

CHAPTER II

LITERATURE REVIEW

A. Theoretical Foundations

This chapter presents the theoretical foundations relevant to the present study, covering the nature of English language teaching for young learners, the construct of learning interest and its developmental phases, the Cognitive Theory of Multimedia Learning, the role of interactive multimedia in education, and Articulate Storyline 3 as an instructional medium. This chapter also reviews previous research related to the use of Articulate Storyline and other interactive media in elementary and secondary education settings, positioning the present study within the existing body of literature.

1. English Language Teaching for Young Learners

English as a Foreign Language (EFL) instruction for young learners differs substantially from instruction designed for adolescents or adults, primarily due to differences in cognitive development, attention span, and modes of information processing. Young learners, typically defined as children between the ages of six and twelve, tend to acquire language most effectively through concrete, sensory-rich, and playful experiences rather than through abstract explanation or rote memorization (Zein, 2026). In the Indonesian context, English is often introduced as a local-content or compulsory subject at the primary level, yet its implementation continues to face challenges related to teacher readiness, curriculum adaptation, and the availability of age-appropriate instructional resources.

The introduction of Kurikulum Merdeka has intensified the demand for student-centred, technology-integrated approaches to English instruction. According to Haleem et al. (2022), digital technologies possess the potential to transform passive classrooms into active, participatory learning environments, provided that teachers are adequately equipped with the pedagogical and technical competence needed to design and deliver such materials. Within this framework, interactive multimedia represents a promising avenue for bridging the gap between curriculum aspirations and classroom realities, particularly for young learners who

benefit from multisensory input and immediate feedback during the language-learning process.

This student-centred orientation is equally relevant to the development of productive language skills, such as speaking. Within language instruction more broadly, the development of speaking skills requires a communicative approach that positions the learner, rather than the teacher, at the centre of the learning process, typically through simulations of real-life communicative contexts (Qasserras, 2023). Young and beginner-level language learners in particular tend to respond more readily to multimodal media that responsively combine visual, auditory, and kinaesthetic elements, a combination that has been shown to strengthen vocabulary retention and fluency of expression more effectively than single-mode instructional input (Yolanda et al., 2022). These findings lend further theoretical support to the use of Articulate Storyline 3 in the present study, since its integration of animated visuals, audio narration, and interactive response mechanisms directly mirrors the multimodal, communicative conditions identified as conducive to language development among young learners.

Another characteristic that distinguishes young learners from older learners is their comparatively shorter attention span and their reliance on immediate, tangible rewards and feedback to sustain engagement with a task. Where an adolescent or adult learner may tolerate a delayed sense of accomplishment, such as waiting until the end of a unit to see improvement, young learners generally require more frequent, moment-to-moment cues that confirm they are progressing, whether in the form of praise, visual rewards, or correct-answer indicators. This characteristic has direct implications for instructional media design: a medium capable of delivering frequent micro-feedback, such as an interactive quiz that confirms each answer immediately rather than only at the end of a lengthy exercise, is therefore better matched to young learners' psychological needs than materials that withhold feedback until a later point (Nisa & Ansori, 2025).

Within the specific context of SDN Rancatungku 01, these general characteristics of young learners intersect with practical classroom realities, including a single English lesson period per week, a curriculum that must cover

multiple thematic units across a semester, and a teacher who is simultaneously responsible for planning, delivering, and assessing instruction without dedicated technical support. These constraints mean that any proposed instructional innovation, including interactive multimedia, must be evaluated not only for its theoretical alignment with young learners' characteristics but also for its practical feasibility within an ordinary Indonesian public elementary school setting, a consideration that directly informed the selection of Articulate Storyline 3, given its single-projector deployment model, as elaborated in Section 5 of this chapter.

2. Learning Interest

Learning interest refers to the psychological state characterized by increased attention, concentration, and affective engagement that emerges when an individual interacts with a particular object, activity, or domain of knowledge (Renninger & Hidi, 2022). Unlike more general motivational constructs, interest is content-specific; a learner may exhibit strong interest in one subject while showing indifference toward another, depending on the interaction between personal disposition and the characteristics of the learning environment.

Renninger & Hidi (2022) propose the Four-Phase Model of Interest Development, which conceptualizes interest as evolving through four sequential phases. The first phase, triggered situational interest, occurs when an external stimulus, such as a novel visual, sound, or activity, captures a learner's attention, often momentarily. The second phase, maintained situational interest, develops when the initial trigger is sustained through continued engagement, meaningful tasks, or supportive feedback, allowing the learner's attention to persist over a longer period. The third phase, emerging individual interest, marks a shift toward a more internally driven engagement, in which the learner begins to seek out the activity or topic voluntarily and derives a sense of personal value from it. The fourth and most developed phase, well-developed individual interest, is characterized by sustained, self-generated engagement accompanied by deep stores of knowledge and positive affect toward the domain, often persisting independently of external stimulation.

This model provides a valuable lens for understanding how instructional interventions, such as interactive multimedia, may function primarily to trigger and maintain situational interest within the relatively short timeframe of a classroom intervention, while the cultivation of individual interest typically requires more sustained and long-term exposure. In the present study, the questionnaire instrument was developed based on this framework, encompassing four indicators: attention, participation, enthusiasm, and curiosity, each reflecting affective and cognitive components associated with the early phases of interest development.

This conceptualization of interest is closely tied to a broader constructivist understanding of the learning process itself. Learning is fundamentally a mental and psychological activity in which the individual is an active agent, constructing personal understanding through interaction with the learning environment and direct, concrete experience, rather than merely absorbing information transmitted by the teacher (Nerita et al., 2023). Viewed from this perspective, students' interest in learning does not emerge in isolation; rather, it is substantially shaped by the extent to which instructional media suit learners' characteristics, the degree of emotional involvement fostered during the lesson, and the availability of interactive pedagogical stimulation that invites active participation rather than passive reception (Sari & Harjono, 2021). This constructivist framing reinforces the theoretical rationale for employing Articulate Storyline 3 in the present study: by requiring students to navigate menus, respond to quizzes, and engage with animated scenarios rather than simply listen to a lecture, the media positions students as active constructors of meaning, a condition considered conducive to the emergence and maintenance of learning interest.

It is important to distinguish learning interest from related but conceptually distinct constructs, such as motivation and enjoyment (Ali et al., 2025). Motivation is typically understood as a broader energizing force directing behaviour toward a goal, which may be driven by external rewards, obligation, or internalized value, whereas interest specifically denotes engagement with a particular content or activity for its own sake. Enjoyment, meanwhile, refers to a transient positive affective state that may or may not be accompanied by sustained attention or a

desire to re-engage with the material. A student may, for instance, enjoy watching an animated video without necessarily developing lasting interest in the underlying subject matter once the novelty fades. This distinction is analytically important for the present study, since the questionnaire instrument was designed specifically to capture indicators associated with interest, namely attention, participation, enthusiasm, and curiosity, rather than enjoyment or motivation more broadly, in order to ensure that any documented change reflects the intended construct.

It is also worth situating learning interest within its broader consequences for language learning specifically. Interest has been theorized to function not merely as a pleasant accompaniment to instruction but as a mechanism that influences the depth of cognitive processing a learner applies to new material; a learner who finds a lesson interesting is more likely to engage in elaborative processing, such as forming associations between new vocabulary and prior knowledge, than a learner who is bored or indifferent (Susanti et al., 2021). In the context of foreign language vocabulary acquisition specifically, this deeper processing is theorized to translate into stronger encoding and, over time, better retention, suggesting that the practical significance of learning interest extends beyond the affective domain into the cognitive outcomes that language educators ultimately care about, even though the present study's dependent variable is restricted to interest itself rather than vocabulary retention or achievement.

3. Cognitive Theory of Multimedia Learning

The Cognitive Theory of Multimedia Learning (CTML), developed and refined by Mayer (2024), provides the primary theoretical framework underpinning the design and implementation of interactive multimedia in this study. CTML is grounded in three core assumptions regarding human cognitive architecture: the dual-channel assumption, which holds that learners process visual and auditory information through separate cognitive channels; the limited-capacity assumption, which recognizes that each channel possesses a restricted capacity for processing

information at any given time; and the active-processing assumption, which posits that meaningful learning occurs when learners actively select, organize, and integrate incoming information with existing knowledge structures.

Building on these assumptions, Mayer (2024) articulates several instructional design principles, including the multimedia principle, which suggests that learners understand material better when it is presented through both words and pictures rather than words alone; the modality principle, which recommends presenting verbal information in spoken rather than written form when accompanied by visuals, thereby distributing the cognitive load across both channels (Castro-Alonso & Sweller, 2021); and the coherence principle, which advises the exclusion of extraneous material that does not directly support the intended learning objective. Collectively, these principles suggest that well-designed multimedia, such as the modules developed using Articulate Storyline 3 in this study, can facilitate deeper cognitive processing and, consequently, greater engagement and interest, by aligning instructional presentation with the natural constraints and capacities of the human cognitive system.

In the context of the present study, the audio narration accompanying vocabulary items operationalizes the dual-channel principle by pairing spoken pronunciation with corresponding visual text, thereby distributing cognitive load across the auditory and visual channels rather than overburdening a single channel with both textual and pictorial information simultaneously.

Beyond the dual-channel, limited-capacity, and active-processing assumptions, Mayer (2024) more recent articulation of CTML also emphasizes the role of learners' prior knowledge and motivational state in moderating how effectively multimedia principles translate into actual learning gains. Learners with little prior exposure to a topic, such as fifth-grade students encountering months and ordinal numbers in English for the first time, stand to benefit particularly strongly from well-designed multimedia, since such learners lack an existing knowledge structure onto which to anchor new verbal information and therefore depend more heavily on the concrete, dual-channel scaffolding that images, animation, and narration provide. This consideration is directly relevant to the

present study's target population, since fifth-grade students at SDN Rancatungku 01 were, prior to the intervention, described in Chapter I as having had limited prior engagement with interactive English instruction.

CTML further distinguishes between essential processing, the cognitive work required to make sense of the core material, and extraneous processing, cognitive effort expended on the way information is presented rather than its substance. Well-designed multimedia aims to minimize extraneous processing, for instance by removing decorative but irrelevant animations or background music that competes with narration, so that a greater share of the learner's limited cognitive capacity remains available for essential processing of the target vocabulary and grammatical structures. This principle guided decisions in the design of the Articulate Storyline 3 module used in this study, such as limiting each screen to a single core vocabulary item accompanied by directly relevant narration and imagery, rather than combining multiple unrelated stimuli on a single screen.

CTML's relevance to the present study extends beyond guiding the media's design to offering a plausible explanatory account for why an improvement in learning interest, rather than only learning outcomes, might be expected from a well-designed multimedia intervention. Because CTML posits that effective multimedia design reduces the cognitive effort required to process incoming information, learners exposed to such design are theorized to experience the learning task as less effortful and more manageable, a state that is itself conducive to positive affective responses such as enthusiasm and reduced anxiety. In this sense, CTML provides not only a design framework for the instructional medium itself but also a cognitive explanation for the affective, interest-related outcomes that are the specific focus of the present study, complementing the more directly affect-oriented account offered by the Four-Phase Model of Interest Development discussed in the following subsection.

4. Interactive Multimedia in Education

Interactive multimedia refers to instructional content that integrates multiple modes of representation, such as text, images, audio, video, and animation, with

mechanisms that allow learners to actively manipulate, respond to, or navigate through the material rather than passively receiving it. Unlike traditional linear media, interactive multimedia positions the learner as an active participant, capable of making choices, receiving immediate feedback, and engaging in simulated or gamified tasks that closely mirror authentic communicative contexts.

Empirical evidence across various educational levels supports the effectiveness of interactive multimedia in enhancing student engagement and academic achievement. Aulia et al. (2024) emphasize that interactive learning media plays a substantial role in enhancing both student engagement and academic performance across diverse instructional contexts. Similarly, a broader literature review of interactive media applications in elementary science education found that formats such as interactive video and educational games improved students' conceptual understanding and motivation to learn, indicating that the benefits of interactive media are not confined to language instruction alone but extend across subject domains (Prayoga et al., 2025).

For young learners specifically, interactive multimedia aligns closely with their developmental characteristics, as children at this age tend to process new information most effectively through concrete, visually stimulating, and enjoyable experiences rather than abstract verbal explanation (Sudiantara et al., 2024). This developmental alignment provides a strong pedagogical rationale for the integration of interactive multimedia tools, such as Articulate Storyline 3, within primary school English instruction.

The degree of interactivity embedded within a given medium is not uniform; instructional technologists commonly distinguish between low-level interactivity, such as simply clicking to advance a slide, and higher-level interactivity, such as branching scenarios, drag-and-drop tasks, and simulations that require learners to make decisions and observe corresponding consequences. Higher levels of interactivity have been associated with deeper engagement, since they require learners to actively process and apply information rather than passively consume it, consistent with the behavioural, emotional, and cognitive dimensions of engagement described earlier (Fredricks et al., 2004; Nisa & Ansori, 2025). This

distinction is pedagogically significant for the present study, since Articulate Storyline 3 was deliberately configured to include higher-level interactive elements, namely branching quizzes and drag-and-drop vocabulary tasks, rather than a simple slide-advancing presentation.

Beyond individual engagement, interactive multimedia also supports the broader pedagogical shift from teacher-centred to student-centred instruction encouraged under Kurikulum Merdeka. Where conventional instruction positions the teacher as the primary source and transmitter of knowledge, interactive multimedia redistributes a portion of instructional agency to the learner, who navigates content, responds to prompts, and receives feedback at an individualized pace, even when the medium itself is projected to the whole class rather than accessed on individual devices. This partial redistribution of agency is one mechanism through which interactive multimedia is theorized to cultivate the kind of active, exploratory engagement that underlies the early phases of interest development discussed in the following section.

A further consideration in the design of interactive multimedia for young learners concerns the balance between novelty and cognitive load. While novel visual and auditory elements are effective in triggering situational interest, an excess of simultaneous stimuli, such as competing animations, background music, and on-screen text presented all at once, risks overwhelming learners' limited working memory capacity and can paradoxically reduce rather than enhance comprehension (Castro-Alonso & Sweller, 2021). Effective interactive multimedia design for elementary-aged learners therefore requires a deliberate sequencing of stimuli, introducing one interactive element at a time and pairing complementary channels, such as audio narration with corresponding visuals, rather than presenting all available features simultaneously. This principle directly informed the sequencing of the Articulate Storyline 3 module used in the present study, in which vocabulary presentation, contextual animation, and quiz-based practice were structured as discrete, sequential segments rather than a single, densely layered screen.

Taken together, the literature on interactive multimedia suggests that its instructional value derives not from technological novelty alone, but from the alignment between its interactive features and learners' cognitive and developmental characteristics. For fifth-grade English learners specifically, this implies that an effective medium should combine multisensory input, graduated levels of interactivity, and carefully sequenced content, precisely the design considerations that motivated the selection and configuration of Articulate Storyline 3 as the instructional medium for this study.

5. Articulate Storyline 3 as a Learning Medium

Articulate Storyline 3 is a computer-based authoring tool that enables educators and instructional designers to develop professional, interactive e-learning content without requiring extensive programming expertise. The software allows the integration of text, images, audio narration, video, and animation into a single cohesive module, which can subsequently be published and delivered through a variety of platforms, including offline projection, web browsers, or learning management systems.

Distinct features of Articulate Storyline 3 include scenario-based simulations, drag-and-drop activities, branching interactions, customizable interactive quizzes, and immediate feedback mechanisms, all of which have been shown to optimize dynamic, audio-visual-based digital learning experiences across various educational contexts (Adawiyah et al., 2024). In elementary education specifically, Articulate Storyline 3 has been employed to develop interactive learning media for a range of subjects, including Indonesian language (Adam & Mulyani, 2023), natural sciences (Idris et al., 2025; Nisa' & Yulianto, 2025), and speaking skills (Sudiantara et al., 2024), consistently demonstrating positive effects on learning interest, motivation, and academic outcomes.

From a technical standpoint, Articulate Storyline 3's appeal in the Indonesian elementary school context stems partly from its flexible publishing and deployment options. Once developed, a module can be published as a standalone executable file or HTML5 package that runs offline on a single laptop connected to

a classroom projector, without requiring an internet connection, individual student devices, or a learning management system. This deployment flexibility directly addresses one of the most commonly cited barriers to educational technology adoption in Indonesian primary schools, namely uneven digital infrastructure, and helps explain why the medium has been successfully implemented in a wide range of school settings, from well-resourced urban schools to schools with more limited facilities such as SDN Rancatungku 01.

Underlying the software's various interactive features is a broader instructional design logic of scenario-based and simulation-based learning, in which learners are placed within a structured narrative or task context, such as the “Balap Karung” themed scenarios used in the present study's media, rather than presented with decontextualized vocabulary lists. This design logic is intended to mirror authentic communicative situations, giving learners a concrete purpose for engaging with new vocabulary and grammatical structures, which in turn is theorized to support both comprehension and the affective engagement central to learning interest.

Compared with other widely used authoring tools, such as PowerPoint-based presentations or generic video content, Articulate Storyline 3 is distinguished by its branching logic, which allows the instructional sequence to adapt based on a learner's response, and by its built-in quiz engine, which automatically scores responses and provides tailored feedback without requiring manual intervention from the teacher during the lesson. These features reduce the burden on the teacher to manage feedback in real time, freeing attention for facilitating discussion and addressing individual student needs, a practical advantage particularly relevant in a single-teacher classroom setting such as the fifth-grade class at SDN Rancatungku 01.

It is also worth noting that the effectiveness of Articulate Storyline 3, like any instructional medium, is contingent on the quality of its instructional design rather than the software itself; a poorly designed module using this platform would not be expected to yield the same benefits documented in the studies reviewed above. Accordingly, the module developed for the present study was designed with

explicit reference to the theoretical principles discussed earlier in this chapter, namely the dual-channel and coherence principles of the Cognitive Theory of Multimedia Learning, and the triggered-to-maintained situational interest progression described in the Four-Phase Model of Interest Development, rather than being assembled solely on the basis of the software's available features.

For the present study, Articulate Storyline 3 was selected due to its capacity to combine multiple interactive mechanisms, namely audio narration, animated vocabulary scenarios, and interactive quizzes, within a single, teacher-operable module. Its compatibility with a single classroom projector, rather than requiring individual student devices, further makes it a practical and low-barrier solution for schools with limited digital infrastructure, such as SDN Rancatungku 01.

B. Previous Research

This section reviews several prior studies relevant to the use of Articulate Storyline and other interactive multimedia in educational settings, highlighting their methodologies, findings, and the positioning of the present study relative to this existing body of research.

1. Title: "Development of Interactive Learning Multimedia Based on Articulate Storyline 3 to Increase Student's Interest in Learning English"

Author: Adian Saputra, Sutrisni Andayani, and Marzuki Noor (2025)

Summary: This study developed interactive learning multimedia using Articulate Storyline 3 to increase junior high school students' interest in learning English, following a 4D development model consisting of define, design, develop, and disseminate stages. The research began with a needs analysis to identify learning problems, followed by content design aligned with the curriculum and learner characteristics, expert validation, and a limited classroom trial. Validation results indicated high feasibility according to media, evaluation, and material experts, along with strong practicality ratings, and the media was found to increase student interest by 77 percent. This study demonstrates the effectiveness of Articulate

Storyline 3 for secondary-level English learners, but it does not extend to the elementary school context, which is the specific focus of the present research.

2. Title: "The Influence of Using Articulate Storyline Media on Learning Interest and Results"

Author: Megawati Idris, Suwito Eko Pramono, and Arief Yulianto (2025)

Summary: Motivated by observations showing those lecture-based social studies lessons failed to attract fourth-grade students' interest, this quantitative study examined whether Articulate Storyline media influenced students' interest and learning outcomes among 30 fourth-grade students. Data were collected through questionnaires and tests and analyzed using descriptive and inferential statistical techniques. The findings showed that students' average scores increased after treatment, and inferential analysis confirmed that Articulate Storyline media significantly influenced both learning interest and learning outcomes. This study closely parallels the present research in terms of educational level and instructional medium, though it addressed a different subject domain, namely social studies, and did not report a standardized effect size such as Cohen's *d*.

3. Title: "Articulate Storyline as an Interactive Learning Medium: A Critical Literature Review"

Author: Haerul Syam, Tatik Retno Murniasih, Farman, and Fatqurhohman (2025)

Summary: This critical literature review examined the use of Articulate Storyline as an interactive learning medium increasingly adopted amid the digital transformation of education, analyzing its contribution to strengthening twenty-first-century skills and identifying its remaining challenges and future development directions. By synthesizing and evaluating research trends across previous studies, the review concluded that Articulate Storyline can improve learning motivation and cognitive effectiveness, and can support the development of critical thinking, creativity, and collaborative skills among students. As a literature review rather than an empirical study, this research provides broad theoretical support for Articulate Storyline's cross-contextual effectiveness but does not itself generate new quantitative evidence within a specific classroom setting.

4. Title: "Articulate Storyline 3 Interactive Media to Increase Learning Interest and Activeness of Fifth Grade Elementary School Students"

Author: Aida Fauziah Majid and Sekar Purbarini Kawuryana (2024)

Summary: Motivated by the observation that grade V learning material increasingly involves abstract concepts while students' interest and activeness in learning remained low, this study developed an interactive Articulate Storyline 3 medium using the Research and Development model proposed by Borg and Gall, encompassing ten development stages. The research involved 105 fifth-grade elementary school students, with data collected through interviews, observations, and questionnaires, and the product tested through initial, expanded, and operational field trials. The findings showed significant differences in learning interest and activeness between the experimental class that used the interactive media and the control class that did not, confirming that Articulate Storyline 3 met the criteria of feasibility and effectiveness for fifth-grade elementary instruction. This study closely parallels the present research in grade level, media, and dependent variable, though it addressed general classroom material rather than English specifically and employed a quasi-experimental, two-group design rather than a one-group pretest-posttest design.

5. Title: "The Development of Articulate Storyline Interactive Learning Media Based on Case Methods to Train Students' Problem-Solving Ability"

Author: Febblina Daryanes, Darmadi, Khusnul Fikri, Irda Sayuti, M. Arli Rusandi, and D.D.B. Situmorang (2023)

Summary: Published in Heliyon, this study developed an Articulate Storyline-based interactive learning medium incorporating case-method scenarios to train university students' problem-solving ability in a Basic Biology course. Product feasibility was evaluated through validation by media, material, and practicality experts, whose ratings, together with the subsequent trial results, indicated that the developed medium was highly feasible for classroom use and effective in enhancing students' problem-solving skills. The researchers recommended that lecturers adopt similar case-method-based Articulate Storyline media and suggested further testing in larger classes. This study demonstrates that Articulate Storyline's instructional benefits extend even to higher education and cognitively demanding skills such as

problem-solving, reinforcing the medium's cross-level versatility, although it did not examine learning interest as a variable nor involve elementary-aged learners.

6. Title: "Articulate Storyline Learning Media on Speed and Discharge Concepts for Elementary School"

Author: Salzhabila Ramadhanti, Dian Kusmaharti, and Via Yustitia (2024)

Summary: Prompted by fifth-grade students' low understanding of speed and discharge concepts in mathematics, which hindered their ability to solve story problems, this study developed an Articulate Storyline medium presenting the material in narrative form accompanied by triggering questions and interactive quizzes, for fifth-grade students at SDN Krian IV. Using a Research and Development approach based on the 4D model, the study was carried out through the Define, Design, and Development stages, with the Disseminate stage omitted due to time constraints. The resulting media was found to be a feasible and engaging alternative for teaching an abstract mathematical concept to fifth-grade learners. This study reinforces the appropriateness of Articulate Storyline for the same grade level examined in the present research, although it targeted mathematics rather than English and, being a developmental study limited to three 4D stages, did not empirically test the medium's effect through a pretest-posttest design.