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APPLICATION OF EXPERIMENTAL METHODS AND ASSINGMENT TO IMPROVE SCIENTIFIC WORK ON COMMUNICATED THE MORPHOLOGICAL CHARACTERISTICS OF GANDARIA (*Bouca macrophilla*) IN JUNIOR HIGH SCHOOL STUDENTS

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ABSTRACT

This study aims to determine the improvement of skills in communicated plant morphological characteristics in Junior High School students in Ambon used the application of the experimental method and the method of gived assignments. Find out the differences in the skills of communicating plant morphological characteristics in Junior High School students used the application of the experimental method and used the assignment method. The research used in this study is a qualitative and quantitative descriptive. The subjects of the study were 7th grade students. The samples taked in this study were divided into 12 classes, namely the experimental class, 4 classes, the assignment class, 4 classes and the control class, 4 classes each received different treatment. Data analysis was carried out experimentally. Results were calculated manually and Anacova statistical analysis. The result is a different test or comparative test with the dependent variable having an interval or ratio data scale, while the independent variables consist of a mixture of categorical data and numerical data.

Keywords: *communication, skills, experimental, assignment.*

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INTRODUCTION

The quality of education is not only determined by the education system but is determined by the quality of the teaching staff. The intended teaching staff is able to provide lessons to students so that they better understand and understand the lessons they are learning (Joynes et al, 2019). Therefore, the factors that play a role are learning methods in presenting material to students, besides that strategies and approaches play an important role in improving student learning outcomes and enthusiasm (Jaturaporn & Kusonwatthana, 2020). Teachers or teaching staff in presenting material do not only focus on theory, but rather help students to interact with various learning resources in obtaining knowledge, expertise, and skills and attitudes that lead to changes in behavior both cognitively, affectively, and psychomotorically (Maulana et al, 2020). Teachers help the student learning process by stimulating active learning and teachers or educators have an important role in developing students' interests, talents, creativity, and learning achievements. Through various forms of effective and efficient learning methods or techniques, which create advanced character or personality in expressing creative ideas through various methods applied to students (Shobahul et al, 2020)

Many things are done by the teacher to create a method that can see the level of creativity as well as can measure student learning outcomes in the learning process in the classroom (Kirbas, 2017). For example, giving assignments, giving assignments carried out by the teacher makes it very possible to see the extent to which students' comprehension after learning is given to students, at the same time these assignments can be used as a reference for assessing students' abilities to the material that has been taught in

class (M. Khalid, 2014 Elaine et al, 2016). Basically, the assignment method is a familiar method that has been implemented in the classroom for years. But in essence this method has not been maximally applied in the sense that according to the observations and experiences of researchers at school, sometimes many teachers or educators give assignments only to see student independence, and then are collected without any follow-up after the task is completed. So that the task is neglected as an effective, innovative, creative and efficient learning resource (Anip et al, 2019).

The science learning process, according to cognitive theory, teaches children to be able to identify, formulate problems, seek and find facts, analyze, interpret and draw conclusions. So, the teacher prepares props to facilitate, or students are invited to go out to class in an environment related to science material (Berek et al, 2016; Maison et al, 2019). It is this teacher's teaching model that is less varied which ultimately causes students' lack of interest in science subjects. This is because students are often faced with the problem of memorizing and listening to lectures from teachers regarding the topic of material classification and its changes. These activities make students bored to learn science and have an impact on the low learning outcomes obtained.

METHOD

The research method used in this research is a quasi-experimental design method, has a control group, but cannot fully function to control external variables that affect the implementation of the experiment, because variable control is only carried out on one variable that is considered the most dominant. This study involved groups, experiments, assignment groups, and control groups. The experimental group was taught using the experimental method and the assignment method using the assignment method while the control group was taught using the conventional STAD method, lectures and questions and answers. Statistical analysis used ANACOVA at a significant level (α) 0.05 then continued with the LSD follow-up test using SPSS 20.

DISCUSSION RESULT

Based on the results of the linearity test, it is known that the F deviation from linearity test value is 2,850 with a significance value of 0,063. the results of communication skills, concluded to meet the assumption of linearity can be seen in the table below:

Table 1. Results of the Linearity

			Sum of Squares	Df	Mean Square	F	Sig.
Skills Communicating * Experimental method Class	Between Groups	(Combined)	321.080	3	107.027	4.167	.008
		Linearity	141.5122	1	141.5122	5.509	.021
		Deviation from Linearity	179.5688	2	89.784	3.495	.034
	Within Groups		2594.720	2465.920	96	25.687	
	Total		2924.000	2787.000	99		
Communication Skills *STAD Control Class	Between Groups	(Combined)	1094.177	23	47.573	2.136	.007
		Linearity	448.908	1	448.908	20.154	.000
		Deviation from Linearity	645.269	22	29.330	1.317	.189
	Within Groups		1810.936	1692.823	76	22.274	
	Total		2924.000	2787.000	99		

Based on the results of the linearity test, it is known that the F deviation from linearity test value is 3,495 with a significance value of 0,034 because the significant value of the F Deviation from Linearity is not significant (0.034 > 0.05) then the relationship between the two variables, namely the application of the assignment method to the results of communication skills, is concluded to fulfill the assumption of linearity. The role of the teacher is very important here, because one of the factors that can help students develop their social skills in communicating is the learning method (Selcuk, 2015). The use of learning methods that stimulate students to learn to work together with friends and learning that gives students the opportunity to ask questions, express opinions freely (Hossain, 2015). Based on the results of observations, it was found that some students communicated which was not difficult, but it is different if students are required to speak in front of the class. They will have no trouble if they communicate with their own friends in everyday language (Azizah, 2019). But they will find it difficult if they are required to speak in front of the class, in

front of many friends and in front of their teacher. Especially in terms of expressing opinions, arguments, suggestions and answering questions from the teacher. Most of the students are afraid and find it difficult to express their opinions when learning is in progress. Students are afraid and lack confidence in presenting their arguments when the teacher asks them a problem (Tolapa and Ratnasari, 2022)

Students are more fluent when using their own local language, namely everyday language, using the Ambonese dialect. When they are asked to explain in Indonesian using their own language they will have difficulty, not so fluent and even confused in putting together words. Even if there are students who are good at explaining, surely only one or two students, not all students master communication skills (Dahnial, 2022). They lack confidence when the teacher asks them questions and they are asked to explain to their friends in front of the class (Muslim, 2017). On average, they always answer briefly what the essence of the answer is, even though by answering like that, other friends will definitely not understand what we answer without explanation (Wahyuningrum, 2013). Most of them also answered by reading textbooks on subject matter (Khairul and Permana, 2017). Some things that need to be considered in giving assignments and need to be avoided are assignments that are carried out, among others, taking notes on learning material, making summaries, answering questions, making papers. This causes students to feel bored, which can be seen through the deviations that are often carried out, such as the number of students who do their assignments by cheating on their friends, some even openly state that they forgot to do their assignments, left them at home, and many more in order to defend themselves. Himself from the teacher's anger (Alexius and Khakim, 2019). Still found students' understanding of the morphological characteristics of plants. The low understanding of students' concepts is due to the lack of use of learning media and assignments that only focus on tasks that do not vary (Nurrita, 2018). This is certainly one of the causes of low student learning outcomes.

CONCLUSION

There is increase in skills and differences in communicating the morphological characteristics of plants in grade 7 junior high school students in Ambon city using the application of the experimental method, and gived assignments.

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