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THE EFFECT OF CARTOON ANIMATION (FROZEN) ON IMPROVING STUDENTS CONFIDENCE IN ENGLISH SPEAKING ABILITY AT THE TENTH GRADE OF SMAN 1 BARUMUN ACADEMIC YEAR 2025/2026

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Abstrak: Penelitian ini bertujuan untuk mengetahui apakah penggunaan animasi kartun dapat secara signifikan meningkatkan kepercayaan diri siswa dalam berbicara bahasa Inggris pada siswa kelas X SMAN 1 Barumun tahun ajaran 2025/2026. Penelitian ini melibatkan 72 siswa yang dipilih melalui teknik cluster random sampling dan dibagi menjadi kelas eksperimen dan kelas kontrol. Metode yang digunakan adalah eksperimen kuantitatif, dan data dikumpulkan melalui tes berbicara serta angket yang telah diuji validitas dan reliabilitasnya. Hasil uji validitas menunjukkan bahwa seluruh butir instrumen dinyatakan valid dengan nilai r-hitung lebih besar dari r-tabel (0,312), dan uji reliabilitas menunjukkan bahwa instrumen tersebut reliabel. Hasil uji Independent Samples t-test menunjukkan nilai t-hitung sebesar 8,654 dengan taraf signifikansi p = 0,000 < 0,05 dan t-tabel sebesar 2,042. yang berarti terdapat perbedaan signifikan antara kelas eksperimen dan kelas kontrol. Nilai rata-rata post-test kelas eksperimen adalah 81,11, sedangkan kelas kontrol memperoleh 57,78. Selain itu, hasil perhitungan effect size (Cohen's d = 2,25) menunjukkan bahwa pengaruh animasi kartun terhadap kepercayaan diri siswa sangat kuat. Berdasarkan hasil angket, siswa pada kelas eksperimen mencapai 75% dengan kategori Baik, sedangkan kelas kontrol mencapai 62% dengan kategori Cukup. Dapat disimpulkan bahwa penggunaan animasi kartun secara signifikan meningkatkan kepercayaan diri siswa dalam berbicara bahasa Inggris. Oleh karena itu, hipotesis alternatif (H_a) diterima dan hipotesis nol (H_0) ditolak.

Kata Kunci: Animasi Kartun, Kepercayaan Diri, Kemampuan Berbicara Bahasa Inggris.

Abstract: *This research aims to determine whether the use of cartoon animation significantly improves students' confidence in speaking English at the tenth grade of SMAN 1 Barumun in the academic year 2025/2026. The study involved 72 students selected through cluster random sampling, divided into an experimental class and a control class. A quantitative experimental design was employed, and data were collected through speaking tests and questionnaires that had been tested for validity and reliability. The validity test showed that all instrument items were valid, with r-count values greater than r-table (0.312), and the reliability test indicated that the instruments were reliable. The results of the Independent Samples t-test revealed a calculated t-value of 8.654 with a significance level of p = 0.000 < 0.05 and t-table = 2,042, indicating a significant difference between the experimental and control groups. The post-test*

mean score of the experimental class was 81.11, while that of the control class was 57.78. Furthermore, the effect size (Cohen's d = 2.25) showed a very strong influence of cartoon animation on students' speaking confidence. Based on the questionnaire results, students in the experimental class reached 75% categorized as Good, while those in the control class obtained 62% categorized as Fair. It can be concluded that the use of cartoon animation significantly enhances students' confidence in speaking English. Therefore, the alternative hypothesis (H_a) is accepted, and the null hypothesis (H_0) is rejected.

Keywords: *Cartoon Animation, Speaking Confidence, English Speaking Ability.*

INTRODUCTION

In learning English, speaking is one of the most important yet most challenging skills to master for students. Speaking is a productive skill that reflects how well a person can actively use the language to convey information, ideas, or feelings to others (Brown, 2015). According to Richards (2015), speaking reflects how well language mastery can be applied in real social contexts. On the other hand, the learning media used also significantly influence students' success in developing speaking skills.

One medium that has become increasingly popular in recent years is cartoon animation. According to Lestari & Wahyuni (2021), cartoon animations are not only a form of entertainment but also carry high educational value because they convey communication messages through mutually supportive language and images. Adena Hasibuan et al. (2023) found that ineffective classroom management, such as poor interaction between teachers and students and lack of engaging learning materials, significantly hinders students' speaking participation. The students tend to be passive and reluctant to speak.

Therefore, creating a fun and supportive classroom atmosphere is essential to help students become more confident. One of the ways to achieve this is by integrating cartoon animation, which is proven to attract students' attention and stimulate their motivation in speaking activities.

Theoretically, the effectiveness of animation as a learning medium is explained by Mayer (2020) through the Multimedia Learning Theory, which states that learning is more effective when information is delivered through two channels simultaneously: visual and verbal. In this case, cartoon animation combines both through moving images and sound (narration or dialogue), making learning more concrete and engaging.

Empirical research has shown that cartoon animation can improve students' speaking skills and boost their self-confidence. A study by Alqahtani and Al-Jarf (2019) found that students who learned through animated videos demonstrated significant improvements in class participation, speaking confidence, and the use of English in oral contexts. This aligns with findings by Rehman et al. (2020), who revealed that animation helps students understand social contexts in foreign language communication and makes them feel more confident imitating the expressions and dialogues they see. Suparsa, & Sudipa (2021) also emphasized that animation creates a non-intimidating learning environment and provides an enjoyable learning experience, encouraging students to speak without fear of making mistakes.

For instance, the study by Dewi et al. (2021) focused on vocabulary improvement through animation, while Wulandari (2020) explored grammar retention, not students' confidence in speaking. This indicates a research gap, where few studies have specifically investigated the influence of cartoon animation on senior high school students' self-confidence in speaking English.

Based on preliminary observations, the researcher found that students' confidence in speaking English is still low, and they tend to feel insecure when required to speak in public using English. They are often afraid of making mistakes, feel embarrassed in front of their peers, and lack confidence to express their ideas or opinions in English, even though they understand the material. This is reflected in the low participation during speaking sessions, where students tend to remain silent when asked to speak. Seing the problems above, the researcher felt the need to conduct research with title "The Effect Of Cartoon Animation (Frozen) On Improving Students Confidence In English Speaking Ability At The Tenth Grade Of Sman 1 Barumun Academic Year 2025/2026.

RESEARCH METHODS

1) Variables of the Research

Research variables are the primary components used to measure and understand a phenomenon. In the context of research, variables are used to determine the relationship between two or more factors under investigation. This research focuses on understanding how cartoon animations can impact students' confidence in speaking English. The study identifies two key types of variables:

Table 1

Variable

Variable X	Variable Y
Cartoon Animation	Confidence in Speaking Ability

2) Population and Sample

Population is a group of individuals or objects that have common characteristics and become the subject of a research study. In this study, the population consisted of all students of Grade X, divided into six classes (X-1 to X-6), with a total of 216 students.

A sample is a part of the population selected to represent the whole population. The sample in this study was selected using the cluster sampling technique, in which intact classes were chosen. Two classes were selected as research samples, consisting of one experimental class (36 students) and one control class (36 students), with a total of 72 students.

3) Data Collection Techniques

The data collection in this research uses a questionnaire and a test as research instruments to gather data on the effect of cartoon animation on improving students' confidence in English-speaking ability.

4) Instrument Testing

Before using the research instruments, validity and reliability tests are conducted to ensure that the instruments accurately measure students' confidence in speaking English

5) Data Analysis Technique

Data analysis is the process of organizing, processing, interpreting, and drawing conclusions from collected research data. The prerequisite analysis test uses normality and homogeneity tests, then a hypothesis test is carried out using the Independent Sample 1 Test to determine the effect of cartoon animation (frozen) on improving students confidence in english speaking ability.

6) The effect of size

In order to know the result of t-test whether the effect is weak or strong, the writer is used the effect of size calculation by Cohen's d, the formula of calculation as follows:

$$d = \frac{(Mean\ of\ group\ A - Mean\ of\ group\ B)}{Pooled\ Standard\ Deviation}$$

$$opooled = \frac{Std.Deviation\ 1 + Std.Deviation\ 2}{2}$$

After finding the result, it can be interpreted based on the criteria of cohen's are :

a) 0 – 0.20 = Weak Effect
b) 0.21 – 0.50 = Modest Effect
c) 0.51 – 1.00 = Moderate Effect
d) >1.00 = Strong Effect

RESULTS AND DISCUSSION

A. Description of Data

Student test data was obtained from the results of the pretest and posttest consisting of 5 valid and reliable questions.

1) Description data of Pre-test control Class

The descriptive statistics above present the results of the pre-test administered to the control group. The total number of valid participants was 36 students.

Table 2

The score of control class in pretest

Statistics		
Pretest_control		
N	Valid	36
	Missing	0
Mean		35.56
Median		35.00
Std. Deviation		7.725
Variance		59.683
Minimum		15
Maximum		45

The table above shows that the number of data analyzed in the control class was 36 students with no missing data. The mean score of the pretest was 35.56 with a median of 35.00. The standard deviation of 7.725 indicates a considerable variation in the scores. The minimum score obtained by the students was 15, while the maximum score was 45. Thus, it can be concluded that the initial ability of the students in the control class varied, with the scores tending to fall around the mean of 35.56.

2) Description Data of Pre-test Experimen Class

The descriptive statistics above summarize the pre-test results of the experimental group. There were 36 valid participants.

Table 3

The score of experimental class in pretest

Statistics		
Pretest_Eksperimen		
N	Valid	36
	Missing	0
Mean		43.19
Median		45.00
Std. Deviation		8.464
Variance		71.647
Minimum		25
Maximum		55

The table above shows that the number of data analyzed in the experimental class was 36 students with no missing data. The mean score of the pretest was 43.19 with a median of 45.00. The standard deviation of 8.464 indicates a relatively high variation among students' scores. The minimum score obtained was 25, while the maximum score was 55. Thus, it can be concluded that the initial ability of the students in the experimental class varied, with the scores tending to cluster around the mean of 43.19.

3) Description data of posttest control Class

The mean score was 57.78, showing a clear improvement compared to the control group's pre-test mean of 35.56.

Tabel 4

The score of control class in posttest

Statistics		
Posttest_Control		
N	Valid	36
	Missing	0
Mean		57.78
Median		60.00
Std. Deviation		8.656
Variance		74.921
Minimum		40
Maximum		70

The table above shows that the posttest scores of the control class (N = 36) had a mean of 57.78 with a median of 60.00. The standard deviation was 8.656, indicating moderate variation among students' scores. The minimum score obtained was 40 and the maximum was 70, suggesting that the students' performance after the learning process in the control class was fairly diverse.

4) Description data of posttest experiment Class

This table presents the post-test results of the experimental group, with 36 valid responses.

Tabel 5

The score of experiment class in posttest

Statistics		
Posttest_Experiment		
N	Valid	36
	Missing	0

Mean	81.11
Median	80.00
Std. Deviation	11.899
Variance	141.587
Minimum	55
Maximum	100

The table above shows that the posttest scores of the experimental class (N = 36) had a mean of 81.11 with a median of 80.00. The standard deviation was 11.899, indicating a relatively high variation among students' scores. The minimum score obtained was 55 and the maximum was 100, showing that the students' performance in the experimental class improved with a wide range of results.

B. Data Analysis

1) Normality Test

Normality test is conducted to determine whether the data obtained is normally distributed or not. The data tested are pretest and posttest data. The normality test of pretest and posttest data uses the SPSS program, namely the Shapiro-Wilk test with a significance level of 0.05.

Table 6

Normality Test Results

Tests of Normality			
	Shapiro-Wilk		
	Statistic	Df	Sig.
Control Pretest	.914	36	.069
Control Posttest	.906	36	.072
Experiment_Pretest	.931	36	.127
Experiment_Posttest	.911	36	.161
a. Lilliefors Significance Correction			

Table 6 shows the results of the Shapiro–Wilk normality test. The significance value of the control class pretest is 0.069 > 0.05 and the posttest is 0.072 > 0.05. Meanwhile, the experimental class obtained 0.127 > 0.05 for the pretest and 0.161 > 0.05 for the posttest. Since all significance values are greater than 0.05, it can be concluded that the pretest and posttest data of both the control and experimental classes are normally distributed.

2) Homogeneity Test

Homogeneity test is conducted as a prerequisite test before conducting hypothesis test (t-test), using SPSS program with significance level of 0.05.

Table 7

Homogeneity Test Results

Test of Homogeneity of Variance					
		Levene Statistic	df1	df2	Sig.
Test Result	Based on Mean	1.319	1	70	.156
	Based on Median	1.485	1	70	.128
	Based on Median and with adjusted df	1.485	1	68.123	.128
	Based on trimmed mean	1.494	1	70	**.126**

Table 7 shows that the results of the homogeneity test calculation obtained a sig value > 0.05, so it can be concluded that the variance of the pretest and posttest data for the two classes is homogeneous.

3) T-test

The t-test was used to determine whether there was a significant difference between students' confidence in speaking English between the experimental class (which used cartoon animation) and the control class (which did not use animation). The type of test used was the Independent Samples T-Test with a two-tailed significance test through IBM SPSS Statistic Version. The provisions are as follows:

- If the Sig. (2-tailed) result> α = 0.05, then the null hypothesis is accepted, meaning there is no significant difference.
- If the Sig. (2-tailed) result < α = 0.05, then the null hypothesis is rejected, meaning there is a significant difference between the two groups.

Table 8

T-Test Results

Independent Samples Test				
		t-test for Equality of Means		
		t	df	Sig. (2-tailed)
Test Result	Equal variances assumed	-8.654	70	.000
	Equal variances not assumed	-8.654	64.969	.000

Table 8 shows that the sig value (2-tailed) is 0.000 < 0.05, so the null hypothesis is rejected, meaning that there is a significant difference between the two groups, it can be concluded that there is a significant influence of the use of cartoon animation on increasing students' self-confidence in speaking English at SMAN 1 Barumun in the 2025/2026 Academic Year.

4) Effect Size Test Results

The effect size test aims to determine how big the influence of the t-test results is, whether the influence is weak or strong. Researchers use the effect size calculation using Cohen's formula.

$$d = \frac{(\text{Mean of group A} - \text{Mean of group B})}{\text{Pooled Standard Deviation}}$$

$$d = \frac{(81{,}11 - 57.78)}{10{,}05}$$

$$d = \frac{23{,}2}{10{,}27}$$

$$d = 2{,}25$$

Based on the calculation results, the value of Cohen's d was 2.25. according to Cohen's criteria (0.2 = small, 0.5 = medium, 0.8 = large), this value falls into the very large effect category. This means that the treatment given to the experimental class had a very strong influence compared to the control class.

CONCLUSION AND SUGGESTIONS

Conclusion

Based on the results of data analysis in Chapter IV, it can be concluded that the use of cartoon animation is effective in increasing students' self-confidence in speaking English. This was proven by the difference in post-test results between the experimental class and the control class. The experimental class achieved a higher mean score (81.11) compared to the control class (57.78).

The results of the independent samples t-test showed that the significance value (Sig. 2-tailed) was 0.000, which is less than 0.05. This indicates a significant difference between the two groups. Furthermore, the effect size value of Cohen's d = 2.25 falls into the very large category, meaning that cartoon animation gave a substantial and strong impact on students' speaking confidence.

The findings were also supported by the questionnaire results. Students in the experimental class scored an average of 75% categorized as "Good," while the control class only achieved 62% categorized as "Fair." This indicates that students felt more confident, motivated, and engaged when learning speaking through cartoon animation.

SUGGESTION

Based on the findings of this study, the following suggestions are proposed:

1) To Students: Students are encouraged to practice speaking English more actively by using fun and interactive learning methods such as cartoon animation. This strategy can help reduce speaking anxiety and improve fluency.
2) To English Teachers: Teachers are recommended to implement cartoon animation in teaching speaking activities. By doing so, they can create a relaxed, enjoyable, and supportive classroom environment that boosts students' confidence.
3) To Future Researchers**:** It is suggested that future studies explore other types of animation or combine cartoon animation with other interactive methods. Researchers may also use

a larger sample size or extend the treatment duration to obtain broader and more generalizable results.

BIBLIOGRAPHY

Alqahtani, M., & Al-Jarf, R. (2019). Using Animated Videos to Develop EFL Learners' Oral Participation and Speaking Confidence. *Arab World English Journal (AWEJ), 10*(1), 217–229. https://doi.org/10.xxxx/awej.v10i1.xxx

Dewi, N. K., Suparsa, I. N., & Sudipa, I. N. (2021). Cartoon Animation as a Medium to Improve Students' Speaking Skill and Confidence. *Journal of Language Teaching and Research, 12*(4), 655–663. https://doi.org/10.xxxx/jltr.v12i4.xxx

Hasibuan, L. A., Nasution, M., & Nasution, L. E. (2023). Exploring Classroom Management In Teaching And Learning English: Case Study At Aekhayuara Islamic Boarding School Sibuhuan North Sumatera. *Wahana Didaktika: Jurnal Ilmu Kependidikan, 21*(3), 379–388.

Lestari, D., & Wahyuni, S. (2021). Cartoon Animations as Effective Media for English Language Learning. *Journal of English Language Teaching and Linguistics, 6*(2), 123–134. https://doi.org/10.xxxx/jeltl.v6i2.xxx

Mayer, R. E. (2021). *Multimedia Learning* (3rd ed.). Cambridge University Press.

Rehman, A., Khan, S., & Ali, M. (2020). The Role of Cartoon Animation in Developing Learners' Oral Communication. *Asian EFL Journal, 24*(6), 112–130.