

STUDENTS' EVALUATION OF STATISTICS COURSE IN CHRISTIAN RELIGIOUS EDUCATION MAJOR OF IAKN TARUTUNG

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STUDENT OUTPUTS



STUDENTS' EVALUATION OF STATISTICS COURSE IN CHRISTIAN RELIGIOUS EDUCATION MAJOR OF IAKN TARUTUNG

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Abstract: The purpose of this study is to determine student evaluation of the statistics course in Christian Religious Education of IAKN Tarutung. This study utilized survey method, where a total 38 respondent selected students participated. Respondents are students who were writing their thesis in Christian Religious Education major. The indicators of subject evaluation studies by students used in this study. The indicators consist of: course syllabus, teaching schedule, text books, teaching level of teachers, teaching methods, experimental conditions, resources for the course, learning abilities, thinking mode, and teaching quality. Data processed by using SPSS v23. According to students evaluation, the performance of Statistics course teaching is good. However, student competency is not satisfactory because most student unable to use statistical methods.

Keywords: Statistics, Course Evaluation, Christian Religious Education

1. INTRODUCTION

State Christian Religious Institute of Tarutung (Institut Agama Kristen Negeri Tarutung – IAKN Tarutung) is a Christian college which is under the supervision of the Ministry Religion Affairs of the Republic of Indonesia. IAKN Tarutung is located in Tarutung, North Sumatra Province, Indonesia. IAKN Tarutung has several majors: Christian Religious Education, Theology, Pastoral Counseling, Church Music Education, Christian Sociology, Christian Education Management, Religious Tourism, Early Child Education, and Missiology. The most popular major is the Christian Religious Education.

Christian Religious Education major produces students to become teachers of Christian Education. Later they will teach Christian Education subject for Christian students in elementary, middle or high school in Indonesia.

Statistics is a required subject of study in Christian Religious Education major. The aims is to prepare students to be able to use statistical methods in conducting research. But in reality, many students are not able to do it. It is necessary to do an evaluation to find out information objectively about this course.

The purpose of this study is to determine student evaluation of the statistics course in Christian Religious Education of IAKN Tarutung.

2. COURSE EVALUATION

Course evaluation is considered as one of the effective tools for knowing teaching and learning because it can provide useful information for teachers and institutions about the quality of education that has an impact on student learning¹.

Course must be evaluated both in theory and practice with the aim to improve quality and to find out whether goals have been achieved². In this case what is meant by the goal is that students are able to use statistics when conducting research.

Student evaluations make it possible to provide solutions to problems experienced by students in this course³. Evaluation is conducted to determine teaching performance and to improve the quality of teaching. Students and lecturers agreed that evaluation can improve the quality of teaching⁴.

This evaluation can be done in several ways through online, manual surveys or interviews. The aim is to ensure that the quality of professional services by lecturers is fulfilled. Students deserve to evaluate the effectiveness of the teaching process so that lecturers can know the most suitable teaching techniques⁵.

The researcher compared students of Christian Religious Education with students of Tourism. According to researcher, students from these two majors have similarities because they come from the same science family, namely social sciences. Students need to have statistical literacy, not only understand statistical analysis tools, but to develop statistical reasoning, because it is relevant for student careers. However, most students do not have strong mathematical training, and they do not show a tendency for quantitative methods⁶.

Education background can influence student attitudes towards statistics⁷. According to Asal Aslemand (2018) that student mathematical achievements in the past will affect their abilities in statistics⁸.

Students' attitudes toward statistics are factor that contribute to student success in this course⁹. Students' attitudes toward statistics are an important role in achieving their statistics, influencing statistical learning, understanding statistical concepts and methods, and developing useful statistical thinking skills needed to apply statistics knowledge¹⁰.

There are students who have a negative attitude towards the Statistics course because they think this subject not relevant to their field of study and their future¹¹. In

order for students to succeed in statistics, students must eliminate negative attitudes towards statistics and also can through group learning¹². The attitude towards statistics is influenced by the learning environment, one of which is meant by the learning environment is the use of technology¹³. The use of statistical software can make students interested. If innovation is carried out in the statistics class, it will improve the ability of students¹⁴.

According to Abdullah Mohammed Alemir, the statistics teacher needs to choose the right method when teaching Statistics courses¹⁵. There is a significant difference between students' attitudes towards statistics between different modes of learning¹⁶. In addition, learning in statistics will be effective if using project-based learning¹⁷.

Research by Wen Tang, Jianning Bai, Jinbou Liu, Hui Wang and Qi Chen (2012) explained the indicators used in subject evaluation studies by students. The indicators consist of: course syllabus, teaching schedule, text books, teaching level of teachers, teaching methods, experimental conditions, resources for the course, learning abilities, thinking mode, and teaching quality¹⁸. This study uses these indicators to evaluate statistical subjects by students.

3. METHODS

This study utilized survey method, where a total 38 respondent selected students participated. Respondents are students who were writing their thesis in Christian Religious Education major. Data processed by using SPSS v23.

4. RESULTS

Based on the research, it was found that respondents consisted of 36.64% male and 63.16% female. Composition of respondents according to gender can be seen in Figure 1 below:

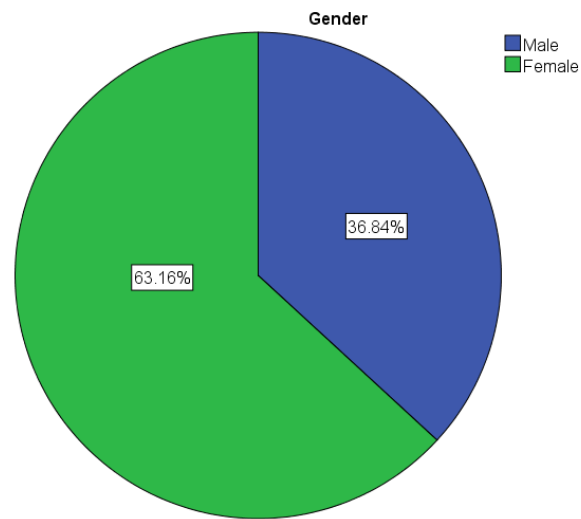


Figure 1. Composition of respondents according to gender

Meanwhile, according to education background, respondents consisted of 92.11% from natural sciences and 7.89% from social sciences. Composition of respondents according to education background can be seen in Figure 2 below:

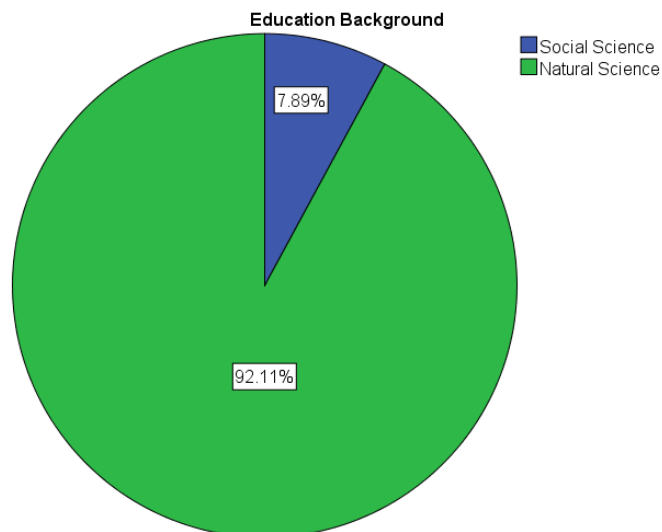


Figure 2. Composition of respondents according to education background

According to the conformability of teaching content with our course syllabus, one (2.6%) students said poor, 13 (24.2%) said good, and 24 (63.2%) said outstanding. It can shown in Figure 3 below:

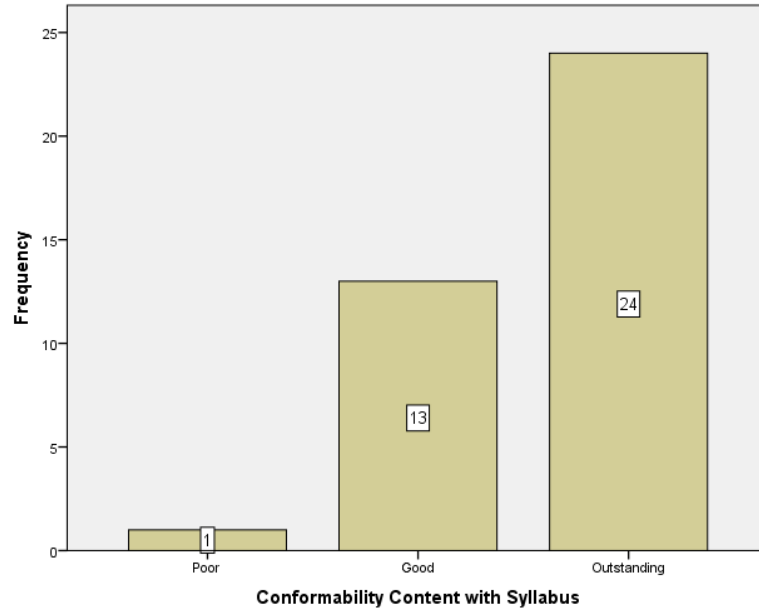


Figure 3. The conformability of teaching content with our course syllabus

According to teaching schedule, 27 (71.1%) students said adjusted, and 11 (28.9%) said highly adjusted. It can shown in Figure 4 below:

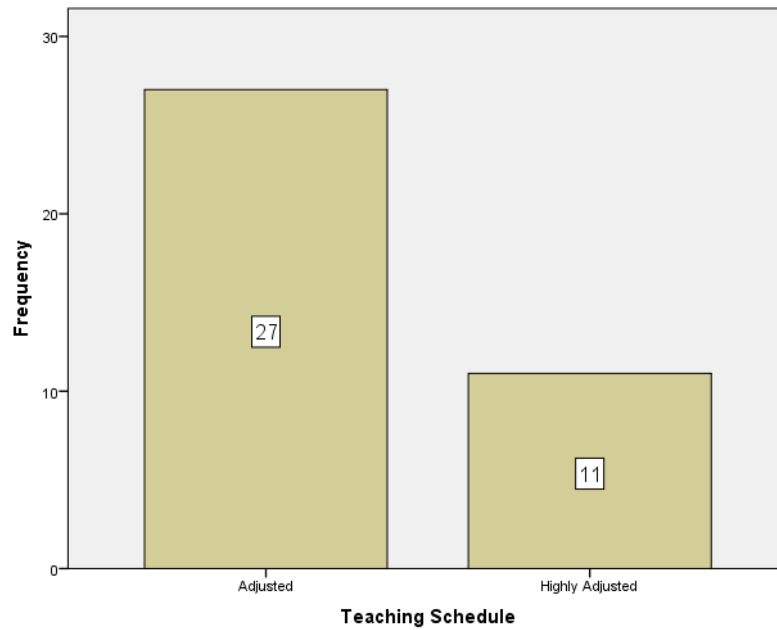


Figure 4. Teaching schedule

According to matching between textbook and teaching content, one (2.6%) students said poor, 23 (60.5%) said good, and 14 (36.8%) said excellent. It can shown in Figure 5 below:

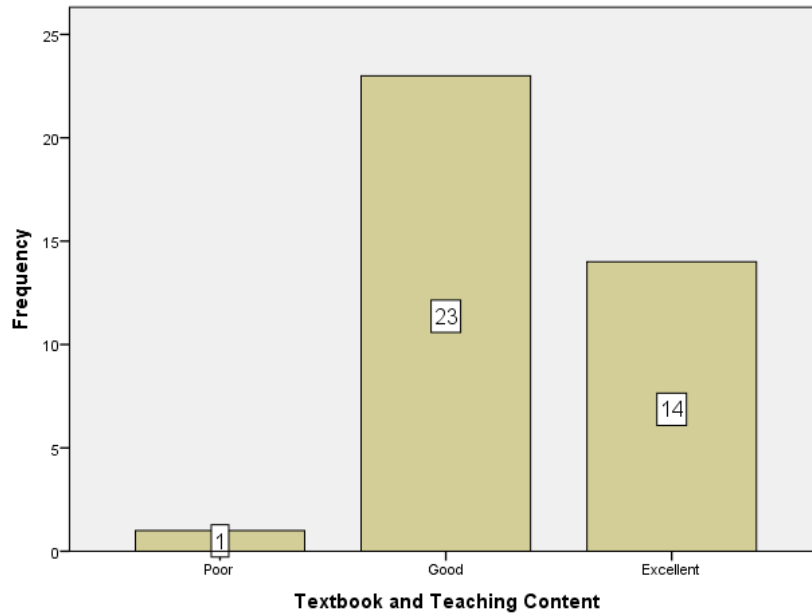


Figure 5. Matching between textbook and teaching content

According to quality teacher and teaching level, one (2.6%) students said poor, 15 (39.5%) said good, and 22 (57.9%) said excellent. It can shown in Figure 6 below:

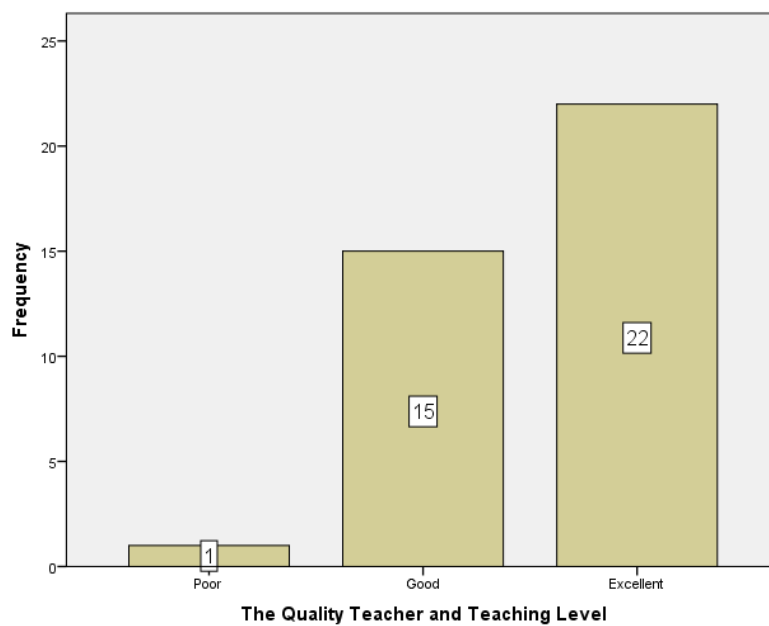


Figure 6. Quality teacher and teaching level

According to teaching method and skill, 2 (5.3%) students said poor, 16 (42.1%) said good, and 20 (52.6%) said excellent. It can shown in Figure 7 below:

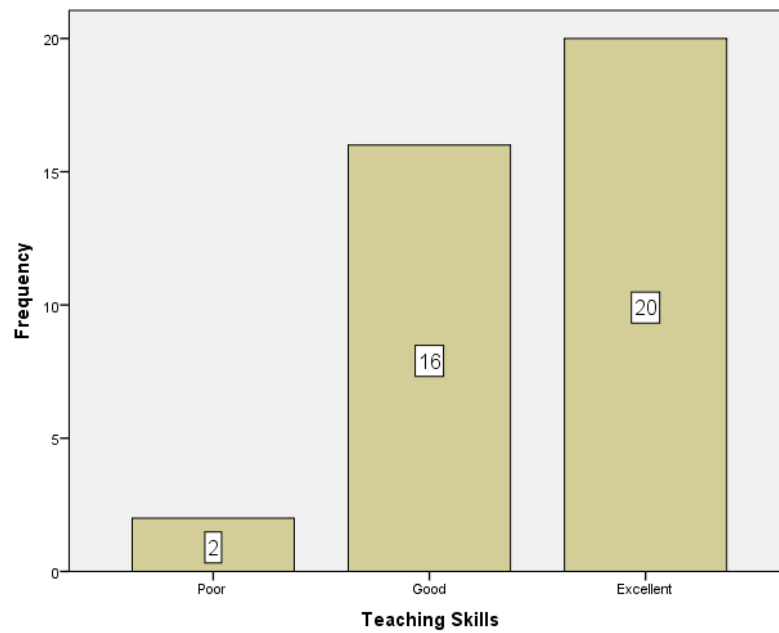


Figure 7. Teaching method and skill

According to practice teaching conditions, 2 (5.3%) students said poor, 21 (55.3%) said good, and 15 (39.5%) said excellent. It can shown in Figure 8 below:

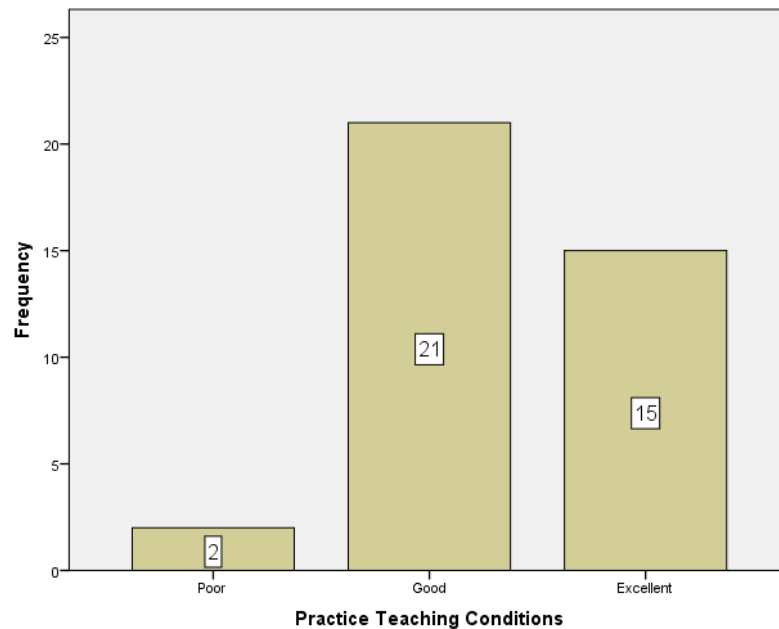


Figure 8. Practice teaching conditions

According to availability of references and online resources for the course, 1 (2.6%) students said not rich, 13 (34.2%) said rich, and 24 (63.2%) said very rich. It can shown in Figure 9 below:

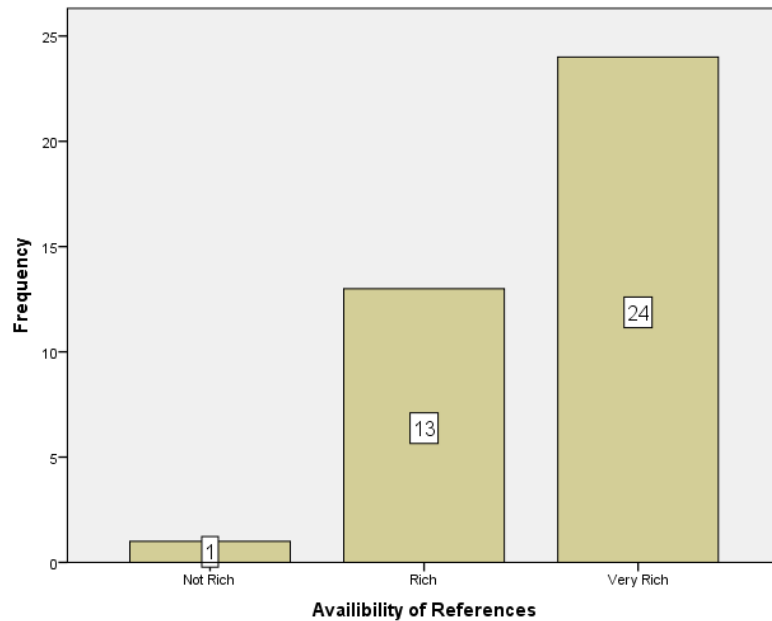


Figure 9. Availability of references and online resources for the course

According to student autonomous learning abilities and interest in study, 1 (2.6%) students said poor, 17 (44.7%) said good, and 20 (52.6%) said excellent. It can shown in Figure 10 below:

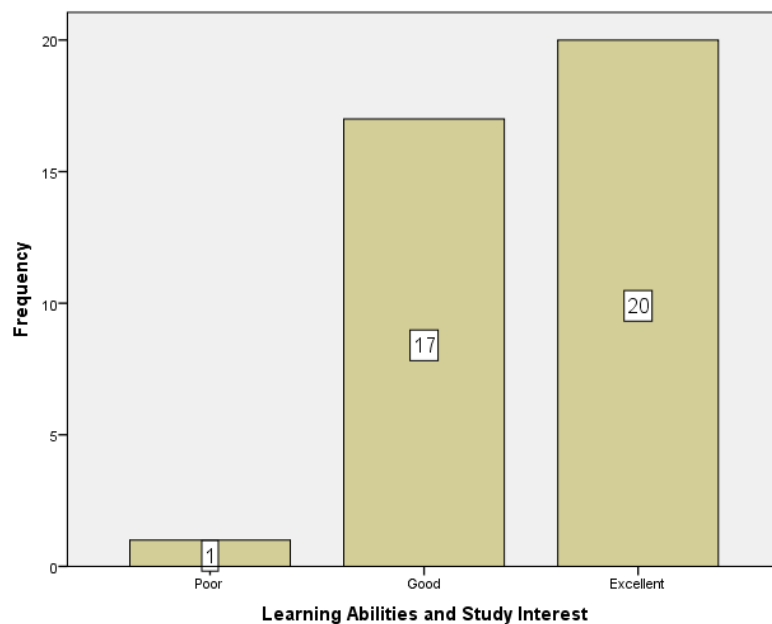


Figure 10. Student autonomous learning abilities and interest in study

According to student thinking mode and analytical ability, 1 (2.6%) students said poor, 15 (39.5%) said good, and 22 (57.9%) said excellent. It can shown in Figure 11 below:

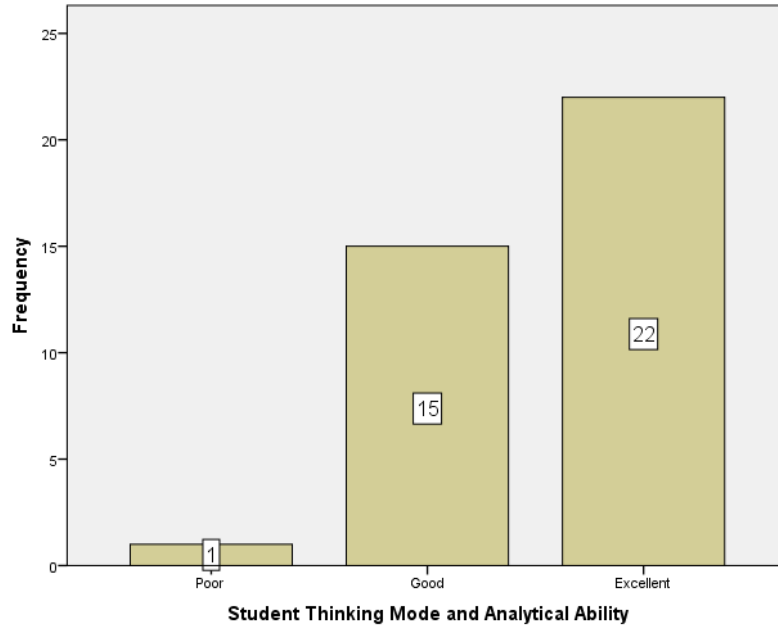


Figure 11. Student thinking mode and analytical ability

According to student impression for the statistics teaching quality, 2 (5.3%) students said poor, 17 (44.7%) said good, and 19 (50.0%) said excellent. It can shown in Figure 12 below:

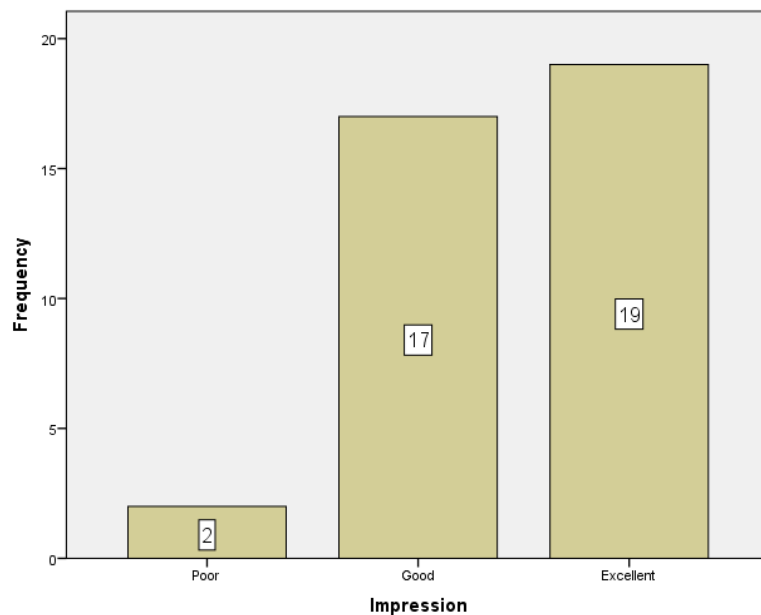


Figure 12. Sudent impression for the statistics teaching quality

According to student competency in statistics, 26 (68.4%) students said poor, 8 (21.1%) said good, and 4 (10.5%) said excellent. It can shown in Figure 13 below:

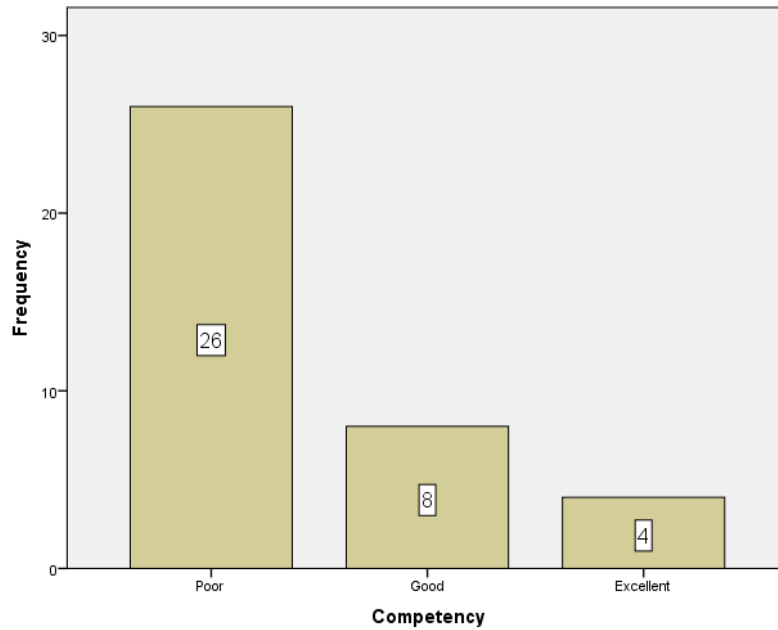


Figure 13. Sudent competency in statistics

Student competency in statistics consist of three types: poor mean students unable to analyze data by him/herself, good mean students able to analyze data by guide by others, and excellent mean students able to analyze data by him/herself.

Respondents consist of 14 males and 24 females. Statistics competency according to gender that there are 11 male students have poor statistics competency. Also, 2 male students have good statistics competency and 1 male student with excellence statistics competency. Then, 15 female students have poor statistics competency, 6 female students have good statistics competency and 3 female students have excellence competency. Table 1 shows frequency of respondents according to gender and statistics competency.

Table 1. Frequency of Respondents According to Gender and Statistics Competency

Gender	Statistics Competency			Total
	Poor	Good	Exellence	
Male	11	2	1	14
Female	15	6	3	24
Total	26	8	4	38

5. DISCUSSIONS

Based on the results of the study it was found that the respondent judged that all evaluation indicators were good. The indicators include the teacher's appearance, the quality of teaching, and the availability of books. Even so there are respondents who judge that some indicators are not good, but the number is not significant.

However, the competency of students in statistics is not satisfactory. Very few students have good statistical competency, namely students who able to analyze data by him/herself. Even the number of students who cannot use statistical methods to analyze data is very much, which is around 68.4%. So that statistical subjects have not succeeded in increasing student statistical competency.

Students of Christian Religious Education major come from various educational backgrounds, their mathematical abilities are not the same. There are students who have good mathematical skills, but some do not. The solution to this is that students are equipped with a mathematical basis. The initial meeting is used to learn the mathematical concepts that used in statistics course.

In addition, some students want the number of lesson hours for statistics to be added. As long as statistics course are studied for one semester, it should be added to two semesters so that students have plenty of time to study statistics. Of course this solution will affect the curriculum in general because the addition of study hours will affect the structure of the Christian Religious Education curriculum.

6. CONCLUSION

According to students evaluation, the performance of Statistics course teaching is good. However, student competency is not satisfactory because most student unable to use statistical methods when they are conducting research.

Some solutions to do are to improve students' mathematical abilities. Besides that, adding lessons can be used to improve student statistical competency.

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