

CHAPTER IV

RESEARCH RESULTS AND DISCUSSION

This chapter discusses the research findings and discussion, the research findings present the data obtained from the distribution of research instruments, namely questionnaires and documentation. There are several points presented in this study, namely data presentation, hypothesis testing and discussion of findings.

A. Data Presentation

As stated in the previous chapter, there are two research problems in this study. First, is there any effect of video recording on social media on the speaking skills of students at SMA Muhammadiyah 1 Sumenep. Second, how significant is the effect of video recording on social media on the speaking skills of students at SMA Muhammadiyah 1 Sumenep. Therefore, the researcher will present the data obtained from the distribution of the questionnaire which will be compared with other data.

The data to be described was obtained from respondents during the research process related to the variable X (video recording) and variable Y (speaking skills).

1. Questionnaire Results

The population in this study were students of class XI SMA Muhammadiyah 1 Sumenep, and the researchers took all 50 students as samples from 50 populations. These results are obtained from the use of quota sampling.

To obtain questionnaire data, the researcher distributed 50 samples from all classes in eleventh grade. the questioners, the researcher gave it to all the students of eleventh grade which consisted of 50 students. The questionnaire consisted of 20 statements about the impact of video recording on the speaking skills of eleventh grade students of SMA Muhammadiyah 1 Sumenep. So that researchers will only present data on independent variables. While the questionnaire has five alternative choices (Likert scale), namely: strongly disagree, disagree, neutral, agree and strongly agree. This alternative is used to convert data into numeric data. Each alternative choice has its own score, which is as follows:

- a. If the respondent chooses "strongly agree" will get 5 scores.
- b. If the respondent chooses "agree" will get 4 scores.
- c. If the respondent chooses "neutral" will get 3 scores.
- d. If the respondent chooses "disagree" will get 2 scores.
- e. If the respondent chooses "strongly disagree" will get 1 score.

Then the answers from respondents will be assessed with a Likert scale and the data must be valid and reliable. Meanwhile, to determine the validity of the data, the researcher used construct validity.

- a. Video questionnaire presentation

Researchers obtained data by distributing questionnaires to eleventh grade students of SMA Muhammadiyah 1 Sumenep. The research was carried out on January 06, 2022 to January 20, 2022. The stages carried out by researchers include:

- 1) Meet with teachers to schedule questionnaires to be given to students.
- 2) Distribute questionnaire sheets that have been approved by the teacher.
- 3) Provide an explanation to students about the research questionnaire.
- 4) Collect student questionnaire answers and video scores of students' speaking skills from the teacher.

Table 4.1
Questionnaire Video Recording Results

No	Name	Score
1.	Abu Zubriadi	72
2.	Aditya	73
3.	Ahmad Hamdan H	60
4.	Amiliya	75
5.	Amirul Wathan A	73
6.	Arrifatul Shabrina	75
7.	Asih Lailatus S	75
8.	Moh Hawadi's Seeds	73
9.	ErnawatiDewi	75
10.	Gita Maulidah Elza P	71
11.	Hilman Ali Qodril Fu	68
12.	Muhammad Abil A	68
13.	Nadila Putri A	75
14.	Nurul Fazlurrahman A	77
15.	Rifki Zakaria	70
16.	Syukron Rizqi R	73
17.	Thoriq Alvin H	74
18.	Febrillah Amar Z	69
19.	Moh. Rifandi	70
20.	Khairani Annisa	75
21.	Adib Zaky M	66

No	Name	Score
22.	Alifiah Maburrah	78
23.	Ana Adelia Amelia S	73
24.	Aris Dwi Saputra	66
25.	Bahrul Fikri	65
26.	Emelia	75
27.	Fitri Diah A	78
28.	Ghali Jasir H	66
29.	Judge Mulyadi	56
30.	Hamdan Rizqi R	73
31.	M. Fathur Rosi	73
32.	Moh. Ardias Saputra R	74
33.	Moh. Syaifuddin HTH	73
34.	Muthi'a Nur Fadhilah A	70
35.	Nouval Azzaky P	72
36.	Rizqiyani	75
37.	Rudi Wahyudi	73
38.	Ah. Kamaludin	63
39.	Ahmad. Hilman S	68
40.	Arya Budi RF	77
41.	Chairunnisa'	71
42.	Dedi Hariyanto	58
43.	Dimas Afandi P	54
44.	Farhan Muhyi MP	61
45.	M. Muslihul Hikam	71
46.	Nurul Mutmainah	77
47.	Raden Joko Samaratunggo	67
48.	Ah Rofiki	75
49.	Sofir Ferdiansyah	65
50.	Raihana Waramulia	72
Total Score		3,601

Based on the table above, it is known that there were fifty students who took the test and the total score was 3,601. It is known that the result of the highest score is 78 and the lowest score is 54.

b. Questionnaire validity

Validity is used to measure how far the instrument, especially the questionnaire instrument, is valid or not. Because the variables or data to be studied is about video recording. So, to find out whether the questionnaire is valid or not, the researcher uses construct validity. Construct validity focuses on test scores as a measure of psychological constructs such as intelligence, motivation, anxiety, or critical thinking are hypothetical qualities or characteristics that have been constructed to explain the observed behavior.¹

The results of the questionnaire were not in the form of a numerical score, so the researcher used a Likert scale to score each item in the questionnaire. Before testing the validity of the questionnaire, the researcher will present a table of the correlation coefficient value of "r" product moment, namely:

Table 4. 2

Table of Correlation Coefficient "R" Product Moment

	Distribution of r values table
Mean	5%
N	50
r table	0.273 _

To measure the reliability of the questionnaire, researchers used SPSS 20 to facilitate researchers and reduce misinterpretations, as follows:

¹Ary et al., *Introduction to Research in Education*.

	N	50	50	50	50	50	50	50	50	50	50	50	50	50	50	50	50	50	50	50	50	50
	Pearson Correlation	.066	.288	.078	.108	-.007	.309	.366	.188	.495	-.265	-.407	-.503	.511	.211	-.161	.464	.152	.607*			
item_16	Sig. (2-tailed)	.600	.003	.548	.487	.934	.000	.000	.000	.000	.000	.000	.000	.000	.042	.265	.001	.002	.000			
	N	50	50	50	50	50	50	50	50	50	50	50	50	50	50	50	50	50	50	50	50	50
	Pearson Correlation	.594	-.297	.164	.203	-.553	.313	.052	.683	.497	-.389	.662	.090	-.386	.455	.211	.371	-.194	.073	.130		
item_17	Sig. (2-tailed)	.000	.003	.255	.155	.000	.325	.722	.000	.000	.000	.534	.006	.001	.142	.008	.176	.615	.369			
	N	50	50	50	50	50	50	50	50	50	50	50	50	50	50	50	50	50	50	50	50	50
	Pearson Correlation	.022	.069	.367	.245	.093	.199	.411	.180	.090	-.171	.341	.007	.221	-.361	.711	.158	.404	.322*			
item_18	Sig. (2-tailed)	.878	.673	.344	.084	.948	.678	.478	.210	.535	.235	.015	.961	.122	.265	.008	.001	.032	.023			
	N	50	50	50	50	50	50	50	50	50	50	50	50	50	50	50	50	50	50	50	50	50
	Pearson Correlation	.121	.041	.324	.202	.067	.311	.283	.037	.064	.071	.639	.051	.131	.464	.194	.458	.180	.057			
item_19	Sig. (2-tailed)	.936	.919	.041	.144	.845	.626	.473	.991	.661	.622	.000	.726	.363	.001	.176	.001	.210	.695			
	N	50	50	50	50	50	50	50	50	50	50	50	50	50	50	50	50	50	50	50	50	50
	Pearson Correlation	.191	.216	.257	.226	.053	.093	.076	.115	.321	.107	.331	.122	.129	.152	.073	.304	.180	.414*			
item_20	Sig. (2-tailed)	.184	.212	.071	.122	.722	.572	.712	.172	.023	.458	.332	.899	.339	.292	.1515	.332	.210	.003			
	N	50	50	50	50	50	50	50	50	50	50	50	50	50	50	50	50	50	50	50	50	50
	Pearson Correlation	.350	.588	.384	.141	.345	.458	.455	.179	.500	.671	.081	.172	.481	.607	.130	.322	.057	.414*			
skor_total	Sig. (2-tailed)	.131	.001	.001	.413	.001	.000	.000	.203	.000	.625	.208	.232	.000	.000	.369	.023	.695	.003			
	N	50	50	50	50	50	50	50	50	50	50	50	50	50	50	50	50	50	50	50	50	50

** . Correlation is significant at the 0.01 level (2-tailed).

* . Correlation is significant at the 0.05 level (2-tailed).

To find out which questionnaire items are valid or not, we have to look at the r_{table} .

In this study the number of students as many as 50 students. The researcher used a significance of 5%, and r_{table} of 0.273. Based on the data above, all questionnaire items are valid because the Pearson correlation value is higher than r_{table} .

c. Questionnaire reliability

To determine the reliability of the questionnaire, the researcher used internal consistency reliability and in calculating the quasi-questional test scores, using the alpha coefficient or also known as Cronbach's alpha. To measure whether the questionnaire is reliable or not, we must know the level of significance and r_{table} , namely:

Table 4.4

Table of Correlation Coefficient “R” Product Moment

	Distribution of r values r_{table}
Mean	5%
N	50
r_{table}	0.273 _

To measure the reliability of the questionnaire, researchers used SPSS 20 to make it easier for researchers to measure it and to reduce errors in interpretation, which are described in the following table:

Table 4.5

Video Recording Questionnaire Reliability

Case Processing Summary

		N	%
Case	Legitimate	50	100.0
	Not included	0	.0
	Total	50	100.0

Listwise deletion based on all variables in the procedure.

Table 4.6

Reliability Statistics

Alpha Cronbach	N Items
.542	20

Table 4.7
Item-Total Statistics

	Scale Means if Item is Deleted	Scale Variance if Item is Deleted	Correction of Item-Total Correlation	Alpha Cronbach if Item Removed
item_1	68.12	28,965	.123	.546
item_2	67.02	28,265	.509	.484
item_3	67.46	30,009	.223	.522
item_4	67.30	33,684	-.205	.573
item_5	66.32	30,181	.204	.525
item_6	66.50	29,724	.340	.510
item_7	66.32	28,957	.387	.499
item_8	66.60	29,918	.356	.510
item_9	66.82	31,783	.023	.550
item_10	67.14	27,347	.474	.476
item_11	67.40	26,327	.456	.469
item_12	67.40	32,816	-.106	.577
item_13	67.44	31,598	.080	.541
item_14	67.12	31,700	-.021	.567
item_15	66.38	28,853	.384	.499
item_16	66.70	27,031	.499	.471
item_17	67.46	32,417	-.113	.605
item_18	66.38	30,893	.230	.526
item_19	66.74	32,809	-.099	.572
item_20	66.50	28,990	.241	.517

Based on the data above, the Alpha is 0.542. This indicates a moderate level of reliability. This is based on a statement by Dr. Amir Hamzah, namely:

- 1) If the result alpha >0.90 then the level of reliability is perfect.
- 2) If the alpha result is between 0.70 – 0.90 then the level of reliability is high.
- 3) If the alpha result is between 0.50 – 0.70 then the level of reliability is moderate.
- 4) If the result of alpha < 0.50 then the level of reliability is low.²

Because the Alpha result is 0.542 (in the table above), it is in line with Dr. The third Amir Hamzah, namely: “If the Alpha result is between 0.50 – 0.70 then the level of reliability is moderate.

²Amir Hamzah, *Project-Based Research Methods of Quantitative, Qualitative and R&D Theoretical Studies & Examples of Its Application*, (Malang: Nusantara Literacy, 2019), P.104.

2. Documentation Results

The data obtained from the results of the documentation through the video recording of students is the students' speaking scores. The students' speaking scores through this video recording have been considered by the English subject teacher, as follows:

Table 4.8
Speaking Score Results

No	Name	Score
1.	Abu Zubriadi	82
2.	Aditya	83
3.	Ahmad Hamdan H	70
4.	Amiliya	85
5.	Amirul Wathan A	83
6.	ArrifatulShabrina	85
7.	AsihLailatus S	85
8.	BibitMohHawadi	83
9.	ErnawatiDewi	85
10.	Gita Maulidah Elza P	81
11.	Hilman Ali Qodril Fu	78
12.	Muhammad Abil A	78
13.	Nadila Putri A	85
14.	Nurul Fazlurrahman A	87
15.	Rifki Zakaria	80
16.	SyukronRizqi R	83
17.	Thoriq Alvin H	84
18.	Febrillah Amar Z	79
19.	Moh. Rifandi	80
20.	KhairaniAnnisa	85
21.	Adib Zaky M	76
22.	AlifiahMabrurah	88
23.	Ana Adelia Amelia S	83
24.	Aris DwiSaputra	81
25.	BahrulFikri	80
26.	Emelia	85

No	Name	Score
27.	Fitri Diah A	88
28.	Ghali Jasir H	81
29.	Judge Mulyadi	71
30.	Hamdan Rizqi R	88
31	M. Fathur Rosi	83
32	Moh. Ardiasaputra R	89
33	Moh. Syaifuddin HTH	88
34	Muthi'a Nur Fadhilah A	80
35	newAzzaky P	82
36	Rizqiyani	85
37	Rudi Wahyudi	88
38	Ah. Kamaludin	73
39	Ahmad. Hilman S	78
40	Arya Budi RF	87
41	Chairunnisa'	81
42	DediHariyanto	68
43	Dimas Afandi P	69
44	Farhan Muhyi MP	71
45	M. Muslihul Hikam	81
46	Nurul Mutmainah	87
47	Raden Joko Samaratunggo	77
48	Ah Rofiki	90
49	SofirFerdiansyah	75
50	Raihana Waramulia	82
Total score		4.078

The teacher gave all the students' speaking scores, and the researcher took all 50 names who had filled out the questionnaire as a research instrument. The score must be valid because it is taken from experts who have measured what they want to measure based on the content of the conversation.

3. Data Analysis

After measuring the validity and reliability of the instrument, researchers need to analyze the score into statistical form. To analyse the data, the researcher used an independent t-test which included students' scores on their speaking skills through questionnaire and video recording tests.

Before being analyzed using an independent t-test, there are two requirements, namely the normality test and the homogeneity test.

1) Normality test

Normality test is used to ensure that the data for each variable analysed is normally distributed. This is based on the assumption that parametric statistics work based on normality data to be analysed from each variable. In this case, the researcher uses Kolmogorov Smirnov's One Sample to measure the normality of the data through SPSS 20 using a significance level of 5%.

If the significance value is greater than ($>$) 0.05 then the residual value is normally distributed. On the other hand, if the significance value is less than ($<$) 0.05, then the value is not normally distributed. The calculation of the normality test can be seen in table 4.9 as follows:

Table 4.9

Normality test

Kolmogorov-Smirnov Test One Sample

		video score	speaking score
N		50	50
Normal Parameters ^{a,b}	Means	70.52	81.52
	Std. Deviation	5,643	5.456
	Absolute	.170	.130
The Most Extreme Difference	Positive	.114	.077
	Negative	-.170	-.130
Kolmogorov-Smirnov Z		1,201	.921
sour. Signature (2-tail)		.112	.364

a. Normal test distribution.

b. Calculated from the data.

Based on table 4.9 above, it is known that the significance value of one type of video is 0.112 while the significance value of speaking is 0.364. Both data have a significant value > 0.05 , so the data is normally distributed.

2) Homogeneity Test

Homogeneity test is a test to find out whether two groups of sample data from the sample come from the same population variance. The homogeneity test criteria are: if the significance value is greater than ($>$) 0.05, it means that the data is homogeneous. Meanwhile, if the significance value is less than ($<$) 0.05, it indicates that the data is not homogeneous. The results of the homogeneity test can be seen in table 10 below:

Table 4.10

Homogeneity Test Table

Variance Homogeneity Test

video score

Levene stats	df1	df2	Signature
4.780	1	48	.034

Based on the results of the homogeneity test, a significance value of 0.34 was obtained. This shows that $0.34 > 0.05$. So, it can be concluded that the two data have the same or homogeneous variance.

B. Hypothesis Testing

A hypothesis is a statement in quantitative research in which the researcher makes predictions about the outcome of the relationship between attributes or characteristics. ³This is present as the researcher's expectations about the variables in question. There are two types of hypotheses: the null hypothesis (H_0) and the alternative hypothesis (H_a).

Based on the statistical analysis requirements, it is known that the speaking scores of students who record videos on social media are normally distributed and homogeneous. Therefore, hypothesis testing can be tested using independent sample t-test. Independent sample t-test was designed to find out whether there was a significant effect on the speaking skills of students who had made video recordings on social media. The statistical hypothesis is as follows:

H_0 : There is no effect of video recording on social media on the speaking skills of students at SMA Muhammadiyah 1 Sumenep.

H_a : There is an effect of video recording on social media on the speaking skills of students at SMA Muhammadiyah 1 Sumenep.

The research hypothesis will be tested with the following criteria:

³John W. Creswell, *Educational Research Planning, Conducting, And Evaluating Quantitative And Qualitative Research Educational Research* , 4th Edition. (Boston: Pearson, 2012), p. 111

If $t_0 > t_t$, then H_0 is rejected. Meanwhile, if $t_0 < t_t$, then H_0 is accepted. The results of hypothesis testing in this study are as follows:

Table 4.11

Group Stats					
	Class	N	Means	Std. Deviation	Std. Mistakes Mean
video score	1	25	71.56	4.253	.851
	2	25	69.48	6.684	1.337

Table 4.12

Independent Sample Test										
		Levene for the Variance Equation		t-test for Equality of Means						
		F	Signature	T	Df	Signature (2-tail)	Difference Means	Std. Error Difference	95% Confidence Interval of Difference	
									Lower	On
video score	The same variance is assumed	4.780	.034	1.313	48	.196	2,080	1.585	-1.106	5.266
	Equal variance is not assumed			1.313	40,698	.197	2,080	1.585	-1.121	5,281

Table 4.12 shows the descriptive statistics of the study which show that the total score of students' video recording is 50. Table 4.12 also shows that the average for grade 1 is 71.56 while grade 2 is 69.48. So, from this result the average of class 1 is higher than class 2.

Based on the results of the independent sample t-test on Levene's test for equality of variance, a significance value of $0.34 > 0.05$ and t_0 of 1.313, df (Degree of Freedom) = 48 and sig. (2- tail) 0.196.

After $t_0=1.313$, then compared with the t value in the t -table of 2.01 at a significance level of 5%. The researcher states that the null hypothesis is accepted because t_0 is smaller than $t_t(t_0 < t_t)$ and the alternative hypothesis is rejected.

Finally, the researcher concludes that the null hypothesis is accepted. So, this study concludes that there is no significant effect on the speaking skills of eleventh grade students of SMA Muhammadiyah 1 Sumenep 2022 who have made video recordings on social media or who have not.

C. Discussion of Findings

In this study, the researcher compiles two research problems that need to be answered. The first, is there any effect of video recording on social media on the speaking skills of eleventh grade students at SMA Muhammadiyah 1 Sumenep? and the second is, how significant is the effect of video recording on social media on the speaking skills of eleventh grade students at SMA Muhammadiyah 1 Sumenep?

Based on the data exposure in the research findings above, which were analyzed using independent statistical analysis t -test, it showed that there was no significant effect of video recording on social media on the speaking skills of eleventh grade students of SMA Muhammadiyah 1 Sumenep. This is evidenced by comparing the results of t_0 with t_t . The result of t_0 is 1.313 and the value of t_{table} is 2.01. So, the result of t_0 is smaller than t_{table} ($1,313 < 2.01$). So, based on the hypothesis that I tested the null hypothesis was rejected and the alternative hypothesis was accepted.

This is not in accordance with one of the previous studies conducted by Rahmi Rahayu which stated that the use of video recording speaking task was

effective for improving students' speaking skills in eleventh grade students at SMAN 1 Tangerang Selatan City. however, there are some differences between the research conducted by Rahayu and this research. Research by Rahayu used student scores on the pre and post-test as data sources. And according to the data analysis, the output of the score calculation shows that both the experimental group and the control group have increased. Meanwhile, this study obtained a video recording score using a questionnaire instrument and a speaking score. Then the research design uses expose facto and uses quota sampling. in Rahayu's research focuses on the ability to speak like a native speaker. While this study focuses on the effect of video recordings on social media on students' speaking skills. The only thing in common is the effect of video recording on students' speaking skills.

From the findings of these two studies, we can conclude that this influence may change at one time (the effect of video recording on students' speaking).

