



The Contextual Teaching and Learning Model (CTL) Assisted by Animated Video Media on Indonesian Language Learning Motivation of Fifth Grade Students of SD IT Ar-Rahman, South Lampung

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Abstract:

Low learning motivation in Indonesian language learning in elementary schools can limit students' attention, involvement, and persistence during the learning process. This study aims to analyze the effect of the *Contextual Teaching and Learning* (CTL) approach assisted by animated video media on the motivation to learn Indonesian language of fifth-grade students at SD IT Ar-Rahman, South Lampung. This study uses a quantitative approach with a quasi-experimental method and a *nonequivalent control group design*. The research sample consisted of 46 students divided into an experimental group (23 students) and a control group (23 students). The experimental group received CTL learning assisted by animated video, while the control group received *Direct Instruction* learning assisted by PowerPoint. Data were collected using a learning motivation questionnaire and analyzed through descriptive statistics, the Shapiro-Wilk test, the Levene test, *paired-samples t-test*, and inter-group differences using the *Independent Samples t-Test* and the nonparametric Mann-Whitney U test as a confirmatory analysis. The results showed that the average motivation score of the experimental group increased from 80.7391 in the pretest to 91.1304 in the posttest, while the control group increased from 76.7826 to 87.8261. The posttest average of the experimental group was 3.3043 points higher than the control group. The results of the *Independent Samples t-Test* showed a significant difference between groups ($p < 0.001$), which was confirmed through the Mann-Whitney U test ($U = 159.000$; $p = 0.001$). These findings indicate that the integration of CTL with animated videos has the potential to support learning motivation through contextual, visual, interactive, and participatory learning experiences. This study concludes that CTL assisted by animated videos can be a pedagogical alternative in Indonesian language learning. The implication is that teachers need to integrate audiovisual media in a targeted manner into contextual learning activities, not just using it as a stand-alone presentation medium.

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Introduction (مقدمة)

Learning Indonesian at the elementary education level still faces serious problems because the literacy foundation of Indonesian students has not reached the expected level. (Anwas et al., 2022; Azzahra et al., 2024; Rahmawati & Muthi, 2025) This condition is important to note because the ability to understand, interpret, and use written information is a fundamental part of language competence that develops cumulatively since elementary education (Silverman et al., 2020; Muzaki & Dawud, 2024). Data from the Programme for International Student Assessment (PISA) 2022 shows that only 25% of Indonesian students aged 15 years reached Level 2 or higher in reading, far below the OECD average of 74%. In fact, almost no Indonesian students reached Level 5 or higher. In a national context closer to elementary education, the 2025 Education Report Card shows that only 65.66% of elementary school students achieved minimum literacy competencies, and this achievement is still in the moderate category. Arithmetically, this means that approximately 34.34% of elementary school students have not achieved minimum competencies. While this data does not directly measure learning motivation, it does demonstrate that the quality of literacy learning still needs strengthening (Susetyawati et al., 2025; Fitriani et al., 2026). Therefore, improving Indonesian language learning is not enough to be directed only at mastering the material, but also needs to touch on process factors that can make students interested, active, diligent, and have the motivation to be involved in learning activities (Yusnan et al., 2025a, 2025b; Dalimunthe et al., 2026).

In this context, learning motivation is one aspect of the learning process that cannot be ignored, because successful learning requires encouragement that maintains student engagement while interacting with the material, teacher, and learning environment (Bedi, 2023; Lee & Song, 2022; Lei et al., 2024). In this research manuscript, learning motivation refers to Hamzah B. Uno's indicators which include the desire and desire to succeed, the drive and need to learn, hopes and ideals, appreciation in learning, interesting learning activities, and a conducive learning environment (Huang & Wang, 2023). The problem is, learning that does not connect the material with students' experiences and is not supported by interesting media presentation has the potential to make learning activities lose their relevance and appeal (Juntunen et al., 2022; Rajan et al., 2024). Recent research findings also show that video-based media and especially animated videos have the potential to increase the engagement and learning motivation of elementary school students when used according to learning needs (Hita et al., 2024; Yani et al., 2025; Inwanti & Setiawan, 2025). The Contextual Teaching and Learning (CTL) model is relevant to answer these problems because it places material in relation to real-life situations through the active involvement of students, such as asking questions, discovering, working in learning communities, modeling, reflection, and authentic assessment (Astuti & Najuba, 2024; Nurhanipah et al., 2025; Safira et al., 2026). Recent research on CTL in Indonesian language learning in elementary schools also shows that this model is relevant for building more meaningful learning by connecting material to the context of students' lives (Putri et al., 2025). At the same time, animated videos can present information through a combination of moving images, text, sound, and audiovisual elements so that the material can be presented more concretely and interestingly. Thus, the integration of CTL and animated videos has a logical pedagogical basis for creating contextual Indonesian language learning while maintaining students' attention and engagement (Yana & Sudarma, 2023; Sina et al., 2024).

This problem found a more concrete form in fifth-grade students at SD IT Ar-Rahman, South Lampung. The results of the pre-research in the manuscript indicate that of the 84 fifth-grade students, 49 students or 58% were in the low learning motivation category, while only 15

students or 18% were in the high category and 20 students or 24% were in the medium category. In fact, the low motivation category in the VC class reached 67%, while VA and VD each had 57% and VB 52%. This quantitative condition was reinforced by the results of initial interviews with teachers, which showed that some students paid less attention to learning, were reluctant to study or repeat material at school and at home, and had not received maximum support from learning media; teachers also identified low internal motivation and lack of learning support from parents as factors accompanying these problems. Initial observations in the manuscript also showed a lack of enthusiasm, low initiative in doing assignments, and high dependence of students on teacher direction. Thus, the low motivation to learn Indonesian at the research location is not just an assumption, but an empirical problem that requires learning interventions that can strengthen the relevance of the material as well as the attractiveness of the learning experience.

Several national studies over the past five years provide an empirical basis for the use of CTL and animated media, but show a fragmented focus. Putra et al., (2022) One study of fifth-grade students found that CTL implementation increased social studies learning motivation compared to pre-intervention learning conditions. Furthermore, Inwanti & Setiawan, (2025) a quasi-experimental study of 54 elementary school students found that the learning motivation of the group using animated videos reached an average of 77.85, higher than the group using conventional media at 74.15. These results align with those Hutapea et al., (2023) of those who developed Powtoon-based animated videos in fourth-grade elementary schools and reported an increase in learning motivation after using the media, with a coefficient of determination of 73.1%. More broadly, Hindriana et al., (2026) it shows that two-dimensional animated audiovisual media that connects abstract concepts with more familiar contexts can aid information processing, understanding, and concept retention. More recent research also suggests that animated videos specifically have the potential to increase elementary school students' learning motivation, both through direct use of animated videos and through the development of technology-based animated media (Yani et al., 2025; Syofyan et al., 2025). These four findings show that both CTL and animation have pedagogical potential, but national evidence still mostly tests both as separate interventions and in subjects other than Indonesian.

International findings reinforce this pattern and clarify the scope for further research. A study Yasin et al., (2023) in the European Journal of Educational Research showed that the application of CTL to 132 students in language learning significantly improved achievement and maintained the upward trend throughout the intervention. In the media dimension, Teplá et al., (2022) it was found that the use of three-dimensional models and animation significantly increased intrinsic motivation in 565 students, with a mean effect size of Hedges' $g = 0.38$, particularly in the areas of interest, effort, perceived competence, and usefulness of the material. Barut Tugtekin & Dursun, (2022) It also showed that groups using animated and interactive videos had higher motivation for the material without producing a higher cognitive load overall. Meanwhile, Kuhlmann et al., (2024) it was shown that active cognitive engagement of students when interacting with instructional videos is related to learning success, while Tani et al., (2022) a quasi-experimental design with more than 500 students found that multimedia presentations improved academic achievement, particularly procedural and evaluative knowledge, while strengthening metacognitive knowledge. Thus, the nine studies show the consistent benefits of CTL and audiovisual visualization, but have not specifically explained how CTL assisted by animated videos works as a unified intervention for the motivation to learn Indonesian in fifth grade elementary school students.

Based on the configuration of the findings, there is a research gap that confirms and limits the novelty of this research on the pedagogical integration between the CTL model and animated video media, not just on the use of CTL or video individually. Previous literature tends to test CTL on social studies, EFL, or academic achievement, while animated video

research is more placed on natural sciences, science, or multimedia-based learning; the initial manuscript of this research itself also identifies that studies integrating CTL with animated videos on the motivation to learn Indonesian at the elementary school level, especially grade V, are still limited. Thus, the research gap lies not only in the limited number of studies, but especially in the lack of empirical evidence that tests the integration of CTL and animated videos simultaneously in Indonesian language learning and specifically tests its impact on the learning motivation of fifth grade elementary school students. This novelty becomes substantive because the animated video in this study is not placed as a stand-alone media, but rather as an aid to strengthen the learning experience built through CTL so that the context of students' lives can be visualized and connected to the Indonesian language material. The position of this research thus complements previous research that has each shown the potential of CTL or animated video, but has not adequately explained the effectiveness of both when integrated in one Indonesian language learning design at the elementary school level. The urgency is heightened because this literature gap overlaps with empirical issues at the research site, where 58% of students are in the low motivation category, while national elementary school literacy rates remain in the moderate category. Therefore, the integration of these two components needs to be empirically tested so that decisions about its implementation in schools are not based solely on the assumption that visual technology is always engaging, but rather on evidence of changes in student learning motivation.

Based on the phenomena, empirical problems, and research gaps, this study aims to analyze the effect of the Contextual Teaching and Learning (CTL) model assisted by animated video media on the motivation to learn Indonesian at grade V students of SD IT Ar-Rahman, South Lampung. This objective directly addresses the need to obtain evidence regarding the effectiveness of the integration of contextual learning models and audiovisual media on affective variables which are the main problems at the research location. In accordance with the design in the source text, the test was conducted through a quantitative approach with a quasi-experimental and nonequivalent control group design, while learning motivation was measured using a questionnaire and supported by observation, interviews, and documentation. With this test, the study is expected to not only provide an empirical basis for teachers in designing more contextual and interesting Indonesian learning, but also expand scientific evidence regarding how the synergy between CTL pedagogical strategies and animated video media can be used to strengthen the learning motivation of elementary school students.

Method (منهج)

This study uses a quantitative approach with a *quasi-experimental method* and a *nonequivalent control group design*. A quasi-experimental design is used when treatment is given to pre-formed groups and the researcher does not *randomly assign* students individually (Denny et al., 2023; Capili & Anastasi, 2024). The experimental group received *Contextual Teaching and Learning* (CTL) learning assisted by animated video media, while the control group received *Direct Instruction learning* assisted by *PowerPoint*. Both groups were given a *pretest* before treatment and a *posttest* after treatment to measure motivation to learn Indonesian.

Table 1. Research Design

Group	Pretest	Treatment	Posttest
Experiment	O ₁	X ₁	O ₂
Control	O ₃	X ₂	O ₄

Description: O₁ and O₃ = measurement of learning motivation before treatment; O₂ and O₄ = measurement of learning motivation after treatment; X₁ = CTL learning assisted by

animated video media; $X_2 = \text{Direct Instruction}$ learning assisted by *PowerPoint*. The research was conducted at SD IT Ar-Rahman, South Lampung, in the odd semester of the 2025/2026 academic year. The learning material for both groups is Indonesian with the theme "The Unique Me".

The research population consisted of all fifth grade students of SD IT Ar-Rahman, totaling 97 students, spread across four classes, namely VA with 23 students, VB with 23 students, VC with 25 students, and VD with 26 students. The research sample involved 46 students from two intact classes, namely class VA with 23 students as the experimental group and class VB with 23 students as the control group.

Table 2. Distribution of Population and Research Sample

Class	Number of Students	Status in Research
VA	23	Experimental group
VB	23	Control group
VC	25	Population, not selected as sample
VD	26	Population, not selected as sample
Total Population	97	—
Total Sample	46	VA and VB

The use of intact classes is adapted to *quasi-experimental characteristics*, namely that interventions can be applied to groups that have been formed in actual educational situations when individual randomization is not carried out (Gopalan et al., 2020; Al-Buraiki et al., 2025). Because the randomization procedure for class selection was not adequately documented, this study does not claim to use *simple random sampling*. The initial conditions of both groups were further accounted for through *pretest scores* in the statistical analysis.

The research was conducted over six meetings for each group through the preparation stage, *pretest*, treatment administration, *posttest*, and data analysis. The preparation stage included the preparation of learning tools, preparation of animated videos and *PowerPoint*, and the preparation and testing of learning motivation instruments. The first meeting was used to administer the *pretest* to the experimental and control groups. The second to fifth meetings were used to implement learning according to the treatment of each group, while the sixth meeting was used for the *posttest*.

In the experimental group, learning was carried out by integrating animated video media into the seven CTL components, namely *constructivism*, *inquiry*, *questioning*, *learning community*, *modeling*, *reflection*, and *authentic assessment*. Animated videos were used as supporting media for contextual learning, primarily to present visual representations of the material and connect it to students' experiences. The implementation of the treatment is summarized in Table 3.

Table 3. CTL Syntax Assisted by Animated Video Media

CTL Stage	Teacher Activities	Student Activities	Utilization of Animated Videos
<i>Constructivism</i>	Linking learning materials with students' prior experiences and knowledge.	Connecting new information with existing experience or knowledge.	Animated videos are used as contextual stimuli to activate prior knowledge and connect the material to students' lives.
<i>Inquiry</i>	Direct students to make observations and find information related to	Observe, search, identify, and find information based on the stimulus or	Animated videos provide visual representations that serve as a source of

	the material.	problem given.	observation in the information discovery process.
<i>Questioning</i>	Provide provocative questions and give students the opportunity to ask questions.	Answer questions, ask questions, and clarify information that is not yet understood.	Animated videos are used as a stimulus to raise questions, curiosity, and discussion related to the material.
<i>Learning Community</i>	Facilitate group formation, discussion, and exchange of information between students.	Discuss, exchange information, express opinions, provide responses, and work together in groups.	Animated videos become a shared context or reference used in the discussion and information exchange process.
<i>Modeling</i>	Provide examples or modeling that are relevant to the learning material and tasks.	Observe examples, understand the steps shown, and apply them in learning activities.	Animated videos provide visual representation reinforcement of the material or examples being studied when relevant.
<i>Reflection</i>	Directing students to review the learning process, experiences, and outcomes.	Expressing understanding, experiences, difficulties, and things obtained during learning.	Students reconnect the context shown in the video with the material and learning experiences they have acquired.
<i>Authentic Assessment</i>	Assess the process, participation, understanding, and completion of student tasks based on learning activities.	Demonstrate understanding through participation, discussion, response to questions, and completion of assignments.	The animated videos were positioned as part of the CTL treatment context, not as a variable or intervention that was analyzed separately.

In the control group, the same material was delivered using the *PowerPoint*- assisted *Direct Instruction model*. The number of meetings and learning duration were the same as those in the experimental group. *PowerPoint* was used as the presentation medium according to the control group's learning tools. Thus, the difference between the groups lies in the learning treatment package, namely CTL assisted by animated videos compared to *PowerPoint*- assisted *Direct Instruction*, not in the use of animated videos as a stand-alone intervention.

The independent variable of the research is CTL learning assisted by animated video media, namely Indonesian language learning that applies seven CTL components with animated video as a supporting medium. The dependent variable is the motivation to learn Indonesian language of students. Operationally, learning motivation is defined as the score obtained by students through a learning motivation questionnaire based on six indicators, namely: (1) desire and desire to succeed; (2) drive and need in learning; (3) hopes and aspirations for the future; (4) appreciation in learning; (5) interesting activities in learning; and (6) a conducive learning environment. Thus, the measurement of variables is carried out through the relationship between the construct of learning motivation, indicators, statement items, and questionnaire scores.

The main research instrument was a learning motivation questionnaire administered at the *pretest* and *posttest stages*. The questionnaire was developed based on six indicators of learning motivation and initially consisted of 40 statements. The questionnaire used a graded response scale with scoring adjusted for the direction of positive and negative statements. The use of a graded response scale requires attention to the consistency of response categories, the direction of statements, and the potential for response bias because scale characteristics can be

related to the validity and reliability of the measurement.(Kusmaryono et al., 2022)

After undergoing item feasibility testing, the final instrument consisted of 30 valid items, while 10 items that did not meet the validity criteria were not used. The final item selection still took into account the representation of the six indicators to ensure the instrument not only had consistent measurement but also represented the learning motivation construct it was intended to measure. Validity and reliability are essential in ensuring the quality of educational instruments before they are used in data collection (Mejía-Clavo et al., 2024).

A questionnaire was used as the primary data source. Observations and documentation were used as supporting data to examine the implementation of the learning and document the research process. Observation and documentation data were not positioned as separate sources of qualitative analysis because the research focused on quantitatively examining learning motivation.

The validity of the instrument items was tested using *Pearson Product Moment correlation* with 23 students in the instrument trial phase. The test was conducted at a 5% significance level with an *r* table value of 0.413. Items were declared to meet the validity criteria if the item correlation coefficient exceeded the specified critical value. Based on testing of the 40 initial items, 30 items met the validity criteria and 10 items did not meet the criteria, so the final instrument used 30 items that still represented the six indicators of learning motivation. The use of instruments with evidence of validity and reliability is important to maintain the accuracy of score interpretation in educational research.(Ramadhan et al., 2024; Roach, 2025)

The internal consistency of the instrument was examined using Cronbach's Alpha with the help of IBM SPSS Statistics 25. The coefficient obtained was 0.968 in *the pretest* and 0.940 in *the posttest* . In educational research, Cronbach's Alpha can be used to describe the relationship or internal consistency between instrument components, but the alpha value needs to be interpreted together with the characteristics and representativeness of the construct, not treated as the only evidence of instrument quality (Zakariya, 2022).

Result (نتائج)

This study aims to analyze the effect of the *Contextual Teaching and Learning* (CTL) model assisted by animated video media on the motivation to learn Indonesian in fifth grade students of SD IT AR-RAHMAN South Lampung. The study used a quantitative approach with a *quasi-experimental* design . The research sample consisted of 46 students who were divided proportionally into an experimental group and a control group, each consisting of 23 students. The experimental group received learning using the CTL model assisted by animated videos, while the control group received *Direct Instruction* (DI) learning assisted by *PowerPoint* .

The instrument used to measure learning motivation consisted of 40 statements with four response alternatives. Before being used in research data collection, the instrument was piloted on 23 respondents to determine its descriptive characteristics, validity, and reliability.

Table 1. Descriptive Statistics of Instrument Trial

Statistics	Mark
N	23
Number of grains	40
Minimum	81.00
Maximum	145.00
Mean	114,1739
Standard deviation	21,51036
Average per grain	2,8543

Based on Table 1, the instrument trial scores ranged from 81.00 to 145.00, with an average of 114.1739 and a standard deviation of 21.51036. The average score per item of 2.8543 indicates that students' responses to the instrument statements tended to be in the medium to high category. The large standard deviation indicates variations in responses between students during the instrument trial stage.

Table 2. Results of the Pretest Validity Test

Information	Item Number	Amount
Valid	1, 2, 3, 5, 7, 8, 9, 10, 12, 14, 15, 16, 17, 19, 21, 22, 23, 24, 26, 27, 29, 30, 31, 32, 33, 35, 36, 37, 38, 39	30
Invalid	4, 6, 11, 13, 18, 20, 25, 28, 34, 40	10
Total	Items 1–40	40

the pretest instrument validity test showed that 30 of the 40 items met the validity criteria, while the remaining 10 were declared invalid. Thus, most of the instrument items were able to represent the learning motivation construct being measured.

Table 3. Posttest Validity Test Results

Information	Item Number	Amount
Valid	1, 2, 3, 5, 6, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17, 18, 19, 22, 23, 24, 25, 26, 28, 30, 31, 32, 34, 36, 38, 40	30
Invalid	4, 7, 20, 21, 27, 29, 33, 35, 37, 39	10
Total	Items 1–40	40

As shown in Table 3, 30 items in the *posttest instrument* were declared valid, and 10 were declared invalid. The proportion of valid items, which reached 75%, indicates that most items met the empirical criteria for measuring student learning motivation.

Table 4. Reliability Test Results

Testing	Cronbach's Alpha	N of Items	Interpretation
Pretest Instrument	0.968	40	Very high
Posttest Instrument	0.940	40	Very high

The reliability test results showed a *Cronbach's Alpha value* of 0.968 for the instrument and 0.940 for *the posttest*. Both coefficients indicate a very high level of internal consistency. Thus, the instrument has sufficient reliability to be used to measure learning motivation in this study.

The learning implementation in the experimental group was carried out in six meetings consisting of one *pretest meeting*, four treatment meetings, and one *posttest meeting*. The implementation of the CTL model assisted by animated videos refers to the components of *constructivism, inquiry, questioning, learning community, modeling, reflection*, and *authentic assessment*. Each stage of learning is directed so that students are able to connect Indonesian language material with everyday life experiences and contexts.

During the learning process, students had the opportunity to observe material through animated videos, identify information, ask questions, discuss problems, express opinions, complete assignments, and reflect on learning outcomes. Meanwhile, the control group participated in learning using the *Direct Instruction model with PowerPoint* assistance for the same number of meetings. The differences in treatment between the two groups served as the basis for analyzing changes in student learning motivation.

Descriptive analysis was conducted to provide an initial overview of the distribution of learning motivation scores in the experimental group and control group before and after treatment.

Table 5. Descriptive Statistics of Learning Motivation

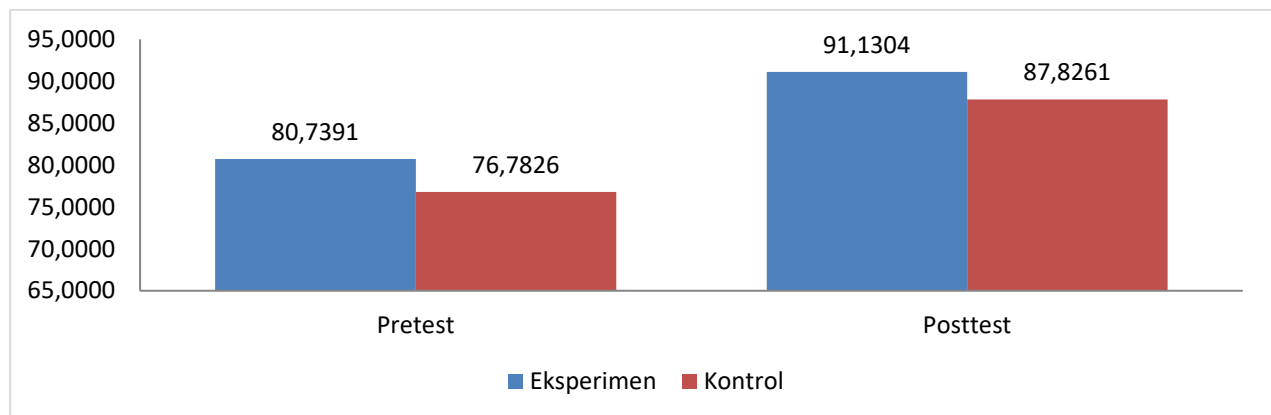
Group	N	Minimum	Maximum	Mean	Standard Deviation
Experiment Pretest	23	66.00	98.00	80,7391	9,20088
Experiment Posttest	23	69.00	104.00	91,1304	9.89171
Pretest Control	23	63.00	86.00	76.7826	6,58481
Posttest Control	23	65.00	99.00	87,8261	7.46904

Table 5 shows an increase in the average learning motivation score in both groups. In the experimental group, the average score increased from 80.7391 in the *pretest* to 91.1304 in the *posttest*. Meanwhile, the control group experienced an increase from 76.7826 to 87.8261. Descriptively, the average *posttest* score for the experimental group was higher than the control group.

Table 6. Average Changes in Learning Motivation

Group	Pretest	Posttest	Change
Experiment	80,7391	91,1304	10,3913
Control	76.7826	87,8261	11,0435

Based on Table 6, the experimental group experienced an average increase of 10.3913 points, while the control group experienced an increase of 11.0435 points. When compared based on final scores, the experimental group's *posttest average* was 3.3043 points higher than the control group's. However, the absolute magnitude of the increase in the control group was slightly higher than that of the experimental group. Therefore, this descriptive trend is not sufficient to conclude the superiority of a treatment without the support of inferential testing.

**Figure 1.** Comparison of Average Learning Motivation

Visually, a comparison of the means indicates that both groups experienced increased learning motivation after the lesson. The experimental group achieved a higher average final score than the control group, although the pattern of change between the two groups needs to be interpreted in conjunction with the results of statistical testing.

Prerequisite tests were conducted to determine the appropriate inferential statistical techniques for the characteristics of the research data. These tests included a normality test using the Shapiro-Wilk test and a homogeneity of variance test using *Levene's Test*.

Table 7. Results of the Shapiro-Wilk Normality Test

Data	Statistics	df	Sig.	Interpretation
Experiment Pretest	0.951	23	0.314	Normal
Experiment Posttest	0.904	23	0.031	Abnormal
Pretest Control	0.950	23	0.299	Normal
Posttest Control	0.920	23	0.068	Normal

The Shapiro–Wilk test results show that the *pretest data* of the experimental group ($p = 0.314$), the *pretest data* of the control group ($p = 0.299$), and the *posttest data* of the control group ($p = 0.068$) meet the normality assumption because they have a significance value greater than 0.05. In contrast, the *posttest data* of the experimental group has a significance value of 0.031 or less than 0.05 so it does not meet the normality assumption. These findings are taken into consideration in selecting the intergroup inferential analysis technique.

Table 8. Results of Homogeneity Test

Testing Basics	Levene Statistics	df1	df2	Sig.
Based on Mean	2,440	1	44	0.125
Based on Median	1,438	1	44	0.237
Based on Median and adjusted df	1,438	1	38,387	0.238
Based on Trimmed Mean	2,219	1	44	0.143

Based on *Levene's Test*, which refers to the mean, a significance value of 0.125 was obtained. This value is greater than the 0.05 significance level, so the data variance in both groups can be declared homogeneous. Thus, the assumption of homogeneity of variance is met.

Changes in learning motivation scores before and after learning were analyzed to determine whether there were differences in *pretest* and *posttest* scores in each group.

Table 9. Paired Samples *t*-Test Results

Group	t	Sig. (2-tailed)	Decision
Experiment	-55,606	< 0.001	There is a significant difference
Control	-25,766	< 0.001	There is a significant difference

Table 10. Results of ANOVA Regression Test

Model	Sum of Squares	df	Mean Square	F	Sig.
Regression	10,179,304	22	462,696	—	—
Residual	0,000	0	—	—	—
Total	10,179,304	22	—	—	—

The regression ANOVA output yielded a *residual df* of 0, so the F value and its significance probability could not be calculated. This condition indicates that the model lacked the residual degrees of freedom necessary to estimate model error. Therefore, the ANOVA results were not used as a basis for testing the main research hypothesis.

Using this output as a basis for drawing conclusions is also inappropriate because the total score, which serves as the dependent variable, is formed from the items used in the model. Therefore, testing the research hypothesis is directed at an analysis that directly compares learning motivation hypotheses between groups.

Intergroup hypothesis testing was conducted to determine whether there were differences in learning motivation between students who received CTL learning assisted by animated videos and students who received DI learning assisted by *PowerPoint*. The results of the normality test showed that one group of *posttest data* was not normally distributed. Therefore, the results of the parametric test need to be interpreted carefully and confirmed using nonparametric Mann–Whitney U analysis.

Table 11. Results of Testing Differences in Learning Motivation

Statistical Test	Statistics	Sig. (2-tailed)	Decision
Independent Samples t-Test	3,128	< 0.001	There is a significant difference
Mann–Whitney University	159,000	0.001	There is a significant difference

the Independent Samples t-Test output available in the research manuscript, a significance

value of $p < 0.001$ was obtained. These results indicate a significant difference between groups based on parametric testing. However, the t-statistic value is not yet listed in the available data and needs to be supplemented based on the original analysis output. Furthermore, because the *posttest data* for the experimental group did not meet the normality assumption, the decision on the intergroup hypothesis should be strengthened using the Mann-Whitney U test. The Mann-Whitney U, Z, and significance probability values cannot be reported because individual data or the original analysis output are not yet available. Therefore, these statistical values are not estimated or simulated in this study.

In addition to statistical significance, reporting research results should include effect sizes to provide practical information about the magnitude of intergroup differences. Effect sizes are important because significance values only indicate the statistical existence of a difference, while effect sizes indicate the strength or magnitude of the difference.

Table 12. Effect Size

Analysis	Effect Size	Mark	Interpretation
Posttest differences	Cohen's d	0.38	Small-moderate effects

The effect size values in Table 12 have not been included because the results of the effect size analysis are not yet available in the research data that form the basis for compiling this section. To maintain reporting validity, effect size values need to be filled in based on the results of the original data analysis and not determined through simulated data.



Discussion (مناقشة)

The results of the study showed that motivation to learn Indonesian increased in both the experimental and control groups after the learning process. The average learning motivation of the experimental group increased from 80.7391 in the *pretest* to 91.1304 in the *posttest*, while the control group increased from 76.7826 to 87.8261. In the final measurement, the average *posttest* of the experimental group was 3.3043 points higher than the control group. The results of the intergroup test reported in the study also showed a significant difference between students who participated in *Contextual Teaching and Learning* (CTL) learning assisted by animated video media and students who participated in *Direct Instruction* assisted by *PowerPoint*. These findings provide empirical evidence that the implementation of CTL assisted by animated video is related to higher final learning motivation achievements in fifth-grade Indonesian language learning.

However, the pattern of score changes needs to be interpreted proportionally. The average increase in the experimental group was 10.3913 points, while the control group increased by 11.0435 points. Thus, in absolute terms, the increase in the control group's score was slightly greater than that of the experimental group. This finding indicates that motivational changes did not only occur in the group that received CTL assisted by animated videos. Learning in the control group also provided learning experiences that enabled increased motivation. Therefore, the success of the treatment cannot be determined solely based on the difference between the *pretest* and *posttest* in each group, but must be seen in conjunction with the final scores and the results of direct testing between groups. Such interpretation is important in a *nonequivalent control group design* because the two groups had different initial conditions before the intervention.

Pedagogically, the higher final score of the experimental group's learning motivation can be explained by the characteristics of CTL, which emphasizes the connection between learning materials and students' real-life experiences. In this study, learning was implemented through seven CTL components: *constructivism*, *inquiry*, *questioning*, *learning community*, *modeling*,

reflection, and *authentic assessment*. Through these stages, students not only receive information from the teacher but are also involved in the process of connecting new knowledge with previous experiences, observing and finding information, asking questions, discussing, expressing opinions, observing modeling, and reflecting on learning experiences. This process makes learning more oriented towards student activity and provides them with the opportunity to construct meaning from the material being studied. This active engagement can explain the increase in motivation because students gain learning experiences that are more relevant to their lives, have the opportunity to take the initiative in finding information, and are given space to interact with peers and teachers. Thus, CTL not only changes the way material is delivered but also shifts students' positions from recipients of information to actors in the learning process. This condition has the potential to strengthen students' desire to succeed, their drive and need to learn, and their interest in learning activities.

This explanation is related to the construct of learning motivation used in this study. Learning motivation is measured based on six indicators: passion and desire to succeed, drive and need for learning, hopes and aspirations for the future, appreciation for learning, engaging learning activities, and a conducive learning environment. CTL activities have the potential to be directly related to several of these indicators. *Inquiry* and *questioning activities*, for example, provide space for curiosity and the need to obtain information; *learning communities* create a social learning environment that allows students to provide mutual support; while *reflection* and *authentic assessment* provide opportunities for students to recognize development and receive reinforcement for their learning process. Thus, CTL has pedagogical mechanisms relevant to the motivational dimensions measured in this study. When students can see the relationship between the material being studied and everyday experiences, the learning process becomes more meaningful and learning objectives are easier to understand. This relevance can reduce the impression that Indonesian language material only consists of information that must be memorized, so that students have a stronger reason to pay attention, participate in activities, and complete learning tasks.

The results of this study align with those of Putra et al. (2022), who demonstrated that the application of CTL can enhance students' learning motivation. This similarity suggests that learning that connects concepts to real-life experiences has the potential to strengthen student engagement in learning activities. However, this study expands on these findings because CTL is not implemented alone but is integrated with animated video media in Indonesian language learning. Thus, the context of this study differs from previous studies that have primarily positioned CTL as the primary intervention in other subjects. These results demonstrate that contextual principles are also relevant for Indonesian language learning in elementary schools when implemented through activities that encourage students to connect language material with everyday experiences. These findings also reinforce the results of Yasin et al. (2023) in the context of language learning, which showed that the application of CTL produced positive results. The similarity of these findings suggests that the principles of the interconnectedness of context, learner activity, and real-life experience are not only relevant for general subjects, but also for language learning, which requires learners to understand and use information in meaningful contexts.

In addition to the characteristics of CTL, the use of animated videos has the potential to strengthen the learning experience in the experimental group. Animated videos in this study were not placed as stand-alone additional media, but were integrated into each stage of contextual learning. At the *constructivism stage*, videos were used as stimuli to activate prior knowledge; at the *inquiry stage*, videos became a source of observation; at the *questioning stage*, the displays functioned to raise questions and curiosity; while in the *learning community*, videos became a shared context that could be discussed by students. This integration shows that the function of animated videos is not only to provide visual variation, but also to provide concrete

representations that are then processed through students' cognitive and social activities. This combination may explain why animated videos support motivation when placed within a CTL framework. Visual elements, movement, and sound make the material more concrete and attract attention, while the CTL stage directs this attention into activities of observing, asking, discovering, discussing, and reflecting. This means that videos do not stop at their entertainment function or presenting information, but become a stimulus that encourages students to be actively involved.

These findings are consistent with those of Inwanti and Setiawan (2025), who found that the group of students using animated videos experienced higher average learning motivation than the group using conventional media. These results also align with those of Hutapea et al. (2023), who reported increased learning motivation after using Powtoon-based animated videos. The similarities between the three studies lie in the ability of animated media to support students' attention and interest in learning. However, this study differs fundamentally because animated videos are positioned as part of the CTL syntax, rather than as an independent media variable. Therefore, the benefits that emerge are more appropriately understood as the result of the integration between audiovisual media and the design of contextual learning activities. Thus, the findings of this study extend previous research by showing that the power of animated video lies not only in its audiovisual characteristics, but also in how the medium is placed within a series of learning activities that provide opportunities for learners to think, communicate, collaborate, and connect the material to their experiences.

At the international level, the results of this study are also consistent with the findings of Teplá, Teplý, and Šmejkal (2022), who showed that the use of animation and three-dimensional visual representations can support students' intrinsic motivation, particularly in terms of interest, effort, perceived competence, and the usefulness of the material. The findings of Barut Tugtekin and Dursun (2022) also show that the use of animated and interactive videos can generate higher motivation towards the material without generally increasing students' cognitive load. This similarity strengthens the argument that audiovisual media can function as motivational stimuli if designed according to learning needs and does not burden students with irrelevant information. In this study, this motivational function was further strengthened because the video was not used passively. Students are guided to process information from the presentations through inquiry, questioning, discussion, and reflection. Therefore, the findings of this study align with previous research and demonstrate that the use of audiovisual media will be more meaningful when accompanied by pedagogical activities that require active student involvement.

However, the presence of videos does not automatically result in effective learning. Kuhlmann et al. (2024) demonstrated the importance of active cognitive engagement of learners when interacting with instructional videos. This finding is relevant to the results of this study because learners are not simply asked to passively watch videos. After observing the presentation, learners are directed to identify information, answer and ask questions, discuss the material, connect it to their experiences, and reflect. Thus, videos function as stimuli that initiate thinking and interaction, while CTL provides a pedagogical structure that allows information from the videos to be processed into more meaningful learning experiences. This condition theoretically explains why the integration of animated videos with CTL has the potential to support learning motivation. This mechanism is important in explaining the research results because increased motivation does not come solely from audiovisual displays, but from the integration between visual stimuli and accompanying learning activities.

The research findings are also consistent with Yasin et al. (2023), who showed that the implementation of CTL yields positive results in the context of language learning. The relevance of this research is important because language learning requires student involvement in interpreting information, communicating, conveying ideas, and connecting language use to

social contexts. In this study, the activities of asking questions, discussing, expressing opinions, and connecting material to everyday experiences provide space for students to use language skills in more meaningful situations. Thus, CTL not only provides a learning context but also creates conditions that enable language activities to occur through interactions during the learning process.

Learning process findings support this statistical interpretation. During the experimental group's learning, students demonstrated engagement in watching videos, finding information, asking and answering questions, expressing opinions, discussing, collaborating, and connecting the material to everyday experiences. This contrasts with the pre-study findings, which indicated that some students paid little attention to the lesson, had low learning initiative, and were still dependent on teacher direction. Therefore, the intervention used in this study changed the learning environment by expanding students' opportunities to engage in learning activities. Although these process findings were not the primary quantitative variables, their presence provides context that helps explain the changes in motivation scores after the treatment.

However, the improvement that also occurred in the control group is an empirical fact that deserves attention. The group that received *PowerPoint*- assisted *Direct Instruction* showed an average increase from 76.7826 to 87.8261, and the results of the *Paired Samples t-Test* also showed a significant change. These findings indicate that learning motivation is a construct that can be influenced by various learning components. Structured delivery of material, the use of presentation media, teacher attention, interaction during learning activities, and the experience of participating in the learning can contribute to changes in motivation. Therefore, this study does not provide a basis for stating that the entire increase in motivation in the experimental group was caused by the animated video alone.

These findings distinguish this study from the overly simplistic explanation that technology use automatically increases student motivation. The research evidence suggests that both groups experienced improvement despite using different learning packages. Therefore, media should not be positioned as a single factor, but as part of a pedagogical ecosystem encompassing learning models, student activities, social interactions, material characteristics, and the teacher's role. In the experimental group, the treatment's primary advantage lay in the integration of the contextual principles of CTL with the representational function of animated videos.

Data conditions also need to be part of the interpretation of the results. The Shapiro-Wilk test shows that the experimental group's *posttest* did not meet the assumption of normality with a significance value of 0.031, while the experimental *pretest*, control *pretest*, and control *posttest* met the assumption of normality. The homogeneity test shows a *Levene's Test* value of 0.125, so the variances of both groups can be declared homogeneous. These conditions indicate that the results of parametric testing need to be read carefully and supported by analysis consistent with the characteristics of the data distribution. The use of nonparametric analysis as confirmation provides a stronger basis in assessing whether intergroup differences remain when the assumption of normality is not fully met.

In addition, the initial conditions of both groups need to be considered. The experimental group had a *pretest* average of 80.7391, while the control group had a score of 76.7826. This difference indicates that the two groups did not begin the study with identical motivation levels. This is an important characteristic of *nonequivalent control group designs* that use intact classes without individual randomization. Therefore, the higher *posttest* score of the experimental group should not be interpreted separately from the initial score. The results are more appropriately read as evidence that after participating in two different learning packages, there are different patterns of motivational achievement between the groups, while still considering the differences in initial conditions.

In the context of the literature, the findings of this study have added value because most previous studies still place CTL and animated videos in relatively separate research paths. Putra et al. (2022) emphasize the application of CTL, while Inwanti and Setiawan (2025) and Hutapea et al. (2023) are more oriented towards the use of animated media. Similarly, international literature shows evidence of the benefits of CTL in language learning and the benefits of visualization and video on motivation or engagement, but has not specifically explained the integration of CTL assisted by animated videos on the motivation of fifth-grade elementary school students to learn Indonesian. This gap becomes an area of contribution for this study.

Thus, the novelty of this research lies not in the creation of a new CTL model or animated video media, but in the configuration of the pedagogical integration of both in a more specific context. Animated videos are used to strengthen the contextual experience built through the seven components of CTL, while the variable tested is the motivation to learn Indonesian in elementary school students. This position distinguishes this research from studies that only compare animated media with conventional media or only test CTL without audiovisual support. The research findings expand the evidence that contextual pedagogical strategies can be combined with audiovisual representations to build a more relevant, participatory, and engaging learning environment for students.

Theoretically, this study reinforces the view that learning motivation is not only influenced by internal factors of students, but also by the characteristics of the learning environment and activities. When learning activities provide opportunities to understand the relevance of the material, interact with friends, gain experience finding information, and receive interesting stimuli, students have more reasons to maintain engagement in the learning process. This is in accordance with the indicators of learning motivation that place interesting learning activities and a conducive learning environment as part of the motivational construct. The CTL assisted by animated videos in this study provides both conditions through a combination of real context, participatory activities, and audiovisual representations.

Practically, the research findings imply that Indonesian language teachers in elementary schools can utilize animated videos as part of contextual activities, not simply as a display medium. Videos can be used to activate students' prior experiences, present situations close to their lives, raise questions, provide discussion material, and support reflection. Thus, the effectiveness of media use depends on how teachers integrate it with learning objectives, materials, and activities. The use of technology without a clear pedagogical design risks providing only temporary appeal without generating meaningful learning engagement.

Another implication is that CTL assisted by animated videos can be considered as an alternative to address low motivation to learn Indonesian, especially in learning that tends to be less connected to the material with the students' experiences. However, its implementation needs to pay attention to the suitability of the video to the material, the students' developmental level, the duration of the broadcast, the quality of the information, and follow-up activities after the video is shown. Teachers also continue to play a crucial role as facilitators in directing *inquiry activities*, questions, discussions, reflections, and authentic assessments so that learning does not stop at the activity of watching.

This study has several limitations. First, the sample only involved 46 students from one school, so generalization of the findings needs to be done carefully. Second, the study used pre-formed classes without individual randomization, so the possibility of differences in initial characteristics between groups cannot be completely eliminated. Third, the treatment was implemented over a relatively short period, so the study does not yet explain whether changes in motivation can be maintained in the long term. Fourth, learning motivation was primarily measured through questionnaires, so the results of the study are still influenced by the characteristics of *self-report measurements*. Fifth, the study compared CTL assisted by animated

videos with *Direct Instruction* assisted by *PowerPoint*, so the specific contributions between the CTL model and animated video media cannot be separated causally.

This final limitation has important implications for future research. Further research could use designs involving more than two groups, for example, CTL with animated video, CTL without animated video, *Direct Instruction* with animated video, and *Direct Instruction* without animated video. Such designs would allow for a more specific analysis of the contributions of learning models and media. Future research could also involve a larger number of schools and students, use a longer intervention duration, and supplement the motivation questionnaire with behavioral indicators such as frequency of participation, persistence in completing tasks, engagement in discussions, and structured observations.

Taking these findings into account, the increase in motivation in the experimental group can be understood through complementary mechanisms. CTL provides context, activities, and interactions that make students feel that the material is relevant to their experiences, while animated videos provide audiovisual stimuli that help present the context in a more concrete and engaging way. When the video stimulus is followed by inquiry, questioning, learning community, modeling, reflection, and authentic assessment, students not only see information, but are involved in the process of processing and using it. This integration is what pedagogically explains why the average posttest score of the experimental group reached 91.1304 and was 3.3043 points higher than the control group which reached 87.8261. In other words, the main contribution of the treatment is not solely on the use of animated videos, but on the synergy between the CTL learning context and the function of video as a visual stimulus to increase student attention, curiosity, participation, and engagement.

Overall, the research findings are consistent with national and international literature demonstrating the potential of CTL and audiovisual media to support learning engagement and motivation. However, this study provides a more specific context by integrating animated videos into the CTL phase of Indonesian language learning in fifth-grade elementary schools. The fact that the control group also experienced improvements suggests that changes in motivation cannot be explained by a single factor. Therefore, the main contribution of this study lies in empirical evidence regarding the potential of integrating contextual learning strategies and audiovisual media as a single pedagogical package to create a more relevant, active, and engaging Indonesian language learning experience, while still considering the characteristics of the data and the limitations of the quasi-experimental design.



Conclusion (خاتمة)

Conclusion

This study shows that the application of Contextual Teaching and Learning (CTL) assisted by animated video media has the potential to increase the motivation to learn Indonesian in fifth grade students of SD IT Ar-Rahman, South Lampung. The average learning motivation of the experimental group increased from 80.7391 in the pretest to 91.1304 in the posttest, while the control group increased from 76.7826 to 87.8261. Although the absolute increase in the control group was slightly greater, the final score of the experimental group was higher and the test results showed differences in learning motivation between groups after learning.

Practically, these findings provide implications for Indonesian language teachers: animated videos can be utilized as part of CTL learning to present contexts close to students' experiences, raise questions, support discussions, and encourage reflection. Thus, teachers should not only use videos as a presentation medium but also integrate them with CTL activities to make Indonesian language learning more contextual, active, and engaging.



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