in the work of the article, because students have made research results. In the research results have included all student findings in research without the need for discussion. Finally, the student advice section does not include it because located at the end of the work before the bibliography. Less students careful, certainly not include suggestions.

Students who need guidance in the preparation of scientific articles are: students who are not present in lectures on scientific writing material. These students, do not catch up with the lecture material as long as they do not enter. As a result, students compile scientific articles that are not in accordance with systematics of scientific articles. This incident needs to be given attention to the lecturer Indonesian language supervisor or seminar and thesis supervisor.

3.2 Ability to Write Contents of Scientific Articles

The second research objective is to analyze the ability to write content scientific articles for second semester students of S1 Accounting Study Program, Al-Azhar University, Indonesia. Article content analysis scientific based on the systematics of scientific articles. All students can write the title article well. The title is said to be good if the title created can provide a clear picture of the material scope of the problem to be discussed and attract the attention of readers (Sugihastuti and Siti Sauda, 2016: 311). For make it easier for students, all titles are directed to qualitative research. goal, In qualitative research, the content of the research prioritizes the description of words rather than words number count. The second systematic is abstract and keywords. Students who can make abstracts and keywords with good categories are 15 groups or 75%. The rest, 5 groups or 25% still need guidance. The contents of the abstract follow the rules of each institution. In abstract work, contains background background, objectives, types of research, data sources, research data, collection techniques, analysis techniques, data validity techniques, and research conclusions. For keywords refers to the variables contained in the research title. A total of 15 groups that are categorized as good have fulfilled the contents of the abstract and keywords in accordance with applicable rules. The group of 5, can't fill it well or need guidance. The reason is that 3 groups did not include keywords, while the other two groups wrote wrong keywords. In accordance with the theory of writing keywords refer to research variables.

The third systematic, namely the introduction. Pre-work 12 group or 60% categorized as good, the remaining 8 or 40% group categorized need guidance. The introductory part according to Sugihastuti and Siti Sauda (2016:312) contains the background of the problem, the purpose of the discussion, the scope/limitation of the problem, the theory used, data sources, methods and techniques used. used and systematic presentation. The contents of the introduction for the thesis, while for scientific articles it is simpler. In scientific articles, introduction contains the background of the research, the scope or limitations of the research and the objectives study. The patterned background of the details (specifically) is drawn to the general. This is in accordance with qualitative research. Qualitative research pattern contains a special problem or case study at a research location then elaborated to draw conclusions. The scope contains about research limitations, can be in the form of object or subject variable limitations. Research purposes contains the purpose of researchers in conducting research. A total of 12 groups are categorized as good because in the preliminary work they have included three things namely the background, scope, purpose and specific-general pattern. Different with 8 groups categorized as needing guidance. Location of guidance found in 1) the background content is less focused or still general in nature, 2) not specific-general pattern, but general, and 3) there is no scope or research limitations. Students are less focused because students do not explore and understand the phenomenon. Student working not specific-general pattern but general-general because students need to read a lot of scientific papers so that they can write well. Students do not include the scope of research, the reason is forgotten and it is said not to be a problem important in research. These three things need to be paid attention to by lecturers seminar supervisor as well as in the preparation of papers, reports and thesis.

The fourth systematic, namely research methods. In working method In the study, 17 groups or 85% were categorized as good. The rest, as much as 3 group or 15% categorized as needing guidance. The research method, contains the types research, data and data sources, types of data

collection and analysis, and types of data validity. A total of 17 groups can fulfill the content of the research method well. The rest, as many as 3 groups experienced problems in 1) still confusion in distinguishing data and data sources, 2) less variety in terms of determine the type of data analysis, and 3) do not include the type of data validity. These three obstacles, because students are less enthusiastic in finding research reference. As a result, knowledge of scientific writing, especially qualitative research is still minimal.

The fifth systematic, namely research results. In this section, it contains about presentation of the results of research analysis without any discussion. There are results The study is presented without any citations from other studies. A total of 9 groups or 45% are categorized as good, the remaining 11 groups are categorized as needing guidance. Categorized as good, because in the process there is an analysis of a phenomenon according to the type of analysis that has been described in the research method. Group who need guidance, because the analysis carried out is not in accordance with the research methods. In addition, in the introductory chapter students who do not include the scope of research, it will be confused in giving proper boundaries and analysis. As a result, research is unfocused and widespread.

The sixth systematic, namely the discussion. In this section, it is continuation of the systematic research results. If, in the research results section in the form of presentation of research results, then the discussion section is a form of description of the research result. The description can be a description that describes the data source in generating data. In this way, researchers can uncover the reasons something happening in greater depth and focus. That is the difference qualitative and quantitative research. Qualitative research is focused on the description of words, so that it can be known in depth the phenomena that occur. In contrast to quantitative research in the form of numbers to measure a treatment or event without being able to reveal the reason behind an event. A total of 3 groups or 15% are categorized as good because they can reveal in-depth research results. The rest, 17 groups or 85% are categorized as necessary guidance for the following reasons. 1) student does not include part the discussion of the reasons in the research the most important part is the results research without any discussion of the research results. Another opinion states that if there are research results, there is no need for discussion. 2) students do not do in-depth research, because the data research in the form of text without any observations or interviews about the text the. 3) students are not good at composing words, as a result the contents in the discussion is the same as the research results. These three reasons, can be overcome if students often read scientific papers and often wrote scientific papers.

The seventh systematic, namely conclusions and suggestions. All groups load and fill the section well. In conclusion, students conclude the research results in accordance with the research objectives. In the suggestions section, it contains about tips that readers need to do. If the reader as a researcher is given suggestions for doing good research. That is, obstacles or problems that happened by the student (researcher) is not repeated to the reader as a researcher next. If the reader is a connoisseur of scientific writing, suggestions are given accordingly research results in order to gain better knowledge.

The eighth systematic, namely the bibliography. Sugihastuti and Siti Sauda (2016: 315) states that the bibliography is a list of books, magazines, articles in magazines or newspapers, or articles in a collection of essays used as a reference in research. A total of 19 groups or 95% categorized as good. The reason, can write a bibliography according to the rules and All citations in scientific papers are included in the bibliography. The rest, 1 group or 5% categorized as needing guidance. The reason, still confused In writing a bibliography, such as writing the name of the author of the book, it is necessary to reverse, the author of more than two books is written by students and the title of the book is not italicized. In addition, not all citations are included in the bibliography.

3.3 Ability to Use Indonesian Spelling

The last ability that is the research objective is the students in using Indonesian spelling in writing scientific papers. Based on the results of the study, there are several errors in the use of language spelling Indonesia. The following is a discussion of the use of Indonesian spelling in writing student scientific work. First, the use of capital letters found as many as 50 letters written does not match the Indonesian spelling. The discrepancy is categorized in two errors. The first use of capital letters is writing the name of the eye lesson. Writing the name of the subject is included

in the name itself so that It is written using a capital letter for the first letter of a word. In fact, as many as 38 words containing the names of the subjects were written use lowercase letters.

The second wrong use of capital is writing month names and historical events. A total of 12 words containing the name of the month historical events are written in lowercase. Supposedly, writing the name of the month and historical events are capitalized on the first letter of a say. Errors in using capital letters in subject names, month names and historical events are caused because students think the name of the subject is not an important name. As a result, the words are written using the letters small. Students assume that capital letters are only for names people, religions and regions. Students should often look at the spelling manual Indonesian in the process of writing scientific papers.

Second, the use of italics was found as many as 20 words that were not written in italics. In Indonesian spelling, italics are used for book titles, affirmation of foreign words and terms. A total of 20 words that are not italicized are found in foreign term writing. Students pay less attention to the use of the letter italics for foreign terms that have not been found equivalent in the language Indonesia.

Third, the use of the full stop was found as many as 45 misspellings. Errors in the use of periods were made by students in the subtitles. Should writing subtitles are written without using a period at the end of the subtitle. In fact, students put a dot at the end of the subtitle. Students do not understand the use of periods in sentences, not in the title or subtitle.

Fourth, the use of commas found as many as 30 misspellings. Misuse of commas in conjunctions. Rules for using the sign The comma is after the conjunction at the beginning of the sentence and before the conjunction at middle of the sentence. Students who use conjunctions do not use commas. Students assume that writing a comma in a clause that precedes the main sentence, separates exclamations from sentences, separates names with titles, and words written in sequence and in sequence.

Fifth, the use of standard words found as many as 30 words. The standard word is words that have been determined in the general Indonesian spelling guidelines based on some criteria. A total of 30 words that are not included in the standard words of the language Indonesia. Students in writing scientific papers pay less attention to the word standard and non-standard, especially foreign words that have found equivalent words in Indonesian. The words written by students actually already exist equivalent words in Indonesian, but students are less careful. Vocabulary commonly used in scientific papers have been written by students according to word standard. Thus, students should often open the Dictionary Great Indonesian Language or General Indonesian Spelling Guidelines for add insight into a standardized word. This, according to with the character of the language that is dynamic. Language changes and foreign language absorption occurs to fill the lack of vocabulary of a language..

CONCLUSION

Based on the results of research, students' ability to write scientific papers Indonesian language courses are described in three forms. First, ability to write systematic scientific articles. A total of 17 groups or 85% categorized as good or can write systematic scientific articles. The rest, 3 groups or 15% categorized as needing guidance. Second, the student's ability to write scientific articles. Contents on writing title, author's name, abstract, method research, and student bibliography are categorized as good because more than 75% can write. The rest, in the preliminary writing, research results, discussion, conclusions and suggestions, students are categorized as needing guidance because only 25% can write well. Third, ability use of Indonesian spelling. Found some errors, which need Note that errors in capital letters, italics, periods, commas, and standard word. The error, because students do not read the work scientific knowledge, so that.

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