

## The Impact of Camtasia-Based Learning Videos on Vocabulary Mastery in Eighth-Grade MTsN 1 Padang Pariaman

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### ABSTRACT

**Purpose** – This research aims to determine the impact of Camtasia-based learning videos on vocabulary mastery among eighth-grade students at MTsN 1 Padang Pariaman.

**Design/methods/approach** – This research uses a quantitative approach with a quasi-experimental design and a Non-Equivalent Control Group Design. The population consisted of 168 eighth-grade students from MTsN 1 Padang Pariaman, with a sample of 56 students selected non-randomly. Class VIII.6 (28 students) was the experimental group, while Class VIII.5 (28 students) was the control group. Data were collected through pre-tests, post-tests, observations, and documentation. Analysis included descriptive statistics, normality testing (Shapiro-Wilk), and homogeneity testing (Levene's test). A paired-sample t-test in SPSS version 29 was used to assess the significance of vocabulary mastery differences.

**Findings** – Findings show significant improvement in the experimental group's vocabulary mastery, with pre-test scores averaging 60.178 and post-test scores increasing to 83.035. The t-test analysis revealed a calculated "t" value of 13.487, exceeding the table "t" value of 1.70329, with a Sig. (2-tailed) result of 0.00, confirming statistical significance. These results indicate a substantial positive effect of Camtasia-based learning videos on students' vocabulary mastery.

**Research implications/limitations** – The research's implications suggest the potential of such technological approaches in enhancing language education outcomes. Limitations include the focus on a single grade level and institution. Future research could explore long-term vocabulary retention and application to other language skills.

**Originality/value** – This research contributes to technology-assisted language learning by providing empirical evidence on the effectiveness of Camtasia-based videos for vocabulary mastery. It offers insights for educators and curriculum developers in language education, potentially informing local educational strategies and broader technological applications in language learning.

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## Introduction

Vocabulary mastery is a crucial aspect of Arabic language learning at the Madrasah Tsanawiyah level. Vocabulary is key to students' understanding of Arabic material. However, inadequate vocabulary mastery is a problem that hinders the progression of learning to the next level (Miavara et al., 2022). Students' ability to comprehend vocabulary significantly influences their learning outcomes in Arabic. Language cannot be separated from vocabulary, as it is a fundamental linguistic element that one must master to learn a foreign language, including Arabic (W. Muna, 2011).

The quantity and quality of vocabulary possessed by students significantly affect their language skills. Tarigan (2011) states that language proficiency heavily depends on the quantity and quality of available vocabulary (Ningtias et al., 2023). Masganti (2017) also asserts that an individual's language quality is influenced by the mastery of vocabulary they have (Agustina et al., 2023). Therefore, vocabulary mastery is a crucial foundation in Arabic language learning. To achieve optimal learning outcomes, engaging and effective teaching media are essential (Panigoro & Saputera, 2020).

The issue in vocabulary learning at Madrasah Tsanawiyah indicates that the teaching methods are still limited to lectures and textbooks. The lack of varied learning media causes students to feel bored and less motivated to study. Afroni and Lutfi (2021) explain that Arabic language learning requires strategies that encourage active student participation and involve learning media that align with students' needs (Khalilullah, 2012). One effective media for enhancing vocabulary learning is instructional videos. According to Arsyad (2013), videos provide an interactive learning experience by combining visual and audio elements. Learning videos require supporting software, such as Camtasia. This application offers a comprehensive set of features to create, edit, and produce high-quality, interactive, creative, and contextual videos (Suryadi et al., 2021). With Camtasia, teachers can present vocabulary through authentic dialogues and everyday situations, enabling students to not only understand the words but also apply them in communicative contexts (Wirasasmita & Putra, 2017).

The study by Albantani and Madkur (2019), titled "Musyāhadat Al Fidyū: YouTube-Based Teaching and Learning of Arabic as a Foreign Language (AFL)," is highly relevant to this research. This study examines the effectiveness of using YouTube videos in teaching Arabic as a foreign language, offering insights into the potential of video media to enhance language skills, including vocabulary mastery. While focusing on the YouTube platform, it shares a common theme with the current study in using video as a teaching tool. However, this research extends the scope by specifically examining the impact of Camtasia-based learning videos on vocabulary mastery in the classroom (Albantani & Madkur, 2017).

The study by Baharuddin et al. (2018), titled "Learning Strategies of Arabic Language Vocabulary for Pre-University Students," is relevant to this research. Although it does not specifically address the use of video, the study explores various vocabulary learning strategies for Arabic, including the use of audiovisual media. This research highlights the importance of selecting appropriate strategies for vocabulary learning. Its relevance lies in the shared focus on enhancing Arabic vocabulary mastery, which aligns with the goal of utilizing Camtasia-based videos in the current study (Baharudin & Ismail, 2015).

A relevant study to this research is that of Albantani & Rahmadi (2020), titled "Mobile Devices for Arabic Learning in Junior High Schools: The Teachers' Perspective," which explores the use of mobile devices in Arabic language learning. While the focus of the two studies differs, both investigate the application of technology to enhance the effectiveness

of Arabic instruction at the secondary school level. Albantani & Rahmadi's study emphasizes teachers' perspectives on technology broadly, whereas the present research specifically examines the use of Camtasia-based learning videos to improve vocabulary mastery. This study's unique contribution lies in its focus on interactive video media created with Camtasia and its implementation within the formal classroom setting. Together, these studies provide complementary insights, offering a more comprehensive understanding of the role of technology in Arabic language education, from a general viewpoint to more targeted applications (Albantani & Rahmadi, 2020).

The study by Toifah (2021), titled "Camtasia Studio: Multimedia Software in Arabic Listening Instruction in the Era of Industry 4.0," explores the use of Camtasia to enhance listening skills (*istima'*) within the context of Industry 4.0. In contrast, this research focuses on the effectiveness of Camtasia-based videos in improving students' vocabulary mastery (*mufradat*) in the classroom. Although the language skills targeted by the two studies differ, both highlight Camtasia's potential as a multimedia tool to modernize and enhance the effectiveness of Arabic language learning. Collectively, these studies emphasize how technology can be integrated into various aspects of Arabic language instruction, from listening comprehension to vocabulary mastery, reflecting the growing trends in digital language education (Toifah, 2021).

Meanwhile, the study by Dariyadi (2020) and the research on "The Impact of Camtasia-Based Learning Videos on Vocabulary Mastery in the Classroom" differ in focus but complement each other within the context of technology-based Arabic language learning. Dariyadi's research focuses on the technical aspects of creating learning videos using Camtasia Studio 2020, providing practical guidance for educators. In contrast, this study analyzes the impact of these videos on students' vocabulary mastery, evaluating the effectiveness of this method in enhancing language skills. Despite the different approaches, both studies are highly relevant: Dariyadi's research lays the foundation for creating educational content, while this study tests the effectiveness of that content in a real classroom setting. Together, they provide a comprehensive understanding of Camtasia's potential in modernizing Arabic language instruction, from content creation to evaluating its impact on student learning (Latifah, 2021).

Based on the identified issues, this study aims to examine the impact of Camtasia-based learning videos on vocabulary mastery in the eighth grade at MTsN 1 Padang Pariaman. The researcher seeks to determine how Camtasia-based learning videos affect students' vocabulary mastery and whether this method is more effective than traditional lecture-based methods.

## Methods

This study employs a quantitative experimental approach with a Quasi-Experimental design and a Non-Equivalent Control Group Design model (Rachmat & Krisnadi, n.d., 2017). It involves two groups: the experimental group, which uses Camtasia-based learning videos, and the control group, which follows traditional lecture methods. The sample consists of two classes, VIII.5 (control) and VIII.6 (experimental), selected through a non-probability sampling technique. The research spans one semester, with six 90-minute sessions. Both groups undergo pre-tests and post-tests to assess the changes in vocabulary mastery before and after the intervention.

Data are collected through tests, observations, and documentation. Tests measure student learning outcomes, while observations evaluate the performance of both teachers and students during the lessons. Documentation serves to complement the data. Data analysis includes normality and homogeneity tests, followed by a paired sample t-test to compare pre-test and post-test scores. All analyses are conducted using SPSS 29 (W. N. Putri, 2017) to determine whether Camtasia-based learning videos significantly impact students' vocabulary mastery.

## Result

### 1.2 Camtasia-Based Learning on Vocabulary Mastery in the Eighth Grade at MTsN 1 Padang Pariaman

The research on Camtasia-based learning for Arabic vocabulary mastery has been conducted at MTsN 1 Padang Pariaman. To ensure research effectiveness, the researcher has designed and implemented a series of systematic learning procedures. The implementation of this research was based on preliminary observations indicating the need for innovation in Arabic vocabulary learning to enhance student engagement and comprehension.

Students, as the primary participants, take on the role of listeners in Camtasia-based learning videos. They listen attentively and respond to the teacher's instructions, both individually and in groups. This type of learning assumes that effective learning occurs when students actively engage and comprehend what they hear during their use of this media.

Thus, before presenting the results of the impact of Camtasia-based learning videos on vocabulary mastery in the eighth grade at MTsN 1 Padang Pariaman, the researcher designed teaching steps involving the use of Camtasia-based learning videos, which include the following:

#### 1.1. Preliminary Activities:

- 1.1.1. The teacher greets the students, and the students respond to the greeting.
- 1.1.2. The teacher invites the class leader to lead the prayer, and the class prays together.
- 1.1.3. The teacher adjusts the teaching environment to introduce interesting topics.
- 1.1.4. The teacher checks student attendance on the attendance sheet.
- 1.1.5. The teacher assesses the students' mastery of previously learned material.
- 1.1.6. The teacher explains the competencies and objectives to be achieved.
- 1.1.7. The teacher outlines the plan for delivering the material and activities.
- 1.1.8. The teacher explains the type of evaluation and assessment techniques to be used.

#### 1.2. Main Activities:

##### 1.2.1. Observation

- 1.2.1.1. The students are asked to watch the video presented by the teacher.
- 1.2.1.2. The students pay attention to the vocabulary (mufradat) images shown in the video.

### 1.2.2. Questions

- 1.2.2.1. The teacher provides an opportunity for students to ask questions about the vocabulary (mufradat) introduced.
- 1.2.2.2. The teacher then allows students to ask questions about the pronunciation of the vocabulary (mufradat) introduced.

### 1.2.3. Experiment

- 1.2.3.1. Students repeat the vocabulary (mufradat) read aloud by the teacher.
- 1.2.3.2. Students form simple sentences in Arabic based on the images displayed.

### 1.2.4. Connection

The teacher gives students the opportunity to participate in an activity, such as a game, involving a series of messages related to the vocabulary (mufradat) presented.

### 1.2.5. Skills

- 1.2.5.1. The teacher asks a group representative to present their answers in front of the class.
- 1.2.5.2. The teacher provides constructive feedback on the answers given by other students to ensure that conclusions are drawn honestly and politely.
- 1.2.5.3. Other groups repeat the correct answers after being corrected by the teacher.

## 1.3. Final Activity

- 1.3.1. The teacher and students summarize the material and the learning presented.
- 1.3.2. The teacher and students identify the strengths and weaknesses of the learning activities.
- 1.3.3. The teacher conducts an evaluation.
- 1.3.4. The teacher provides additional learning activities for students who missed any part of the lesson.
- 1.3.5. The teacher helps students broaden their understanding of the material presented and learned.
- 1.3.6. The teacher provides information about the topic to be discussed in the next session.
- 1.3.7. The teacher closes the lesson by leading a prayer with the students and offering a closing greeting.

The researcher conducted the study in two classes, VIII.5 and VIII.6. The experimental class, VIII.6, consisted of 28 students, while the control class, VIII.5, also comprised 28 students. The material used in the study was **عيادة المرض** (Visiting the Sick). Based on observations by the Arabic language teacher, the learning process utilizing Camtasia-based instructional videos was conducted effectively and proceeded smoothly.

## 2. The Effect of Using Camtasia-Based Instructional Videos on Vocabulary Mastery in Eighth-Grade Students of MTsN 1 Padang Pariaman

Before utilizing Camtasia-based instructional videos in the experimental class, the researcher conducted a pre-test in both the control class and the experimental class. The material covered in the pre-test was *عيادة المرض* (Visiting the Sick). The pre-test scores from both classes are as follows:

**Table 1**

*Pre-test score of control class*

No	Name of Students	Scores
1	Avandi Sidik Maulana	55
2	Adriani Jehan Aprisa	40
3	Aisyah Rahma Aini	35
4	Anjelly Hatasya	70
5	Asyifa Noura Ramadhani	80
6	Bunga Sonya Dwi Putri	50
7	Grecia julian Herly	60
8	Ismi Azizah	85
9	M Alfi Anggara	55
10	Muhammad Luthfi	60
11	Meysi Yulandari	85
12	M Fakhri Pratama	65
13	Muhammad Farel	65
14	Naurah Afiqah	65
15	Nayla Putri	55
16	Oktavia Yolanda	65
17	Regina Deltia Pratama	75
18	Rakha Arianto	60
19	Revalia	65
20	Rizki Novebriansyah	40
21	Reski Aditya	70
22	Reysa Afcyla Putri	55
23	Rini Febrianti	70
24	Salma Septi Ramadhani	70
25	Satyra Riadi Pratama	50
26	Shinta Zulfitri Rahmanda	65
27	Vahri Syaputra	50
28	Yoka Nauriza Febrianti	75
<b>Amount</b>		1735
<b>Average</b>		61,96

After conducting the pre-test in the control class on Monday, May 29, 2023, the researcher obtained data based on Table 1 showing that out of 28 students, 3 achieved the minimum passing score of 80, while 25 students did not. The highest score was 85, the lowest score was 40, and the average score was 61.96. These results indicate that students' vocabulary learning proficiency remains inadequate.

**Tabel 2**

*Pre-test score of exsperiment class*

<b>No</b>	<b>Name of Students</b>	<b>Scores</b>
1	Abdan Fauzen Amda	75
2	Abiyu Alkautsar	80
3	Carla Olivia	75
4	Jihan Adriza Ariqah	70
5	Lathifa Sri Wahyuni	75
6	M Bayu Pratama	40
7	M Boriq Alfauzan	50
8	M Khairini Al Qadri	65
9	Meyzi Luthfiani Efendil	60
10	Nanda Azwana Putri	65
11	Nayla Dira Saputri	75
12	Nazili Milova	75
13	Nia Suci Ramadani	55
14	Putri Aisyiah	65
15	Raditya Mahendra	70
16	Rara Juniati	60
17	Sahilatur Rahma	40
18	Salma Putri Rahmayani	40
19	Saskya Khairattul Rahma Yasril	50
20	Satria Khoiry Herlambang	40
21	Sherina Frisca	60
22	Superita Rahmi Riri	55
23	Syafiq Al Khalis Irza	45
24	Tsabita Ilma Kamiladina	50
25	Ulya Azizah	85
26	Valdes Julianda Putra	50
27	Wardah Jamilah Assyfa	60
28	Qhumaira Huljannah	55
<b>Amount</b>		1485
<b>Average</b>		60,17

After conducting the pre-test in the experimental class on Monday, May 29, 2023, the researcher found, based on Table 2, that out of 28 students, 2 students achieved the minimum passing score of 80, while 26 students did not. The highest score was 85, the lowest score was 35, and the average score was 60.17. These results indicate that students' vocabulary learning proficiency remains inadequate.

Based on the pre-test results, the researcher conducted an experiment on both groups over one semester, consisting of six sessions with a duration of 90 minutes per session. After completing the experimental process, a post-test was administered. The post-test scores for both classes are as follows:

**Table 3**

*Post-test scores of the control class using the lecture method*

No	Name of Students	Scores
1	Avandi Sidik Maulana	80
2	Adriani Jehan Aprisa	75
3	Aisyah Rahma Aini	70
4	Anjelly Hatasya	75
5	Asyifa Noura Ramadhani	90
6	Bunga Sonya Dwi Putri	80
7	Grecia julian Herly	70
8	Ismi Azizah	95
9	M Alfi Anggara	65
10	Muhammad Luthfi	65
11	Meysi Yulandari	95
12	M Fakhri Pratama	80
13	Muhammad Farel	70
14	Naurah Afiqah	75
15	Nayla Putri	60
16	Oktavia Yolanda	70
17	Regina Deltia Pratama	80
18	Rakha Arianto	65
19	Revalia	65
20	Rizki Novebriansyah	50
21	Reski Aditya	75
22	Reysa Afcyla Putri	80
23	Rini Febrianti	80
24	Salma Septi Ramadhani	75
25	Satyra Riadi Pratama	55
26	Shinta Zulfitri Rahmanda	65
27	Vahri Syaputra	60
28	Yoka Nauriza Febrianti	70
<b>Amount</b>		2035
<b>Average</b>		72,67

After conducting the post-test in the control class on Saturday, June 3, 2023, the researcher found, based on Tabel 3, that out of 28 students, 9 students achieved the minimum passing score of 80, while 19 students did not. The highest score was 95, the lowest score was 50, and the average score was 67.8. These results suggest that students' vocabulary learning proficiency has not been successfully improved.

**Table 4**

*Post-test scores of experimental classes using Camtasia-based learning videos*

No	Name of Students	Scores
1	Abdan Fauzen Amda	85
2	Abiyu Alkautsar	90
3	Carla Olivia	90
4	Jihan Adriza Ariqah	95
5	Lathifa Sri Wahyuni	85
6	M Bayu Pratama	65



No	Name of Students	Scores
7	M Boriq Alfauzan	80
8	M Khairini Al Qadri	95
9	Meyzi Luthfiani Efendil	70
10	Nanda Azwana Putri	95
11	Nayla Dira Saputri	85
12	Nazili Milova	95
13	Nia Suci Ramadani	80
14	Putri Aisyiah	85
15	Raditya Mahendra	90
16	Rara Juniati	80
17	Sahilatur Rahma	80
18	Salma Putri Rahmayani	75
19	Saskya Khairattul Rahma Yasril	80
20	Satria Khoiry Herlambang	65
21	Sherina Frisca	90
22	Superita Rahmi Riri	70
23	Syafiq Al Khalis Irza	80
24	Tsabita Ilma Kamiladina	85
25	Ulya Azizah	95
26	Valdes Julianda Putra	75
27	Wardah Jamilah Assyfa	85
28	Qhumaira Huljannah	80
<b>Amount</b>		2325
<b>Average</b>		83,03

After conducting the post-test in the experimental class on Saturday, June 3, 2023, the researcher found, based on Table 4, that out of 28 students, 23 students achieved the minimum passing score of 80, while 5 students did not. The highest score was 95, the lowest score was 50, and the average score was 83.1. These results indicate that the students' vocabulary learning proficiency has been successfully improved.

### 2.1. Statistical Data Test Results

After processing the data from both classes, descriptive statistical data was obtained. The descriptive statistics were analyzed using SPSS 29, producing data on maximum and minimum scores, mean, standard deviation, and variance. The data was processed and compiled for both classes using SPSS 29. In the experimental class, Camtasia-based instructional videos were utilized, while the control class employed the lecture method. To evaluate learning outcomes in both classes, a post-test was administered following the application of the respective teaching methods. The objective was to compare and identify the differences in learning outcomes between the two classes. Below are the results of the descriptive statistical analysis of the pre-test and post-test data for students in the experimental and control classes:

**Table 5**

*Results of the Pre-test and Post-test Statistical Test*

		<b>Pre-test experiment class</b>	<b>Post-test experiment class</b>	<b>Pre-test control class</b>	<b>Post-test control class</b>
<b>N</b>	<b>Valid</b>	28	28	28	28
	<b>Missing</b>	0	0	0	0
<b>Mean</b>		60.178	83.035	61.964	72.678
<b>Median</b>		65.0	72.5	60.17	85
<b>Mode</b>		65	80	75	80
<b>Std. Deviation</b>		12.717	10.756	13.227	8.854
<b>Variance</b>		161,739	115,707	174,966	78,406
<b>Minimum</b>		35	50	40	65
<b>Maximum</b>		85	95	85	95
<b>Sum</b>		1735	2035	1685	2325

Based on Table 5, it can be concluded that the pre-test results conducted before using Camtasia-based instructional videos in the experimental class showed a highest score of 85 and a lowest score of 35. The mean score was 60.178, the median was 65.0, and the mode was 65. The post-test results for the experimental class, conducted after using Camtasia-based instructional videos, revealed a highest score of 95 and a lowest score of 50. The mean score was 83.035, the median was 72.5, and the mode was 80.

For the control class, the pre-test results showed a highest score of 85 and a lowest score of 40. The mean score was 61.964, the median was 60.17, and the mode was 75. The post-test results for the control class showed a highest score of 95 and a lowest score of 60. The mean score was 72.678, the median was 85, and the mode was 80.

**2.2. Data Normality Test**

The normality test is used to determine whether the data follows a normal distribution. Data that is normally distributed is considered valid and suitable for use in this study. The normality test was conducted using the Shapiro-Wilk test, as the sample size is fewer than 50 respondents. The following are the decision criteria for the normality test:

1. If the Sig. (significance) or probability value is greater than 0.05, then the data is normally distributed.
2. If the Sig. (significance) or probability value is less than 0.05, then the data is not normally distributed.

**Table 6**

*Results of Normality Test*

<b>Class</b>	<b>Shapiro-Wilka</b>			<b>Decision</b>
	<b>Statistic</b>	<b>df</b>	<b>Sig.</b>	
<b>Pre-test Experiment</b>	.948	28	.179	Normal
<b>Pre-test Control</b>	.971	28	.595	Normal
<b>Post-test Experiment</b>	.929	28	.057	Normal
<b>Post-test Control</b>	.962	28	.389	Normal

As shown in Table 6. the researcher used one of the normality tests, namely the Shapiro-Wilk test. It can be observed that all the data in this study have significance values greater than 0.05 in the normality test. Therefore, it can be concluded that all the data follow a normal distribution, and thus the normality assumption can be accepted.

### 2.3. Homogeneity Test

The homogeneity test is conducted to determine whether the data exhibits identical variation (homogeneity). This homogeneity test was performed on the pre-test and post-test scores of students in both the experimental and control classes using SPSS version 29. The decision rule for the homogeneity test is based on a significance level of 0.05. If the significance value (Sig.) is greater than 0.05, the null hypothesis (H0) is accepted, and if the significance value (Sig.) is less than 0.05, the alternative hypothesis (Ha) is accepted.

Explanation:

H0: The data is homogeneous.

Ha: The data is not homogeneous.

This homogeneity test uses Levene’s statistic. The results of the homogeneity test for the pre-test and post-test data are as follows:

**Table 7**

#### *Homogeneity Test Results*

	<b>Levene Statistic</b>	<b>df1</b>	<b>df2</b>	<b>Sig.</b>
<b>Pre-test</b>	.200	1	54	.657
<b>Post-test</b>	.676	1	54	.415

Referring to Table 7, it can be concluded that both the pre-test and post-test data have significance values greater than 0.05. This means that H0 is accepted. It is evident that the significance values are greater, indicating that the variance in the pre-test scores of the experimental and control classes is homogeneous. Therefore, it can be concluded that the data is homogeneous.

### 2.4. Paired Sample t-Test

The Paired Sample t-Test, also known as the two-sample paired test, is used to compare two samples—namely the experimental class and the control class—that receive different treatments. This paired sample t-test is applied to determine whether there is a significant difference between the pre-test and post-test results in the experimental class and the pre-test and post-test results in the control class. To address the research hypothesis, the following conclusions can be drawn:

H0: There is no significant effect of Camtasia-based instructional videos on vocabulary mastery in eighth grade students of MTsN 1 Padang Pariaman.

Ha: There is a significant effect of Camtasia-based instructional videos on vocabulary mastery in eighth grade students of MTsN 1 Padang Pariaman.

The decision rule for the paired sample t-test is as follows:

1. If the sig. (2-tailed) value is greater than 0.05, then H0 is accepted or Ha is rejected (indicating no significant performance difference).
2. If the sig. (2-tailed) value is less than 0.05, then H0 is rejected or Ha is accepted (indicating a significant performance difference).

**Table 8**

*Hypothesis Test Results*

Pair	Pre-Test	Paired Differences				t	df	Sig. (2-tailed)	
		Mean	Std. Deviation	Std. Error Mean	95% Confidence Interval of the Difference				
					Lower				Upper
1	Experiment Post-Test Experiment	-22,857	8,96790	1,69477	-26,33453	-19,37975	-13,487	27	,000

From the Table 8. above, it can be concluded that the calculated t value is 13.487, while the t value from the table is 1.70329. The calculated t value of 13.487 is higher than the t value from the table, 1.70329. The result from the **Sig. (2-tailed)** value is 0.00, which is smaller than 0.05. Based on the decision rule above, it can be concluded that **H0** is rejected and **Ha** is accepted. The researcher found a significant difference between the pre-test and post-test results, and the data indicate a difference before and after the use of Camtasia-based instructional videos. Therefore, it can be interpreted that there is a significant effect on vocabulary mastery learning by using Camtasia-based instructional videos.

From the presentation of the data, it is evident that Camtasia-based instructional videos have a significant effect on improving Arabic vocabulary mastery among eighth-grade students of MTsN 1 Padang Pariaman. Based on the pre-test conducted in Cycle I, the average score obtained was 60.178%. After the treatment using Camtasia-based instructional videos, the average score of students in the post-test of Cycle II increased to 83.035%, indicating a 22% improvement in the average score compared to the previous result.

**Discussion**

1. **Camtasia-Based Learning on Vocabulary Mastery in the Eighth Grade at MTsN 1 Padang Pariaman**

Based on the research results of implementing Camtasia-based learning for Arabic vocabulary mastery at MTsN 1 Padang Pariaman, several important findings warrant discussion. The study demonstrates the successful integration of multimedia technology in language learning, specifically in vocabulary acquisition.

The implementation of Camtasia-based learning media aligns with current educational technology trends, as highlighted by Aryani et al. (2022), who emphasize that video-based learning media effectively combines images and audio within instructional videos. This integration enhances students' learning enjoyment through the Camtasia application, which, as noted by Dariyadi (2016), is a versatile software

developed by TechSmith Corporation that enables the creation of multimedia-based teaching materials and e-learning content through screencasts.

The effectiveness of Camtasia-based learning observed in this study corroborates the findings of Siti Faradilla (2022), who found that Camtasia-based video teaching media is both effective and enjoyable for teaching Arabic vocabulary. Our research extends these findings by demonstrating successful implementation in a structured classroom setting with systematic teaching steps, from preliminary activities through to final evaluations. The success of this implementation suggests several important implications:

### 1.1. Ransferability to Other Subjects

While this study focused on Arabic vocabulary, the structured approach using Camtasia-based learning could be effectively adapted for other language subjects or even non-language courses that require visual and audio elements for better understanding.

### 1.2. Enhancement of Student Engagement

The observational data showing smooth and effective implementation suggests that Camtasia-based learning successfully addresses the common challenge of maintaining student engagement in language learning. This is particularly significant for vocabulary acquisition, which traditionally can be repetitive and monotonous.

### 1.3. Pedagogical Innovation

The systematic teaching steps developed in this study provide a practical framework that other educators can adapt and implement in their own classrooms, particularly in contexts where technology-enhanced learning is becoming increasingly important. For future research directions, several recommendations emerge from this study:

### 1.4. Ongitudinal Studies

Future research could examine the long-term retention of vocabulary learned through Camtasia-based instruction compared to traditional methods.

### 1.5. Ross-Cultural Applications

The effectiveness of this approach could be tested in different cultural and educational contexts to establish its broader applicability.

### 1.6. Interactive Elements

Future implementations could explore incorporating more interactive elements within the Camtasia-based videos to further enhance student engagement.

### 1.7. Assessment Integration

Research could focus on developing and validating assessment tools specifically designed for Camtasia-based vocabulary learning.

This research contributes to the growing body of evidence supporting the integration of multimedia technology in language education. The successful implementation at MTsN 1 Padang Pariaman provides a practical model that can be adapted and refined for various educational contexts, particularly in environments where engaging and effective vocabulary instruction is crucial for language learning success.

## 2. The Effect of Using Camtasia-Based Instructional Videos on Vocabulary Mastery in Eighth-Grade Students of MTsN 1 Padang Pariaman

The research demonstrates the significant impact of Camtasia-based instructional videos on improving Arabic vocabulary mastery among eighth-grade students at MTsN 1 Padang Pariaman. The experimental group showed a notable performance increase, with pre-test scores of 60.18% rising to 83.04% in the post-test, reflecting a 22.86% improvement. This aligns with Mayer's Cognitive Theory of Multimedia Learning (2019), which highlights the effectiveness of presenting information through both visual and auditory channels. The findings are also supported by (Khan et al., 2023), who found that multimedia use in vocabulary learning increases retention by up to 20% compared to traditional methods.

Camtasia-based videos also enhance student engagement, supporting (Dewi Hidayati et al., 2023), who found that interactive video media significantly increases student engagement in language learning. The visual and interactive nature of Camtasia videos appears to maintain student attention and motivation, leading to better learning outcomes. Additionally, this study highlights the comparative advantage of multimedia-based instruction over traditional methods, as shown by the control group, which received traditional lecture-based instruction. The control group only saw more modest improvements, from 61.96% to 72.68%, showing a difference of 10.36% in improvement rates compared to the experimental group, further emphasizing the benefits of multimedia-based instruction.

This methodology has broader applications in various educational contexts. First, it can be applied to teaching vocabulary in other languages, as demonstrated by (Liu, 2023) in their research on English vocabulary instruction using instructional videos. Second, this approach can be adapted for both younger and older learners, as suggested by (Wang et al., 2024) wang et al. (2022), whose meta-analysis of multimedia learning showed its applicability across different age groups. Third, Camtasia-based instructional videos can be an effective solution in distance learning, as predicted by research from (Stephanie D. Smith et al., 2024), which found that video media enhances student interaction in virtual classrooms.

Despite the positive results, there are areas for future research. Long-term retention should be assessed through delayed post-tests to evaluate the lasting impact of Camtasia-based videos. Further studies are needed to explore the effectiveness of this approach in different cultural contexts and with various language pairs. Additionally, investigating how different learning styles interact with video-based instruction could help tailor more personalized learning approaches. Lastly, the development of interactive features within instructional videos warrants further exploration to enhance the dynamic nature of video-based learning.

The findings suggest several practical pedagogical implications. Educators should prioritize integrating multimedia tools, particularly for vocabulary teaching, into language instruction. Professional development programs should include training in

educational technology tools like Camtasia to help teachers effectively use these resources. Educational institutions should consider investing in multimedia resources to support technology-enhanced language learning.

## Conclusion

Based on the research conducted on eighth-grade students at MTsN 1 Padang Pariaman, it can be concluded that the use of Camtasia-based instructional videos has a significant impact on improving vocabulary mastery. The average vocabulary mastery score before the treatment using Camtasia-based instructional videos was 60.178. After the application of Camtasia-based instructional videos, the average score increased to 83.035, indicating a 22% improvement in the average score. Therefore, there was a significant increase in the pre-test and post-test results with the application of Camtasia-based instructional videos, making this method suitable for enhancing vocabulary mastery among eighth-grade students.

## Declarations

### Author contribution statement

All authors made significant contributions to this research. Yulva Maya Padilah was responsible for conceptualizing the study, designing the methodology, and analyzing the results. Amin Harahap conducted data collection, supervised the experimental design, and drafted parts of the methodology section. Haerani Kadar contributed to the literature review, data interpretation, and the preparation of the discussion and conclusions. Raudhatunnur managed project administration, analyzed the data, and reviewed the manuscript to ensure its intellectual quality. All authors approved the final manuscript and take full responsibility for the integrity and accuracy of this research.

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### Data availability statement

The data used and generated in this study include the pre-test and post-test scores of students from the experimental and control groups, observation records during the learning process, and visual documentation of learning activities using Camtasia-based videos in the experimental class and lecture methods in the control class. These data are not publicly available due to institutional privacy policies and to protect the confidentiality of the research participants. However, the data can be accessed upon formal request to the corresponding author, provided that a clear justification and intended use of the data are stated. For further information or to request access, please contact the corresponding author via email at 23204022029@student.uin-suka.ac.id.

### Declaration of interests statement

The authors declare no financial, personal, or professional conflicts of interest that could have influenced the outcomes or interpretations of this research.

### Additional information

This study highlights the significant impact of Camtasia-based learning videos on vocabulary mastery, offering insights for broader applications in language education. The authors welcome inquiries and discussions regarding the methodology and findings to support further advancements

in educational technology and pedagogy. Additional materials, including extended data and supplementary analyses, are available upon request to the corresponding author.

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