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The Effect of Feedback in Google Classroom on Learning Outcomes and Student Motivation in Science Learning for Grade V Gugus Dewi Sartika

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Abstract: One of the issues facing the education world today is the impact of the Covid-19 pandemic that is now starting to infiltrate the education world. The government is trying to close all educational institutions. In addition, the government has restricted human movement outside the home to limit the number of people, aiming to break the chain of transmission of Covid-19. With this policy, schools can implement teaching and learning activities through distance or online learning. This study aims to (1) find out feedback in the google classroom to improve learning outcomes in science lessons in class V Elementary School, (2) find out feedback in google classroom to increase student motivation in science lessons in class V elementary schools. The method in this study uses quantitative research methods. While the type of research used is quasi-experimental. The research design used a non-equivalent control group design. The sample in this study is there are 2 elementary schools, namely from class V Public Elementary School Bendar as the experimental class and Public Elementary School Pekuwon as the control class. The experimental class was given learning by using feedback in google classroom, the control class was given treatment by learning using google classroom. The research instrument used learning outcomes tests and questionnaires for student motivation. The data analysis techniques used in this research are data description, normality test, homogeneity test, and hypothesis testing using t-test and N-Gain. Based on the results of the study, shows that there is an effect of feedback in the google classroom on the learning outcomes of class V elementary school in Gugus Dewi Sartika, Juwana District, material for the human digestive system. Based on the results of the t-count of 3.872 while the t-table with df = 38 of 2.0243 then arithmetic > t-table or 3.872 > 2.0243, so H0 rejected and Ha accepted. This means that there are differences in the learning outcomes of fifth-grade elementary school students on human respiratory organs using feedback in Google Classroom. Based on the output of the independent sample t-test, the value of t-count = 8.394 > t-table = 2.02108, and the value of Sig. (2-tailed) of 0.000 <0.05, it can be concluded that there is a difference in the average student motivation of the two groups, where the average of the experimental group is more than the average of the control group. The use of feedback in google classroom can be effective in improving learning outcomes and learning motivation because the feedback applied can increase activity and increase students' knowledge of the subject matter so that it can encourage learning outcomes and student learning motivation.

Keywords: Feedback, Google Classroom, Learning Outcomes, Motivation, Science

1. Introduction

One of the problems facing the world of education today is the impact of the Covid-19 pandemic which is now starting to penetrate the world of education. The government is trying to close all educational institutions (Cahapay, 2020). In addition, the government has also limited human activities outside the home, an effort to limit the number of people it aims to break the chain of the spread of Covid-19. With this policy, schools implement teaching and learning activities from distance or online learning.

By the instructions of the Minister of Education and Culture of the Republic of Indonesia, the issued Circular No. 4 of 2020 concerning the implementation of education policies in the emergency period of the spread of Covid-19 which was issued on March 24, 2020. As is currently being carried out, learning is carried out online or from home for all

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students to university students due to social restrictions as an effort to overcome or at least reduce the spread of the coronavirus. The results in the learning process that was originally face-to-face to online learning. With online learning, teachers and students must be able to use technology to carry out daily learning activities.

In situations and conditions like this, of course, all teachers or educators are required to replace online learning or through online media. Various platforms are used to carry out teaching so it needs to be supported by good learning facilities and the use of information technology (Rusman & Riyana, 2011). All students are expected to be able to own and use communication tools such as smartphones properly to support the learning process. Online learning with virtual face-to-face via smartphones is the most profitable thing to break the spread of Covid-19 and maintain the mental health of teachers and students from exposure to the virus (Jamaluddin et al., 2020).

Dewi (2020) explained that applications that can support the implementation of online learning include various discussion rooms such as Google Classroom, WhatsApp, Smart Class, Zennius, Quipper, and Microsoft. During Covid-19 implementation of learning done at home or online is the best solution. One of the online learning media that is currently developing and starting to be used is Google Classroom, which is a special application used for online learning that can be done remotely, making it easier for teachers to create, group, and distribute assignments in classrooms Google Classroom and students will also be able to study, listen, read and send assignments remotely.

Learning online or online has a positive impact, namely the experience and use of technology in a positive way as well as realizing the challenges of teachers in the 21st Century (Harun et al., 2021). Online or online learning is expected to bring changes in the education system, the material to be taught, the learning carried out as well as the obstacles faced by both teachers, students and education providers. Online or online learning in addition to stopping the spread of Covid-19 is also expected to be able to become an alternative in overcoming the problem of independent learning that allows students to learn broader knowledge material in the internet world so that it creates student creativity in knowing science and can implement 2013 Curriculum policies (Darmalaksana et al., 2020).

During the Covid-19 pandemic situation, online learning is regulated through the Ministry of Education and Culture Circular regarding the Implementation of Education in the Covid-19 Emergency Period, there is a policy, namely online learning to provide a meaningful learning experience, not to be an obstacle in completing all curricula for graduation, learning Emphasis is placed on developing life skills, namely, the Covid-19 pandemic and the assignment of assignments can be varied between students, following their talents and interests as well as their respective circumstances, including reviewing the gap in learning facilities owned at home (Kemendikbud, 2020).

Online or online learning in science subjects poses a problem because in essence science learning is learning that includes abstract concepts and events that require observation, so students must be required to see what can be learned (Rusman & Riyana, 2015). Online learning creates obstacles for students who do not understand science lessons so that they have difficulty in learning science, in addition to science there is also a practicum which aims to further clarify teaching materials that can be observed directly. However, the absence of face-to-face learning makes students unable to understand directly and focus on split learning. This is a challenge for a teacher in implementing policies in learning so that students stay focused on learning science in addition to the creativity of teachers in using learning strategies and learning methods to attract students' attention to keep following learning and produce maximum learning outcomes (Hidayati, 2007).

The purpose of providing feedback is to increase students' knowledge, skills, and understanding of general skills or a particular area, such as problem-solving, and various types of feedback can be used for other purposes, for example, feedback is directed at the goal of making improvements to a particular task and given immediately. Black and William (1998) stated that there are two main functions of feedback, namely the directive and facilitative functions. Directive feedback is the feedback that tells students what needs to be improved or revised. Directive feedback tends to be more specific than facilitative feedback, which provides comments and suggestions to assist students in revising and conceptualizing. Constructive effects of feedback (Aslam & Khan, 2020) in the learning process, namely: 1) helping students construct internal reality by providing intellectual means, 2) helping students solve problems in contextual settings, 3) appear in the form of peer-to-peer negotiations, 4) guides representational models, 5) guides students through unstructured domains and reminds students of their goals, and 6) challenges students to continue to develop.

Whitney & Ackerman (2020) interprets feedback as all information both concerning output and transformation. This feedback is needed to improve input and transformation. Input here is defined as students who have just entered learning. The output is the student after going through the learning process, while the transformation is the processor itself or in this case the learning.

Providing feedback to students is expected to improve learning outcomes and motivation of grade 5 students Gugus Dewi Sartika. This is in line with research conducted by Adiansha (2017) research results of learning activities that have been carried out for three cycles, and based on all the discussions and analyzes that have been carried out, it can be concluded as follows: 1) Learning with the method of giving feedback has a positive impact on improving student achievement which is marked by an increase in student learning mastery in each cycle, namely cycle I (69.44, cycle II (80.56%), cycle III (88.89%), 2) The application of learning with the method of giving feedback has a positive influence, namely it can increase student learning motivation which is shown with the average student answers stating that students are interested and interested in learning with the method of giving feedback so that they become motivated to learn.

1.1 Conceptual Framework

According to Altmiller (2016), feedback is information that athletes would receive from coach/trainer or environment regarding the level of their motor skill or performance. It serves as a groundwork for the athletes learning development. Feedback, according to him, emphasizes more training activities with information from the coach related to the level of motor skills or the athlete's appearance as the basis for developing the athlete's appearance.

Feedback is a reinforcement of the activity so that it can maintain and respond to the next activity so that the results can be improved. Feedback is not just about weaknesses. The student will respond if teachers are encouraging as well as allowing mistakes, emerging capabilities, and give ideas for directing further learning (Abdurrahman, Siregar, & Umam, 2018).

Meanwhile, Henderson, Ryan, & Phillips (2019) defines feedback as all information, both related to output and transformation. This feedback is needed to improve input and transformation. Input here is defined as students who have just entered learning. The output is the student after going through the learning process, while the transformation is the processor itself or in this case the learning. Feedback in learning activities is an event that provides certainty to students that learning activities have or have not achieved their goals.

According to Archer (2010) that feedback is the provision of information obtained from tests or other measuring tools to students to improve the achievement of learning outcomes.

From the opinions expressed above, it can be concluded that feedback is a technique or method of returning students' work or test questions that are expected to motivate students towards improvement and improvement in student learning achievement. Feedback will be useful if the teacher and students review the answers to the test questions, both those that are answered correctly and those that are answered incorrectly, and students are allowed to correct the wrong answers.

According to Mohd Shaharanee, Jamil, & Mohamad Rodzi, (2016)) google classroom was introduced in August 2014 as a tool for assisting the implementation of learning, helping teachers to organize and make class assignments easily and quickly, and the communication process between students and teachers without being limited by space and time. Google Classroom learning media online so that it can make it easier for teachers to create, share and group each task paperless (Tamin & Mohamad, 2020).

Fauzan & Arifin (2019) states that learning outcomes can be interpreted as the level of student success in studying subject matter at school which is expressed in scores obtained from test results to know several certain subject matter.

Umamah (2019), learning outcomes are a process carried out by individuals to obtain a new behavior change as a whole, as a result of the individual's own experience in interaction with his environment. Learning outcomes are the results achieved by students in the form of numbers after being given a test of learning outcomes at the end of a meeting, mid-semester, or end of the semester.

Batubara, Hamdani, & Paderan (2021), suggests that motivation is a change in energy in a person which is characterized by the emergence of feelings and reactions to achieve goals. Motivation contains a desire that activates, moves, channels, and directs individual attitudes and behavior. According to Winkel quoted by Kusnadi et al. (2018), says that learning motivation is the overall driving force within oneself students that lead to learning activities and ensures the continuity of the learning activities so that what the student wants will be achieved.

Seriousness in learning requires strong motivation. Without motivation, good learning outcomes will be difficult to achieve, because motivation is the cause of a process of energy change in each individual. From this understanding of motivation, the authors conclude that motivation is a mental strength or drive within an individual in the form of a desire and a will to achieve the desired goal. Therefore, motivation is an impulse from within that can lead to individual strength to move or behave to meet their needs.

1.2 Research Purposes

This research was conducted to determine the effect of feedback in google classroom on learning outcomes and student motivation in the fifth-grade science lesson Gugus Dewi Sartika. The results of the collected data will be used as a basis for determining the extent of the influence of feedback in Google Classroom on student learning outcomes and motivation.

2. Methodology

2.1 Research Design

This research uses quantitative research methods. While the type of research used is quasi-experimental. This type of research has a control group but does not fully function to control external variables that affect the implementation of the experiment. A quasi-experiment is an experimental design that does not randomize the sample taking samples. Researchers use the quasi-experimental because in this study there are external variables that cannot be controlled by the researcher. According to Sugiyono (2014: 77), Quasi-Experimental Design has a control group, but it cannot function fully to control external variables that affect the implementation of the experiment.

The research design used in this study was a non-equivalent control group design (control group test design without being random). Before being given treatment, both the experimental group and the control group were given a test. This

test is given to know the condition of the group before being given treatment. Then after being given treatment, the experimental group and the control group were given a test to determine the condition of the group receiving the treatment.

In this study, the experimental group was given learning using feedback in google classroom, while the control group was given treatment with learning that only used google classroom. The experimental group and the control group have almost the same characteristics because they are located in one cluster, namely the Dewi Sartika cluster. What distinguishes the two groups is that the experimental group is given a certain treatment, while the control group is given the usual treatment.

2.2 Research Respondents

The research subjects were all fifth-grade elementary school students in the Dewi Sartika cluster, Juwana district, Pati district. Sugiyono (2016: 80) suggests that population is defined as a generalization area consisting of objects/subjects that have certain qualities and characteristics that are applied by researchers to be studied and then draw conclusions. The population studied were all fifth-grade elementary school students in the Dewi Sartika Cluster, Juwana District, Pati Regency as many as 7 public elementary schools.

The sample in this study is there are 2 elementary schools, namely from class V Public Elementary School Bendar as an Experiment class while for the control class, namely Class V Public Elementary School Pekuwon.

According to Sugiyono (2017: 60), variables are everything in any form determined by the researcher to be studied so that information is obtained about it, then conclusions are drawn. The variables in this study include independent variables or independent variables and dependent variables or dependent variables. The independent variable in this study is the effect of feedback in google classroom as X which is applied to the material of human digestive organs. The dependent variable of this research is learning outcomes as Y1 and student motivation as Y2.

The steps taken by the researchers to develop the test instrument include (1) compiling a grid of questions based on indicators of achievement in learning mathematics in flat-shaped materials, (2) compiling test questions and answer keys, the form of questions in the form of a description test containing indicators of cognitive aspects based on bloom's taxonomy from C3 to C5, (3) test questions to fifth-grade students of Public Elementary School No. 2 Trimulyo to determine the validity of the questions, level of difficulty, discriminating power, and reliability of the questions.

A research instrument is a tool used to measure research variables (Sugiyono 2017: 148). In this study, the researcher used an instrument to reveal the necessary data in the form of a test to measure student learning outcomes and in the form of a questionnaire to measure motivation.

The quantitative data in this study were obtained from the results of the pretest and posttest of students' motivation and learning outcomes. The data obtained were analyzed using the average increase data test. The N-gain was obtained by comparing the difference between post-test and pre-test with the difference between the SMI and scores. N-gain in this study is used to see the increase in motivation and learning outcomes. The N-gain is determined by the following the Table 1.

Table 1: Criteria N-gain

Nilai N-Gain	Criteria
g) ≥ 00,70	High
0,30 < (g) < 0,70	Medium
(g) ≤ 0,30	Low

3. Results

3.1 Description of Learning Outcome Variable Data

Description of data is a picture of data obtained by researchers from the field from each variable. The data obtained from the field will be described descriptively. Data collection was obtained by distributing research instrument questionnaires via a google form. Questionnaires were distributed to 40 students from 2 classes in different elementary schools, namely Public Elementary School Bendar and Public Elementary School Pekuwon. The results of the analysis of student learning outcomes data descriptions shows in the Table 2.

Table 2: Analysis of Question Validity Test

N		Statistics	
		Control Class	Experiment Class
	Valid	20	20
	Missing	0	0
Mean		69.3000	79.6500
Median		73.0000	83.5000
Mode		73.00	93.00
Std. Deviation		16.97087	16.04689
Minimum		33.00	47.00
Maximum		93.00	100.00
Sum		1386.00	1593.00

Based on the table the value of the validity test shows that the average value of the control class is 69.30 and the experimental class is 79.65. In the test values for the control class and the experimental class, there is a significant difference in the average value, which is 10.35 points adrift.

Based on the data above, a bar chart can be made for the results of the validity of the test questions for each class. The diagram of the results of the descriptive analysis are:

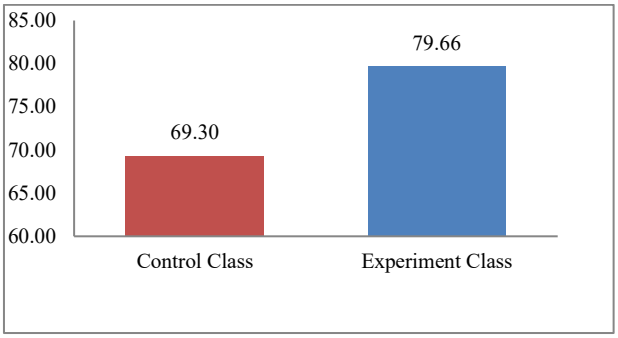


Fig. 1: Result of data analysis of the validity test of questions

3.2 Description of Feedback Data in Google Classroom

Implementation of feedback in Google Classroom in this study was measured using 9 indicators namely Google Classroom Implementation, Interactivity, Independence, Accessibility, Ease of communication, Ease of obtaining teaching materials, Ease of reviewing lessons, Students become active, and Less interaction. The 9 indicators were then made into 16 questions and measured using a Likert scale. The scoring score used is a score of 1-4. The data collection technique used a questionnaire distributed via a google form. Distributed to 40 respondents. The highest score obtained was 55. While the lowest score obtained was 25. For a more detailed description of the results of the feedback in google classroom, see the Table 3.

Table 3: Usage data Google Classroom

No	Score Interval	Frequency	Percentage	Criteria
1	30-38	22	55%	Very Low
2	39-47	14	35%	Low
3	48-56	2	5%	Enough
4	57-65	2	5%	High
5	66-74	0	0%	Very High
Total		**40**	**100%**	

From the table above, it can be seen that the feedback in Google Classroom is in very low condition 22 students (55%), low 14 students (35%), only 2 students (5%), high 2 students (5%) and very high 0 students (0%). It can be concluded that in general, feedback in the google classroom during the COVID-19 pandemic in fifth-grade elementary school on science subject material for the human digestive system is in the very low category. The following will present a graph regarding the level of feedback in Google Classroom to illustrate it more clearly.

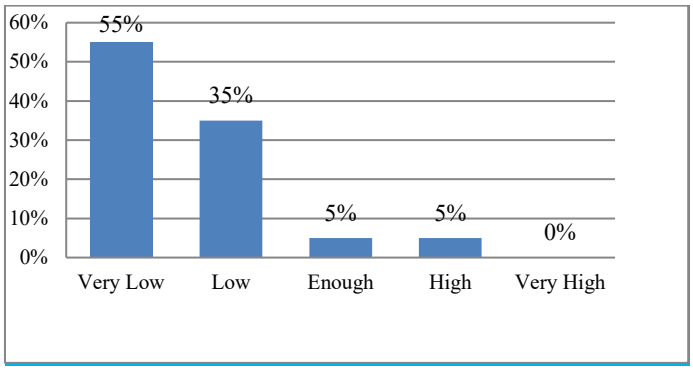


Fig. 2: Diagram of feedback variables in Google classroom

3.3 Description of Student Learning

Motivation Variables of Learning Motivation in this study were measured using 6 indicators, namely students' interest and attention to the lesson, students' enthusiasm to carry out their learning tasks, looking for material from the internet, and students' responsibilities in doing their learning tasks, good reactions. shown by students to the stimulus given by the teacher, and feeling happy and satisfied in doing the given task. The six indicators were then tested via google form on 40 students from 2 classes in different elementary schools, namely Public Elementary School Bendar and Public Elementary School Pekuwon.

Table 4: The Results of the Analysis of the Data Description of Student Learning Outcomes

		Statistics	
		Control Class	**Experiment Class**
N	Valid	20	20
	Missing	0	0
Mean		13.2000	16.9500
Median		13.5000	17.0000
Mode		14.00	19.00
Std. Deviation		1.67332	1.70062
Minimum		8.00	14.00
Maximum		16.00	19.00
Sum		264.00	339.00

Based on the table the value of the validity test shows that the average value of the control class is 13.20 and the experimental class is 16.95. In the test scores for the control class and the experimental class, there is a significant difference in the average value, which is 3.75 points.

Based on the data above, a bar chart can be made for the results of the validity of the test questions for each class. Figure 3 show the diagram of the results of the descriptive analysis.

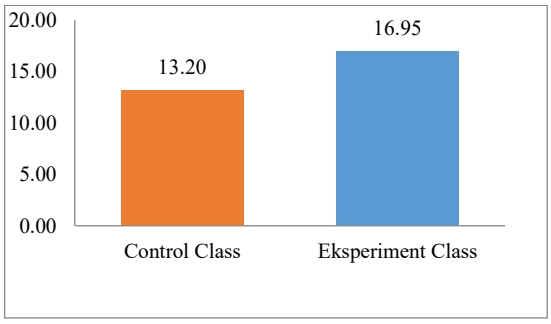


Fig. 3: Diagram of the results of data analysis of the validity of learning motivation test

3.4 Analysis Prerequisite

Test The analysis prerequisite test consists of a normality test and a data homogeneity test. This prerequisite test is used to test whether the research data is feasible to test the hypothesis. It is carried out before testing the hypothesis.

3.4.1 Normality Test

The normality test in this study used SPSS version 25 with the Shapiro-Wilk test for normality. The use of the Shapiro-Wilk test because the number of samples from each class is 50. The decision-making for the normality test is:

H_o = significance value > 0.05 (second class students' scores are normally distributed)

H_i = significance value < 0.05 (second class students' scores are not normally distributed)

The results of the calculation of the normality of the data in the experimental class and control class are presented in the table below.

Table 5: Normality test results

Tests of Normality							
Science Learning Outcomes	Class	Kolmogorov-Smirnov			Shapiro-Wilk		
		Statistic	df	Sig.	Statistic	df	Sig.
	Experiment Class	.178	20	.096	.941	20	.256
	Control Class	.177	20	.103	.929	20	.150
a. Lilliefors Significance Correction							

From the calculation of the normality test of the experimental class and the experimental control class using the Shapiro-Wilk test with a significance value of 0.05, the calculated significance value is:

- The experimental class is 0.256
- Control class is 0.150
- Based on these results, the experimental class value data and control classes are normally distributed because the sig value for all classes is > 0.05. So, all data are normally distributed because the sig value for all classes is > 0.05.

3.4.2 Homogeneity

The homogeneity test was carried out after the normality test. The homogeneity test or variance similarity test is intended to determine whether the groups in the sample have the same variance or not. If the research data is normally distributed, then the homogeneity test is carried out.

At the homogeneity test stage of the control class and experimental class using data from student test scores. The decision-making of the homogeneity test is:

H_o = significance value > 0.05 (the score of students in both classes is homogeneous)

H_i = significance value < 0.05 (the value of students in both classes is not homogeneous)

Table 6: Test results

Test of Homogeneity of Variances					
		Levene Statistic	df1	df2	Sig.
Science Learning Outcomes	Based on Mean	.078	1	38	.782
	Based on Median	.114	1	38	.737
	Based on Median and with adjusted df	.114	1	36.498	.737
	Based on trimmed mean	.084	1	38	.774

Based on the homogeneity test table, shows the results of the homogeneity test of the control class and experimental class values. The test tool used is the lavender test. With a significance value of 0.05. In the control class and the experimental class, the sig table value (Based on Mean) is 0.782 so the sig count > sig table is 0.782 > 0.05. It can be concluded that the homogeneity test on student scores and data from the experimental class and control class has the same or homogeneous variance.

3.4.3 Research Hypothesis Test

To answer the formulation of the problem proposed, it is necessary to test the hypothesis by using an independent test sample t-test and N-Gain was an independent sample t-test conducted to determine the difference in student learning outcomes using online learning without feedback with online learning using feedback in the experimental class. This data processing is carried out using SPSS version 25 statistics.

a. Independent Sample t test (t-test) of Student Learning Outcomes Hypothesis

Independent Sample t-Test is used to test the hypothesis. The hypothesis is formulated in the form of a statistical hypothesis (one-sided test). The test criteria are t-count compared to t-table with a significant level of a = 5% with dk = n1+ n2-2 2. The decision making for the t test is:

- If t_{count} t $_{table}$ then H_o accepted and Ha is rejected
- If $t_{count} > t_{table}$, then H_o rejected and Ha is accepted

According to Mishra et al. (2019) what is meant by t-test is an analysis used for the comparison of an independent variable that aims to find out the difference between the hypothesized variables. This t-test difference test can be used by researchers to test how far the influence of independent variables that can be used individually in explaining a dependent variable is partial. Then, after analyzing the data, it is continued by comparing the significance with a significant level of 0.05 to find out whether the null hypothesis (H0) and the alternative hypothesis (Ha) are rejected or accepted. The hypothesis "There are differences in motivation and learning outcomes of fifth grade elementary school students through feedback in google classroom on human digestive tract material."
Based on the t-test in Table 6 and independent samples test in the Table 7 shows:

- The average value for the two classes there is a different, the experimental class is as big as 79.65 while the control class is 70.00
- T-count is 3.872 while t table with df = 38 is 2.0243 then t> t-table or 3.872 > 2.0243, so H0 rejected and Ha is accepted
- This means that there are different motivation and learning outcomes for class V students on the subject of human breathing in the experimental class and the control class.

Table 6: T-Test

Group Statistics					
	Class	**N**	**Mean**	**Std. Deviation**	**Std. Error Mean**
Science Learning Outcomes	Experiment Class	20	79.6500	16.04689	3.58819
	Control Class	20	70.0000	16.54658	3.69993

Table 7: Independent Sample Test

		Levene's Test for Equality of Variances		**t-test for Equality of Means**						
		F	**Sig.**	**t**	**df**	**Sig. (2-tailed)**	**Mean Difference**	**Std. Error Difference**	**95% Confidence Interval of the Difference**	
									Lower	**Upper**
Science Learning Outcomes	Equal variances assumed	.078	.782	3.872	38	.000	9.65000	5.15409	-.78390	20.08390
	Equal variances not assumed			3.870	37.964	.000	9.65000	5.15409	-.78422	20.08422

b. Student's Learning Motivation t-test

The increase of students' learning motivation in the experimental class and control class was analyzed using the paired sample t test (dependent sample t test). The results of the paired sample t test are listed in the Table 8.

Table 8: Paired sample test results

		Paired Differences					t	df	Sig. (2-tailed)
		Mean	Std. Deviation	Std. Error Mean	95% Confidence Interval of the Difference Lower	Upper			
Experiment	Pre-Test Experiment-Post Test Experiment	-7.051	2.470	.396	-7.852	-6.250	17.826	20	.000
Control	Pre-Test Control-Post Test Control	-3.270	2.673	.440	-4.162	-2.379	7.441	20	.000

The results of the experimental group pair in the table above obtained the value of arithmetic = 17.826 > t-table = 2.02108 and the value of Sig. (2-tailed) of 0.000 <0.05, it can be concluded that there is a difference in the average student motivation for learning 1 and learning 2 in the experimental class. Based on the results of the control group pair, the value of t-count = 7.441 > t-table = 2.02108, and the value of Sig. (2-tailed) of 0.000 <0.05, it can be concluded that there is a difference in the average student motivation for learning 1 and learning 2 for the control class.

Differences in student motivation in the experimental class with the control class were analyzed using the Independent Sample t-Test as shown in the Table 9.

Table 9: Results of Independent Sample T-Test

		Levene's Test for Equality of Variances		t-test for Equality of Means						
		F	Sig.	t	df	Sig. (2-tailed)	Mean Different	Std. Error Difference	95% Confidence Interval of the Difference Lower	Upper
Experiment	Equals variances assumed	.182	.671	8.394	38	.000	3.744	.446	2.855	4.632
Control	Equals variances not assumed			8.407	39.999	.000	3.744	.445	2.856	4.631

Based on the output of the table above, the value of t-count = 8.394 > t-table = 2.02108, and the value of Sig. (2-tailed) of 0.000 <0.05, it can be concluded that there is a difference in the average student motivation of the two groups, where the average of the experimental group is more than the average of the control group.

c. N-Gain Test N-Gain Test Student Learning Outcomes

The gain test is the difference in the value of the experimental class and the control class. The gain value will indicate whether there is an increase in the learning outcomes of fifth-grade elementary school students on the human digestive system material after the lesson is carried out by the teacher. the implementation of the gain test was carried out in each class, both the experimental class and the control class. The gain test is carried out with the help of SPSS version 25. The results of the Gain test for each class show in the Table 10.

Table 10: N-gain Test Results for Experimental Class and Control Class

	Class	Descriptive		Statistic	Std. Error
N-Gain	Experiment	Mean		74.4369	4.55555
		95% Confidence Interval for Mean	Lower Bound	64.9020	
			Upper Bound	83.9718	
		5% Trimmed Mean		75.7118	
		Median		78.7879	
		Variance		415.060	
		Std. Deviation		20.37303	
		Minimum		25.93	
		Maximum		100.00	
		Range		74.07	
		Interquartile Range		13.36	
		Skewness		-1.090	.512
		Kurtosis		.688	.992
	Control	Mean		61.0932	5.54915
		95% Confidence Interval for Mean	Lower Bound	49.4787	
			Upper Bound	72.7077	
		5% Trimmed Mean		61.3536	
		Median		64.0530	
		Variance		615.861	
		Std. Deviation		24.81654	
		Minimum		17.50	
		Maximum		100.00	
		Range		82.50	
		Interquartile Range		31.57	
		Skewness		-.311	.512
		Kurtosis		-.686	.992

Based on these data, the results of the N-Gain percent calculation are:

- In the Experimental Class, the N-Gain percent value is 74.4369 or 74% which is interpreted to mean that learning uses feedback in the google classroom with a "high" or effective N-Gain score because of the N-Gain score above > 0.7. With a minimum N-Gain score of 25.93% and a maximum score of 100%. This means that learning using feedback on Google Classroom is effective in improving learning outcomes for the human digestive system.
- Meanwhile, for the control class, the N-Gain value is 61.0932 which is interpreted as bringing learning without using feedback in the google classroom with an N-Gain score of "medium" or less effective because the N-Gain score lies between 0.3 < n-Gain 0,7. With a minimum N-Gain score of 17.50% and a maximum score of 100%. This means that learning without using feedback on Google Classroom is less effective in improving learning outcomes for the human digestive system.

d. N-Gain Test of Student Learning Motivation

The average increase in students' learning motivation can be seen from the difference in the results of student learning motivation scores in learning 1 and learning 2. The results of the increase are measured using the normalized gain test. Details of the results of individual improvement in the experimental class and control class can be seen in the following Table 11.

Table 11: Increase in the n-gain index of student learning motivation

No.	Improvement Category	Experiment Class		Control Class	
		Average Increase	Number of Students	Average Increase	Number of Students
1	High	0.82	13	0.77	10
2	Average	0.58	6	0.58	6
3	Low	029	1	0.20	4
Overall average		**0.72 (High Category)**		**0.60 (Medium Category)**	

Based on the table above, it can be seen that in the experimental class 20 students were experiencing an increase in the high category, 6 students experienced an increase in the medium category, and 1 student experienced an increase in the low category. The average increase in students' learning motivation in the experimental class as a whole is 0.72 in the

"high" category. In the control class, 10 students experienced an increase in the high category, 6 students experienced an increase in the medium category and 4 students in the low category with the overall average of the control class being 0.60 in the "medium" category.

4. Discussion

4.1 Feedback in Google Classroom on Student Learning Outcomes

In the description of the data, there are differences in the average value of the experimental class and the control class on student learning outcomes. The control class value is 61.69 and the experimental class value is 74.43. This difference shows that there is an increase of 12.74 in the use of feedback in google classroom on the learning outcomes of fifth-grade elementary school students. This is the opinion of Ansong-Gyimah (2020) who states that the use of google classroom affects students' learning motivation and also has a positive effect on learning achievement. A readiness has a big effect on the learning motivation obtained and affects student learning outcomes. So that by providing feedback in Google Classroom, students will better understand the learning material and have motivation in learning.

Based on the results of the t-count of 3.872 while the t-table with df = 38 of 2.0243 then arithmetic > t-table or 3.872 > 2.0243, so H0 rejected and Ha accepted. This means that there are differences in the learning outcomes of fifth-grade elementary school students on human respiratory organs using feedback in Google Classroom.

The results of the n-Gain percent test in the class are 74.4369 or 74% which is interpreted to mean that learning uses feedback in the google classroom with a "high" or effective N-Gain score because the N-Gain score is above > 0.7. With a minimum N-Gain score of 25.93% and a maximum score of 100%. This means that learning using feedback on Google Classroom is effective in improving learning outcomes for the human digestive system. While in the control class the n-Gain percentage value is 61.0932 which is interpreted as bringing learning without using feedback in the google classroom with an n-Gain score of "medium" or less effective because of the N-Gain score lies between 0.3 < n-Gain 0, 7. With a minimum N-Gain score of 17.50% and a maximum score of 100%. This means that learning without using feedback on Google Classroom is less effective in improving learning outcomes for the human digestive system. This shows that the use of feedback in google classroom in the experimental class is more effective than learning using google classroom in the control class which does not use feedback in the learning process.

4.2 Feedback in Google Classroom on Student Learning Motivation

The results of the analysis of the average value of increasing students' learning motivation can be seen from the difference in the results of students' learning motivation scores in learning 1 and learning 2 in the experimental class and the control class in the n-Gain percent test. Details of the results of individual improvement in the experimental class 20 students experienced an increase in the high category, 6 students experienced an increase in the medium category, and 1 student experienced an increase in the low category. The average increase in students' learning motivation in the experimental class as a whole is 0.72 in the "high" category. In the control class, 10 students experienced an increase in the high category, 6 students experienced an increase in the medium category and 4 students in the low category with the overall average of the control class being 0.60 in the "medium" category.

In addition, based on the results of the paired sample test in the experimental group, the value of t-count = 17.826 > t-table = 2.02108, and the value of Sig. (2-tailed) of 0.000 <0.05, it can be concluded that there is a difference in the average student motivation for learning 1 and learning 2 in the experimental class. The results of the control group pair obtained the value of t-count = 7,441 > t-table = 2,02108 and the value of Sig. (2-tailed) of 0.000 <0.05, it can be concluded that there is a difference in the average student motivation for learning 1 and learning 2 for the control class. This means that there are differences in the learning motivation of fifth-grade elementary school students in the matter of human breathing using feedback in the google classroom.

Based on the output of the independent sample t-test, the value of t-count = 8.394 > t-table = 2.02108, and the value of Sig. (2-tailed) of 0.000 <0.05, it can be concluded that there is a difference in the average student motivation of the two groups, where the average of the experimental group is more than the average of the control group.

The results of this study are relevant to the research conducted by Hussaini et al. (2020) which states that there is an increase in learning outcomes using Google classroom, it can be proven by the average value of the pre-test of 39.76 and becomes 76.05 when using application google classroom.

Another research with relevant results is the research of Yaqin (2021) whose study concludes that the use of Google Classroom in online learning during the pandemic is effectively used to improve student learning outcomes in social studies learning. The results showed that the use of Google Classroom increased student learning outcomes, namely 56% in the high category, namely 14 students, and 36% in the very high category, namely 9 students so that there were no more students in the low and very low categories.

From the results of the volunteer research above and the opinions of experts, it can be concluded that feedback is a technique or method of returning students' work or test questions that are expected to motivate students towards improvement and improvement in student learning achievement. Feedback will be useful if the teacher and students review the answers to the test questions, both those that are answered correctly and those that are answered incorrectly, and students are allowed to correct the wrong answers.

5. Conclusions and Recommendations

As revealed in this study, this study uses quantitative research methods. While the type of research used is quasi-experimental. This type of research has a control group but does not fully function to control external variables that affect the implementation of the experiment.

In this study, the experimental group was given learning using feedback in google classroom, while the control group was given treatment with learning that only used google classroom. The experimental group and the control group have almost the same characteristics because they are located in one cluster, namely the Dewi Sartika cluster. What distinguishes the two groups is that the experimental group is given a certain treatment, while the control group is given the usual treatment.

The use of feedback in google classroom can be effective in improving learning outcomes and learning motivation for class V because the feedback applied can increase activity and increase students' knowledge of the subject matter so that it can encourage learning outcomes and student learning motivation.

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Conflict of Interest

The authors declare no conflicts of interest.

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