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FROM MOVING IMAGES TO WRITTEN DETAIL: SCAFFOLDING DESCRIPTIVE WRITING THROUGH ANIMATED VIDEO

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ABSTRAK

Animated video may support descriptive writing by making observable features available for noticing and lexicalization; however, evidence from a one-group design must be interpreted as within-group change rather than as a causal effect. This study investigated changes in tenth-grade students' descriptive-writing performance after animated-video-supported instruction at SMAN 1 Lhoknga, Aceh Besar. A one-group pretest–posttest design involved 25 students from class X-3, selected purposively from a Grade X population of 240 students in the 2023/2024 academic year. Students completed an initial descriptive paragraph, four instructional sessions combining animated video, printed still images, vocabulary prompting, guided planning, and paragraph writing, and a comparable posttest task. Compositions were scored for content, organization, vocabulary, grammar, and mechanics. Because the paired difference scores departed from normality, the analysis used descriptive statistics, individual normalized gain, and an exact two-sided Wilcoxon signed-rank test. The mean increased from 46.44 (SD = 8.94) to 77.72 (SD = 4.95), a gain of 31.28 points; all 25 students obtained higher posttest scores. Mean normalized gain was 57.08% (SD = 11.53), with values from 26.67% to 76.79%. The paired comparison was significant, $W = 0$, exact $p < .001$, and the rank-biserial correlation was 1.00, indicating that every observed difference favored the posttest. The findings provide strong evidence of substantial improvement within this class, but the lack of a comparison group, purposive sampling, short duration, and undocumented scoring reliability preclude attributing the gain to animated video alone. Animated video is therefore best understood as one component of a scaffolded writing sequence that also requires explicit language instruction, practice, and feedback.

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INTRODUCTION

Writing is a complex form of learning and communication that develops through explicit instruction and sustained opportunities to plan, draft, receive feedback, and revise (Graham, 2019). In EFL settings, learners must coordinate idea generation, genre

expectations, organization, vocabulary, grammar, and mechanics in a language with limited everyday exposure. Research on genre-based and self-regulated writing instruction further indicates that performance develops alongside task knowledge, self-efficacy, and strategic control (Han & Hiver, 2018; Teng & Zhang, 2020).

These demands are especially visible in descriptive writing. A successful paragraph identifies a person, place, or object and develops a coherent representation through specific, relevant details. Learners must decide what is worth noticing, select precise nouns and modifiers, group information logically, and encode it in comprehensible sentences. Limited vocabulary and weak observational support can therefore create a blank-page problem even when students recognize the generic structure of a descriptive text.

Contemporary L2 writing research also treats meaning-making as increasingly multimodal. Studies of digital multimodal composing show that images, speech, movement, and written language can redistribute attention and support learner investment, but they also require deliberate task and assessment design (Hafner & Ho, 2020; Jiang, 2018; Lim & Polio, 2020). The present study examines a narrower arrangement: students view animation as input and then produce conventional written paragraphs. This distinction keeps the assessed construct focused on descriptive writing rather than on the design quality of a multimodal product.

Animated video can support the early stages of writing by providing a shared and concrete object of observation. Movement, setting, color, expression, and action can supply details that students translate into words and sentences. Pausing or replaying a scene also enables the teacher to direct attention, prompt lexical retrieval, and stage discussion before drafting. Evidence-based reviews emphasize, however, that instructional video is most effective when it is concise, coherent, segmented, and paired with generative activity rather than used for passive viewing (Fiorella & Mayer, 2018; Mayer et al., 2020).

Broader syntheses likewise indicate that video can improve learning when it supplements purposeful instruction, while outcomes remain sensitive to design, task, and comparison conditions (Noetel et al., 2021, 2022). Animation should therefore not be treated as automatically superior to static pictures. Dynamic displays are particularly useful when change or motion is relevant, whereas still images can better support prolonged inspection of stable spatial features (Ploetzner et al., 2021).

Attention guidance is equally important. Meta-analytic evidence shows that signaling can focus learners on relevant relations in multimedia materials, although its benefits depend on how cues are designed and on the complexity of the learning task (Alpizar et

al., 2020; Schneider et al., 2018). Combining animation with printed still images and teacher prompts is therefore theoretically defensible for descriptive writing: animation establishes context and change, while still images permit close inspection and linguistic labeling.

The Indonesian EFL context strengthens the need for carefully scaffolded visual input because classroom opportunities, policy conditions, and access to English vary substantially across settings (Zein et al., 2020). Sari et al. (2021) reported higher narrative-writing achievement among secondary learners taught with short animated video than among a comparison group. That finding is promising, but descriptive writing presents a different problem: learners must select and organize sensory and factual detail rather than primarily reconstruct an event sequence. Context-specific evidence is consequently needed.

Against this background, the study investigates two questions: (1) How did students' descriptive-writing scores change after four sessions of animated-video-supported instruction? and (2) How large and consistent was the improvement across the 25 students? Because the same students completed both assessments, the analysis preserves the paired structure of the observations. The study is explicitly framed as evidence of change within one class, not as proof that animated video alone caused that change.

METHOD

Research Design and Participants

The study employed a quantitative pre-experimental one-group pretest–posttest design. This design can establish whether measured performance changed after instruction, but it cannot distinguish the intervention from practice, maturation, teacher attention, or other time-related influences. The target population comprised 240 Grade X students at SMAN 1 Lhoknga, Aceh Besar, in the 2023/2024 academic year. Class X-3 was purposively selected because it included students with varied backgrounds and ability levels. The analyzed sample consisted of 25 students.

Instructional Procedure

Students first completed a pretest by independently writing a descriptive paragraph about a place. Four instructional sessions followed. In each session, the teacher presented animated material containing observable descriptive information, guided students to identify salient details and useful vocabulary, and supplied printed images as stable visual prompts. Students then organized their observations and drafted descriptive paragraphs with teacher guidance. After the four sessions, they completed a comparable posttest task

intended to measure change in descriptive-writing performance.

Table 1. Sequence and Instructional Purpose

Stage	Classroom activity	Primary purpose
Pretest	Individual paragraph describing a place	Establish initial writing performance
Four sessions	View animated material; notice details; generate vocabulary; use printed images; draft descriptive paragraphs	Scaffold observation, idea development, and text production
Posttest	Individual descriptive-writing task after instruction	Measure post-intervention performance

Writing Assessment

The pretest and posttest compositions were evaluated on a 0–100 scale using five analytic dimensions: content, organization, vocabulary, grammar, and mechanics. These dimensions make different aspects of writing performance visible, but valid analytic scoring also requires transparent criteria and consistent rater procedures. The available research record did not specify the number of raters, dimension weights, rater training, or inter-rater reliability, and dimension-level scores were not retained. The analysis therefore uses the recorded total scores and treats the absence of scoring-reliability evidence as a limitation.

Table 2. Analytic Dimensions Used to Evaluate Writing

Dimension	Focus of evaluation
Content	Relevance, specificity, and development of descriptive ideas
Organization	Logical arrangement, coherence, and paragraph unity
Vocabulary	Range, precision, and contextual appropriateness of words
Grammar	Sentence formation and control of language forms
Mechanics	Spelling, capitalization, and punctuation

Data Analysis

Means, sample standard deviations, medians, first and third quartiles, and score ranges were calculated for the two assessments. Each student's normalized gain was computed as (posttest − pretest)/(100 − pretest) × 100 to provide a descriptive summary adjusted for the available improvement ceiling. Because common normalized-gain interpretation bands were developed outside L2 writing assessment, values were not categorized as low, moderate, or high.

The Shapiro–Wilk test indicated that the 25 paired difference scores departed from normality ($p = .010$), largely because one student began with a substantially higher pretest score and thus had less room to improve. An exact two-sided Wilcoxon signed-rank test was therefore used to compare pretest and posttest scores at $\alpha = .05$. Rank-biserial correlation was reported to describe the direction and consistency of the paired differences.

An independent-samples test was not appropriate because both measurements came from the same students.

RESULTS AND DISCUSSION

Results

Table 3 summarizes performance before and after instruction. The mean increased from 46.44 to 77.72, an average improvement of 31.28 points, while the median rose from 44 to 77. Posttest scores were also more concentrated (SD = 4.95) than pretest scores (SD = 8.94). The broad pretest range was partly produced by one score of 85; the remaining students began between 37 and 55. Posttest scores ranged from 68 to 89.

Table 3. Descriptive Statistics for Writing Scores

Measure	M	SD	Median	Q1–Q3	Min–Max
Pretest	46.44	8.94	44.00	43–46	37–85
Posttest	77.72	4.95	77.00	76–79	68–89
Raw gain	31.28	8.74	34.00	28–35	4–45
N-gain (%)	57.08	11.53	58.93	54.72–62.50	26.67–76.79

Note. M = mean; SD = sample standard deviation; Q1–Q3 = first to third quartile. Raw gain is reported in score points, not as a percentage.

Improvement was consistent across the sample: every student obtained a higher posttest score. Individual raw gains ranged from 4 to 45 points. The smallest gain belonged to the student whose pretest score was 85 and posttest score was 89, illustrating the ceiling constraint addressed by the normalized-gain calculation. Individual normalized gains ranged from 26.67% to 76.79%, with a mean of 57.08%.

Table 4. Paired Comparison of Pretest and Posttest Scores

Comparison	n	W	Exact p	Rank-biserial r	Direction
Posttest vs. pretest	25	0.00	< .001	1.00	25 higher; 0 lower

The exact Wilcoxon signed-rank test confirmed an upward shift in the paired score distribution, $W = 0$, $p < .001$. A rank-biserial correlation of 1.00 does not represent a perfectly estimated causal effect; it indicates that all observed nonzero differences were in the same direction. Together with the 31.28-point mean gain, the result provides strong evidence of substantial within-class improvement during the study period.

Animated Video as an Idea-Generation Scaffold

The score pattern is consistent with animated video functioning as an idea-generation scaffold. Descriptive writing begins with selective noticing: students must determine which

visible or implied features are relevant before they can choose language for them. A shared video supplies a common referent, while pausing, replaying, and cueing can focus observation and make details available for lexicalization. This interpretation aligns with evidence that concise segments, signaling, and learner-generated activity strengthen multimedia learning (Alpizar et al., 2020; Mayer et al., 2020; Schneider et al., 2018).

The use of printed pictures alongside animation is pedagogically important. Animation can make movement and changing expressions salient, whereas a still image permits prolonged inspection of color, position, shape, and setting. Ploetzner et al. (2021) similarly showed that animation is especially advantageous when change is central to the task. A defensible sequence for descriptive writing is therefore to view for context, pause or capture key frames, label details, group related observations, and then draft. This sequence also reflects the wider conclusion that multimedia works best when design decisions are aligned with the intended cognitive activity (Noetel et al., 2022).

From Visual Detail to Language

Visual input alone cannot produce a well-formed paragraph. Students still require lexical resources, sentence patterns, genre knowledge, and a principle for organizing details. The observed gain likely reflects the complete activity system—video, printed images, teacher prompts, vocabulary work, guided planning, and repeated writing—rather than the video file in isolation. This interpretation is consistent with multimodal-writing research, which treats images and language as coordinated meaning-making resources rather than interchangeable modes (Hafner & Ho, 2020; Lim & Polio, 2020).

A practical lesson should require several transformations of the visual material. Students might first list nouns and modifiers, form noun phrases, group details by location or attribute, draft identification and description sentences, and revise for coherence. Such staged planning and monitoring are consistent with self-regulated writing instruction (Teng & Zhang, 2020). Explicit feedback remains necessary because richer visual input does not automatically improve grammar, word choice, or mechanics; students' engagement with feedback determines whether it informs revision (Zhang & Hyland, 2018, 2023).

Comparison With Previous Research

The within-group improvement aligns with Sari et al. (2021), who reported higher narrative-writing achievement among secondary learners taught with short animated video than among a comparison group. It is also compatible with systematic evidence that

video and well-designed multimedia often support learning (Noetel et al., 2021, 2022). Research on digital multimodal composing further shows that moving between visual, oral, and written resources can reshape learners' attention, investment, and composing processes (Jiang, 2018; Tan, 2023). The present study extends this practical possibility to the use of animated input for a conventional descriptive-writing task.

The appropriate conclusion nevertheless remains narrower than a causal claim. A statistically significant pretest–posttest difference demonstrates that performance changed, but it does not identify which component produced the change. Students may have benefited from repeated practice, teacher feedback, vocabulary prompting, task familiarity, printed pictures, animation, or their combination. A controlled design that holds writing time, materials, and teacher guidance constant would be needed to estimate the added value of animated video.

Pedagogical Implications

For classroom use, animated video should be concise, relevant to the target genre, and rich in observable detail without overwhelming learners. Teachers can preview essential vocabulary, segment the video, pause at purposeful moments, signal important features, and provide an organizer for identification and description (Fiorella & Mayer, 2018; Mayer et al., 2020). Recent applied research likewise supports theory-informed visual design while cautioning that interest should be connected to measurable learning activity (Bland et al., 2024). Students should ultimately write independently so that visual support leads to text production rather than remaining an end in itself.

Teachers should also distinguish engagement from learning. Interest is useful when it sustains observation, planning, drafting, and revision, but it should culminate in an observable language task. Feedback may be delivered through text or audiovisual modes, yet its value depends on clarity, interpersonal positioning, and the learner's active response (Cunningham & Link, 2021; Zhang & Hyland, 2018). In the diverse Indonesian context, implementation should also account for local access, classroom conditions, and curricular expectations rather than assuming that the same technological arrangement will function identically across schools (Zein et al., 2020).

Limitations

Five limitations should guide interpretation. First, one purposively selected class was studied without a comparison group, so the results are context-specific and cannot establish

causality. Second, the intervention lasted only four sessions and did not include a delayed posttest; retention is unknown. Third, the available record did not document rater training, dimension weights, or inter-rater reliability. Fourth, only total scores were retained, and motivation was not measured systematically; the study therefore cannot identify which writing dimension changed most or whether engagement mediated improvement. Fifth, the manuscript should report consent and research-ethics procedures explicitly because an approval identifier or consent documentation was not included in the available record.

CONCLUSION

The 25 students at SMAN 1 Lhoknga produced substantially higher descriptive-writing scores after four sessions of animated-video-supported instruction. The class mean increased by 31.28 points, mean normalized gain was 57.08%, and every student improved. An exact paired Wilcoxon analysis confirmed the upward shift, $W = 0$, $p < .001$. The evidence therefore supports animated video as a promising scaffold for noticing details, generating vocabulary, and organizing ideas when it is integrated with still images, explicit prompts, guided practice, and feedback.

The findings do not demonstrate that video alone caused the improvement. Future studies should compare animated-video instruction with an equivalent non-video condition, use random or matched assignment where feasible, document scoring reliability and ethics procedures, retain scores for each analytic dimension, and include a delayed posttest. For current practice, teachers should select concise videos, pause strategically, convert scenes into vocabulary and planning notes, and ensure that every viewing culminates in independent drafting and revision.

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