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DESIGNING PUPPET-BASED ENGLISH LEARNING VIDEOS FOR FOURTH GRADERS: A NEEDS-DRIVEN DEVELOPMENT STUDY

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ABSTRACT

English learning at the elementary level requires engaging instructional media to support vocabulary and speaking development. However, the systematic integration of needs analysis into puppet-based video design remains underexplored in Indonesian EFL contexts. This study aimed to develop a puppet-based English learning video for fourth-grade students and to evaluate its validity and feasibility through expert judgment. The study employed a Research and Development (R&D) design based on the Analysis, Design, and Development phases of the ADDIE model. Data were collected from 20 fourth-grade students and two English teachers using questionnaires grounded in needs analysis principles. The findings revealed that students prioritized speaking skills (55%), experienced difficulties in vocabulary retention, and preferred video-based (65%) and puppet-assisted (85%) learning media. Based on these findings, a seven-minute puppet-based instructional video entitled "My Day with Kiko" was developed. The prototype was validated by one independent expert in English Education across content and media presentation aspects, achieving an overall mean score of 3.79 out of 4.00 (material: 4.00, media: 3.57), categorized as very valid and feasible. The study concludes that needs-driven instructional development can produce pedagogically appropriate multimedia resources for young EFL learners. Future research is recommended to examine its effectiveness through classroom implementation.

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INTRODUCTION

English language learning at the elementary school level plays a fundamental role in developing students' early language competence, particularly in the context of English as a Foreign Language (EFL). Young learners require engaging, meaningful, and developmentally appropriate learning environments that align with their cognitive characteristics. According to Cameron (2001), children acquire languages more effectively when learning activities are supported by contextualized input and visual media. Teaching English to children in primary schools has become increasingly common worldwide, with the critical period hypothesis suggesting that younger learners may have a biological advantage for language acquisition, though factors such as emotional, physical, and intellectual maturity must also be considered (Chang et al., 2011). Therefore, integrating appropriate instructional media is essential to support effective English learning at the primary level.

In the current educational context, digital and visual media have become increasingly

important in enhancing students' engagement and motivation. Video-based learning is widely recognized as an effective tool for facilitating language learning by providing visual context, authentic input, and repeated exposure. Recent studies indicate that multimodal input-combining visual and auditory elements-can significantly enhance young learners' comprehension and retention (Pu et al., 2025). Mayer's (2020) cognitive theory of multimedia learning emphasizes that human cognition involves separate channels for processing visual and verbal information; when both channels are activated simultaneously, learning outcomes improve. This theoretical foundation supports the development of video-based instructional media for young EFL learners.

Among various video formats, puppet-based learning videos hold particular promise for young learners. Puppetry offers an interactive and enjoyable approach to language learning, creating a playful, low-anxiety atmosphere that encourages students to speak (Prabhakaran & Yamat, 2017). Research shows that puppet media can improve vocabulary acquisition and speaking skills in meaningful contexts. Brilianti and Sugirin (2024) demonstrated that using puppet pictures as storytelling media significantly increased first-grade students' vocabulary scores from 57.86 in the pre-test to 88.57 in the post-test. Similarly, Aridasarie and Rohmah (2024) found that puppetry integrated with multimodal texts helped students gain confidence to speak in English while reinforcing creativity and fluency. The use of puppets also supports the development of language skills, particularly in helping elementary school students to express their thoughts and increase vocabulary in meaningful contexts (Tiara & Handayani, 2023).

Despite these advantages, previous studies have revealed that the implementation of engaging instructional media in elementary classrooms remains limited. Teachers often rely on conventional teaching methods, such as textbook-based instruction and verbal explanations, which may not effectively engage young learners (Sukmahidayanti, 2015). This lack of instructional media contributes to difficulties in vocabulary retention and pronunciation. Empirical findings from EFL contexts indicate that although students show strong preferences for interactive and visual learning media, such media are not consistently integrated into classroom practice (Kaban & Karadeniz, 2020). These findings highlight a clear discrepancy between students' learning preferences and the instructional approaches currently employed by teachers.

Although many studies have explored video-based learning and puppet media, most have focused on measuring learning outcomes rather than on the design process itself. While needs analysis has been applied to textbook development and general media selection, its systematic integration into puppet-based video design for Indonesian elementary EFL learners remains underexplored. This gap is particularly apparent in local Indonesian school contexts, where students' characteristics and learning environments may differ from those in larger-scale studies. A systematic, needs-driven development approach is necessary to ensure that instructional media are contextually relevant and address identified learning difficulties. The design of effective instructional media can be guided by needs analysis and learner-centered pedagogy. Hutchinson and Waters (1987) propose a framework consisting of needs (what learners must achieve), lacks (the gap between current and desired competence), and wants

(learners' perceived needs). Applying this framework ensures that instructional media are relevant and motivating for the target learners (Sukun et al., 2026).

To confirm whether the documented challenges apply in the local context, the researcher collected preliminary data from one public elementary school in Indonesia, involving two English teachers and 20 fourth-grade students. The findings revealed several key problems: students showed low engagement during English lessons using conventional methods; they had difficulty understanding and remembering vocabulary due to a lack of visual and contextual support; the teacher reported that students rarely practiced English outside the classroom, which contributed to rapid forgetting; and most students expressed a preference for learning through videos, animations, and interactive media. These observations align with prior research indicating that vocabulary and pronunciation are among the most common challenges faced by young EFL learners (Rohmatillah, 2014; Afzal, 2019). Current instructional practices therefore do not fully address students' learning needs.

Given this background, the present study aims to develop puppet-based English learning videos for fourth-grade students using a needs-driven approach integrated with the Analysis, Design, and Development phases of the ADDIE model (Branch, 2009). In addition, this study seeks to test the validity and feasibility of the developed product through expert judgment, involving material experts and media experts. It is important to note that this study is limited to the development phase; therefore, effectiveness testing-such as measuring learning outcomes-is not within its scope. To achieve these aims, the study addresses three research questions: (1) what are the English learning needs, wants, and lacks of fourth-grade students in vocabulary and speaking practice at a public elementary school in Indonesia; (2) how are puppet-based English learning videos designed based on the findings of the needs analysis; and (3) what is the validity and feasibility level of the developed puppet-based English learning video prototype as assessed by expert validators? By integrating Hutchinson and Waters' (1987) needs analysis framework with the Analysis, Design, and Development phases of ADDIE, and by explicitly validating the prototype through expert assessment, this study offers a replicable model for contextually grounded instructional video development in similar elementary school settings-an approach that has received limited attention in previous research on puppet-based media for young EFL learners in Indonesia.

METHOD

This study employed a Research and Development (R&D) design using the ADDIE model proposed by Robert Maribe Branch (2009), which consists of five stages: Analysis, Design, Development, Implementation, and Evaluation. The development process was needs-driven, as it was grounded in the results of a needs analysis conducted with students and teachers. The needs analysis adopted the framework of Tom Hutchinson and Alan Waters (1987), focusing on learners' necessities, lacks, and wants. This study was limited to the Analysis, Design, and Development stages. The Implementation and Evaluation stages, including large-scale effectiveness testing, were not conducted because the primary objective was to develop and validate a puppet-based English learning video prototype rather than to examine its instructional effectiveness in classroom settings. Product validation was conducted

through expert judgment to establish content validity and feasibility. This approach is consistent with development-oriented research that emphasizes prototype production and expert validation prior to field implementation.

The study was conducted in a public elementary school in Indonesia. Participants for the needs analysis phase were selected through purposive sampling to obtain relevant and information-rich data. The participants consisted of 20 fourth-grade students who had received formal English instruction and two English teachers. One teacher had six years of teaching experience in a public elementary school, while the other had three years of experience teaching in an international school setting. The inclusion of teachers from different institutional contexts was intended to provide complementary pedagogical perspectives and to enrich the design considerations of the developed media.

For the validation phase, one independent expert was involved. The expert was a lecturer in English Education with expertise in Teaching English to Young Learners (TEYL), curriculum development, and instructional material design. The selection of an English Education lecturer was intended to ensure that the instructional content was linguistically accurate, pedagogically appropriate, and aligned with curriculum standards. In addition, the expert evaluated the overall presentation aspects of the video, including clarity of audio, visual suitability, and instructional organization, to ensure that the developed prototype met appropriate pedagogical and practical quality standards.

Data were collected using three instruments: a student needs analysis questionnaire, a teacher needs analysis questionnaire, and expert validation sheets for both the material and media aspects. The student questionnaire consisted of closed-ended and open-ended items designed to explore students' experiences in learning English, perceived difficulties, preferred learning activities, media preferences, and expectations regarding puppet-based video learning. The teacher questionnaire gathered information about instructional objectives, language skill priorities, common student challenges, media usage in the classroom, and recommendations for video content and language focus. Both questionnaires were distributed through Google Forms over a two-week period, and all responses were anonymized to ensure confidentiality.

After the prototype video was developed based on the findings of the needs analysis, a validation sheet was distributed to one independent expert in English Education. The validation instrument consisted of two sections: (1) content and pedagogical aspects and (2) media and presentation aspects. Each section contained several indicators assessed using a four-point Likert scale ranging from 1 (strongly disagree) to 4 (strongly agree).The material validation focused on curriculum alignment, appropriateness of vocabulary and sentence structures, linguistic accuracy, clarity of instruction, suitability of the narrative for young learners, and the potential of the video to support vocabulary acquisition and speaking practice. The media validation focused on technical quality, including visual clarity, audio quality, design consistency, duration suitability, and the integration of text, audio, and visual elements based on multimedia learning principles. A four-point scale was used to avoid neutral responses and encourage clear evaluative judgments. In addition to quantitative ratings, both experts were invited to provide qualitative comments and suggestions for revision.

Quantitative data from the closed-ended questionnaire items were analyzed using descriptive statistics, specifically frequencies and percentages, to identify dominant learning

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preferences and common difficulties. Qualitative responses from open-ended questions were analyzed using thematic analysis to identify recurring themes related to students' needs and teachers' expectations. These findings were synthesized to formulate the design specifications of the puppet-based learning video. The data from expert validation were analyzed by calculating the mean score for each indicator and the overall mean score. The interpretation criteria were categorized as follows: 1.00–1.75 (not valid), 1.76–2.50 (less valid), 2.51–3.25 (valid), and 3.26–4.00 (very valid). The product was considered acceptable if the overall mean score reached at least 2.51, indicating that it met the criteria of validity and feasibility. Qualitative feedback from the experts was then used to revise and refine the prototype before finalization.

The design phase of the study involved synthesizing the needs analysis findings into a structured design specification, including learning objectives, vocabulary focus, language functions, narrative structure, and video duration. A storyboard was developed prior to production to ensure coherence between pedagogical goals and visual presentation. During the development phase, the puppet characters were designed according to students' preferences, and the script incorporated simple dialogues, repetition segments, and interactive prompts suitable for young learners. The final output of this study is a validated puppet-based English learning video prototype that is pedagogically sound and technically feasible for fourth-grade students.

FINDING AND DISCUSSION

A. Results of Needs Analysis

The needs analysis was conducted to identify the English learning needs, lacks, and wants of fourth-grade students, as well as the perspectives of their teachers. Data were collected from 20 fourth-grade students and two English teachers using structured questionnaires. The findings are presented below according to the three dimensions of Hutchinson and Waters' (1987) needs analysis framework: necessities, lacks, and wants, followed by teachers' perspectives.

1. Student Questionnaire Results

a. Necessities: What Students Must Achieve

Necessities refer to what learners must achieve based on the demands of the target learning situation. In the context of fourth-grade English instruction in Indonesian elementary schools, students are expected to develop basic communicative competence, particularly in vocabulary recognition, listening comprehension, and simple speaking skills.

Students were first asked about the skills they most needed to improve. Table 1 presents the distribution.

Table 1. Skills Needing Improvement

Skill	Frequency	Percentage
Speaking	11	55%
Listening	4	20%
Vocabulary	3	15%

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Writing	1	5%
Reading	1	5%

Speaking was identified as the primary skill needing improvement (55%), followed by listening (20%) and vocabulary (15%). This indicates that oral communication and vocabulary mastery are central learning necessities for the students.

In terms of background, most students (75%) had studied English for more than two years and all considered English either "very important" (65%) or "important" (35%). This positive orientation suggests that students are receptive to instructional interventions designed to improve their speaking and vocabulary competence.

b. Lacks: The Gap Between Current and Desired Competence

Lacks represent the gap between students' current competence and the desired learning outcomes. Identifying lacks helps determine what instructional content must be prioritized. In this study, lacks were explored through students' self-reported difficulties and the challenges observed by teachers.

Students reported specific difficulties in English learning. Table 2 summarizes the most challenging aspects.

Table 2. Perceived Learning Difficulties

Difficulty	Frequency	Percentage
Speaking in English	5	25%
Pronouncing words correctly	4	20%
Understanding new vocabulary	4	20%
Understanding listening	3	15%
Writing in English	2	10%
Grammar	1	5%

The main difficulties reported were speaking (25%), pronunciation (20%), and understanding new vocabulary (20%). These findings indicate that students struggle with vocabulary retention, pronunciation accuracy, and oral production. When asked why they struggled, the most frequent themes were "forgetting easily," "boring lessons," and "shyness to speak." These responses suggest both cognitive and affective barriers in vocabulary acquisition and speaking practice.

Students' help-seeking behaviors further illuminate their lacks. Table 3 shows how students respond when facing difficulties.

Table 3. Help-Seeking Behaviors

Action	Frequency	Percentage
Ask the teacher	12	60%
Search for videos on the internet	6	30%
Ask friends	1	5%
Remain silent	1	5%

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While most students (60%) ask the teacher for help, a substantial proportion (30%) independently search for videos online. This indicates that students already rely on visual media to support their learning, reinforcing the potential of video-based instructional materials.

c. Wants: Students' Preferences for Media and Content

Wants refer to learners' subjective preferences and expectations regarding the characteristics of instructional media and content. Understanding wants is essential for designing materials that are not only pedagogically sound but also motivating and engaging. In this study, wants were explored through questions about preferred topics, media preferences, puppet characteristics, video duration, and learning activities.

Students' preferred learning methods are shown in Table 4.

Table 4. Preferred Learning Methods

Method	Frequency	Percentage
Watching videos	13	65%
Playing games	5	25%
Listening to teacher's explanation	1	5%
Reading storybooks	1	5%
Singing	0	0%

Students showed a strong preference for video-based learning (65%), indicating the need for visually engaging instructional media.

Regarding content topics, students selected the themes they found most useful (Table 5).

Table 5. Preferred Learning Topics

Topic	Frequency	Percentage	Topic
Daily activities	7		35%
Stories or fairy tales	6		30%
Describing people or things	5		25%
Objects at school or home	1		5%
Greetings and introductions	1		5%
Numbers and time	0		0%

Students preferred contextual and story-based topics that allow practical vocabulary use, with daily activities (35%) and stories (30%) being the most popular.

Crucially, students' interest in puppet-based learning videos was very high. Table 6 presents the results.

Table 6. Interest in Puppet-Based Videos

Interest Level	Frequency	Percentage
Very interested	6	30%
Interested	11	55%
Not interested	3	15%

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The majority of students (85%) expressed interest in puppet-based videos, supporting the choice of puppetry as an instructional medium.

When asked about the type of puppet characters they preferred, 40% chose cartoon-style puppets and 40% chose animal puppets (Table 7).

Table 7. Preferred Puppet Character Types

Character Type	Frequency	Percentage
Cartoon-style puppet	8	40%
Animal puppet	8	40%
Human puppet	1	5%
No preference	3	15%

Regarding video duration, students favored short videos (Table 8).

Table 8. Ideal Video Duration

Duration	Frequency	Percentage
5–10 minutes	11	55%
Less than 5 minutes	5	25%
More than 15 minutes	4	20%

Most students (55%) preferred videos lasting 5–10 minutes, which aligns with attention span research for young learners.

Finally, students' preferred classroom activities within video-based learning are shown in Table 9.

Table 9. Preferred Classroom Activities

Activity	Frequency	Percentage
Watching stories	9	45%
Role-playing with friends	6	30%
Repeating words after teacher	4	20%
Answering questions	1	5%

Students enjoyed both passive observation (watching stories, 45%) and active participation (role-playing, 30%; repetition, 20%). This combination can be accommodated by puppet-based videos that model dialogues and invite imitation.

2. Teacher's Questionnaire Results

Two English teachers participated: one from a public elementary school (IM) and one from an international school (YA). The public school teacher's responses are prioritized because the target context is public elementary education, while the international school teacher's insights inform design quality.

The public school teacher, with six years of experience, identified vocabulary and speaking as the skills most in need of improvement. This directly corroborates the students'

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self-reported lacks. She had used video (songs and cartoons) and puppets before, and she affirmed that puppet-based videos have strong potential because "children can interact directly." She recommended that videos be clear, simple, and focus on describing people or things with the language function of description.

The international school teacher noted that ordinary puppets might be perceived as childish for upper elementary students. However, she noted that unique puppets with interesting voices and engaging content could successfully capture attention. She advised that visuals be up-to-date and appealing. These suggestions were incorporated into the design phase to ensure age-appropriateness and visual quality.

Table 10. Synthesis of Teacher Recommendations for Video Design

Design Aspect	Public School Teacher (Target Context)	International School Teacher (Quality Input)	Final Design Decision
Language focus	Vocabulary, speaking, describing people/things	Speaking, grammar, describing situations	Prioritize vocabulary and descriptive language; introduce simple grammatical structures naturally within dialogues
Puppet type	Not specified but supports puppets; children can "interact directly"	Avoid "babyish" basic puppets; use unique characters with interesting voices	Cartoon-style or animal puppets (per student preference) with expressive, age-appropriate voices
Video characteristics	Clear, simple, easy to understand	Visually up-to-date, contemporary, appealing	Simple yet visually engaging design; avoid clutter; use current animation styles
Pedagogical approach	Repetition and clarity; focus on description	Interactive, informative, with follow-up tasks	Include repetition segments (choral repetition) and prompts for teacher-facilitated interaction

a. Design of the Puppet-Based English Learning Video

Based on the needs analysis findings presented in Section 4.1.1, a puppet-based English learning video entitled "My Day with Kiko" was designed and developed. The product is a digital video (MP4 format) featuring a single animated puppet character, Kiko. The video targets fourth-grade students (adaptable for grade 5) with an approximate duration of seven minutes, focusing on vocabulary related to daily activities, speaking practice, and basic comparative language.

b. Integration of Needs Analysis into Design

Every design decision was directly informed by the empirical needs data. The high student interest in puppet-based videos (85%) justified the creation of a single engaging character. The strong preference for video-based learning (65%) guided the fully animated visual style. To address the 60% of students who wanted to improve speaking, the video

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incorporates echo practice segments, interactive speaking prompts, and pop-up quizzes requiring oral responses. For the 25% who struggle with pronunciation, Kiko models each word twice with clear enunciation, supported by on-screen subtitles. The pervasive problem of forgetting (40%) was tackled through multiple repetitions of vocabulary across pre-, while-, and post-activities, reinforced by three pop-up quizzes. Boredom (reported by 20%) was counteracted with fast pacing, sound effects, countdown timers, and energetic voice delivery.

The national school teacher's call for simplicity and clarity was met through basic vocabulary selection (six daily activities) and clear repetition segments, while the international school teacher's demand for modern, unique content was addressed through Kiko's contemporary design and an optional comparative language segment ("better than"). Finally, the lack of home practice-identified by both students and teachers-was mitigated by a post-activity drawing and speaking task to be completed with family.

Video Structure: Pre-, While-, and Post-Activity

The video follows a three-stage pedagogical structure aligned with Cameron's (2001) framework for young learners: pre-activity (preparation), while-activity (core instruction), and post-activity (consolidation and extension).

Pre-Activity

The video opens with Kiko sliding onto a bright background, waving, and greeting the audience with "*Hello, friends! I'm Kiko! How are you today?"* This friendly opening is designed to lower the affective filter (Krashen, 1982). Kiko then activates prior knowledge by asking, *"What do you do in the morning?"* followed by a three-second pause for students to think. Learning objectives are presented on screen as Kiko states, *"Today we will learn to talk about our daily activities and practice comparing using 'better than'."*

Six vocabulary cards appear sequentially-*wake up, take a bath, eat breakfast, go to school, play with friends, read a book*—each with an icon and subtitle. Kiko says each word twice, leaving a two-second pause for repetition. This segment introduces all target vocabulary with built-in repetition to address the forgetting problem identified in the lacks analysis.

While-Activity

The core instructional segment begins with an animated storytelling scene showing Kiko's morning routine: waking at six o'clock, taking a bath, eating breakfast with family, and going to school. The narrative continues into the afternoon with lunch, playing with friends, and reading a book. This contextualized input provides meaningful language use (Cameron, 2001).

After the story, Kiko faces the camera for echo practice: *"Now it's your turn! Repeat after me: I wake up at six o'clock. I take a bath. I eat breakfast with my family. I go to school at seven o'clock."* This directly targets the 60% of students who identified speaking as their priority skill.

Three pop-up quizzes are interspersed to reinforce retention and maintain engagement. The first quiz presents an icon *(e.g., eating breakfast)* with three written options; students have five seconds to point or say the answer. Kiko then confirms the correct answer. The second quiz

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introduces comparative language: two icons appear (play with friends, read a book) and students are prompted to say, *"I like ... better than ..."* This segment responds to the international school teacher's recommendation for comparative language while remaining optional for beginners. The third quiz is an open speaking challenge: "*Make a sentence with 'I ...' and one activity."* Each quiz is accompanied by sound effects (a "ding" for correct answers) and a cheerful countdown.

A rapid vocabulary recap follows, with icons flashing and Kiko leading choral repetition of all six words. This repetition cycle directly addresses the 40% forgetting rate identified in the needs analysis.

Post-Activity

The video concludes with a summary screen showing all six activity icons with checkmarks as Kiko recaps the learning objectives. A follow-up task is then displayed: *"Draw your daily routine and tell a friend about it!"* An example drawing is shown. Kiko encourages students to use the learned vocabulary and to say which activity they like best. This task directly responds to the teacher's observation that students rarely practice English at home. The video ends with Kiko waving energetically as stars appear, saying, *"You did an amazing job! Keep practicing and I'll see you next time. Bye-bye!"* followed by cheerful credits music.

Differentiation for Learner Levels

The video is designed to be adaptable. For national school students (beginner level), teachers may pause after the pre-activity vocabulary section and focus only on the six daily activities, optionally skipping the comparative language segment. For international school students (more advanced), teachers can emphasize the comparative language section and encourage students to create additional comparison sentences. This flexibility responds to the differing contexts of the two teachers who participated in the needs analysis.

Product Output

The final product is an MP4 video file titled "My Day with Kiko" with a total runtime of seven minutes. Screenshots of the video are presented in Figures 1–4 to illustrate the character design, vocabulary display, quiz interactions, and closing scene. The full video can be accessed at: *https://youtu.be/UYtD8_vBbRY*

Figure	Stage	Content
Figure 1. 	Pre-activity	Kiko greeting, learning objectives, vocabulary preview (wake up, take a bath, eat breakfast and go to school)

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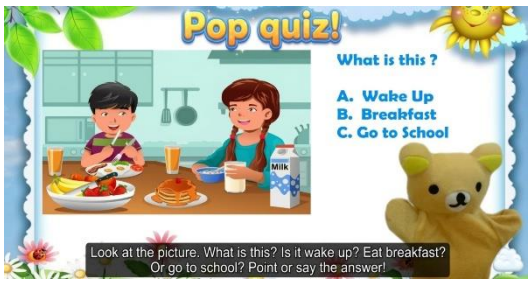
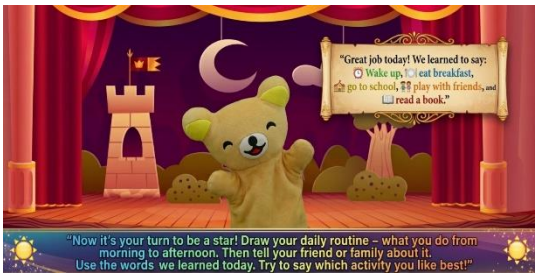
Figure 2 	While-activity	Echo practice: Kiko modeling sentences with repetition prompts
Figure 3 	While-activity	Pop-up quiz: visual prompt with multiple-choice question
Figure 4 	Post-activity	Vocabulary recap + follow-up drawing and speaking task for home

c. Expert Validation Results

After the development of the puppet-based English learning video "My Day with Kiko," the prototype was submitted to an expert validator for assessment. The validator was a lecturer in English Education with expertise in Teaching English to Young Learners (TEYL), curriculum development, and instructional material design. The validation aimed to assess the pedagogical quality, linguistic accuracy, curriculum alignment, and technical feasibility of the video. The expert evaluated the product using a four-point Likert scale (4 = Strongly Agree/Very Good, 3 = Agree/Good, 2 = Disagree/Less Good, 1 = Strongly Disagree/Poor). The interpretation criteria were as follows: 1.00–1.75 (not valid), 1.76–2.50 (less valid), 2.51–3.25 (valid), and 3.26–4.00 (very valid). The product was considered acceptable if the overall mean score reached at least 2.51. Qualitative comments and suggestions were also collected to guide revisions.

Content and Pedagogical Validation Results

The material validation focused on six indicators: curriculum alignment, appropriateness of vocabulary and sentence structures, linguistic accuracy, suitability of the puppet narrative for

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young learners, potential to support vocabulary acquisition and speaking confidence, and logical sequence of material presentation. Table 11 presents the scores.

Table 11. Content and Pedagogical Validation Results

No.	Indicator	Score (1–4)
1	The learning objectives are clearly stated and aligned with the curriculum.	4
2	The vocabulary and sentence structures are appropriate for fourth-grade EFL learners.	4
3	The content is accurate (no factual or linguistic errors).	4
4	The puppet narrative is suitable for young learners' cognitive development.	4
5	The video is designed to support vocabulary learning and speaking practice.	4
6	The material is presented in a logical and easy-to-follow sequence.	4
	Mean Score	**4.00**

As shown in Table 11, the expert assigned the highest score (4) to all six indicators, resulting in a mean score of 4.00, which falls into the very valid category. This indicates that the material aspect of the video is excellent, with clear learning objectives, age-appropriate vocabulary and sentence structures, accurate content, a suitable narrative, strong potential for vocabulary and speaking development, and a logical sequence.

Media and Presentation Validation Results

The media validation focused on seven indicators: video resolution and visual clarity, audio clarity and balance, puppet character design, visual appeal (color scheme, background, typography), duration suitability, integration of text/audio/visual elements following multimedia principles, and ease of navigation. Table 12 presents the scores.

Table 12. Media and Presentation Validation Results

No.	Indicator	Score (1–4)
1	The video resolution and visual clarity are good.	4
2	The audio (narration, sound effects, background music) is clear and balanced.	3
3	The puppet character design is engaging and appropriate for children.	4
4	The color scheme, background, and typography are visually appealing.	3

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5	The video duration is suitable for young learners' attention span (5–10 minutes).	4
6	The integration of text, audio, and visual elements follows multimedia learning principles.	3
7	The video is easy to navigate (clear start, pause, replay functions).	4
	Mean Score	**3.57**

The expert assigned a mean score of 3.57, falling into the very valid category. The highest scores (4) were given to visual clarity, puppet character design, duration suitability, and navigation. Slightly lower scores (3) were assigned to audio balance, visual appeal (color scheme and typography), and integration of multimedia elements, indicating room for minor improvement.

Qualitative Feedback and Revisions

The expert noted strengths: the puppet character is engaging, the material is simple and clear, and the video supports vocabulary and speaking. Suggestions for improvement included: (1) reducing background music volume, (2) adding explicit response time indicators (e.g., a 5-second countdown timer for quizzes), and (3) adding conversation scenes between puppets.

Based on this feedback, the following revisions were made: background music volume was lowered and removed during echo practice; a 5-second countdown timer graphic was added to each pop-up quiz; and a short simulated dialogue was added between Kiko and an off-screen voice.

DISCUSSION

This section discusses the findings of the needs analysis, the design of the puppet-based learning video, and the expert validation results in relation to the research questions and theoretical frameworks. The discussion is organized into three main parts corresponding to the three research questions: (1) learners' needs, lacks, and wants; (2) the design of the puppet-based video; and (3) the validity and feasibility of the developed prototype.

1. Learners' Needs, Lacks, and Wants for Vocabulary and Speaking Practice

The needs analysis indicates that speaking and vocabulary development are the most critical areas for fourth-grade EFL learners. Students experience particular difficulties in pronunciation and vocabulary retention, which suggests that their challenges are not only related to linguistic knowledge but also to procedural fluency in using English orally. These findings are consistent with earlier research in Indonesian EFL contexts that identifies vocabulary acquisition and pronunciation as persistent obstacles for young learners (Rohmatillah, 2014; Afzal, 2019).

A key issue emerging from the data is the phenomenon of rapid forgetting, which reflects insufficient reinforcement and limited meaningful exposure to language input. This aligns with Mayer's Cognitive Theory of Multimedia Learning (2020), which emphasizes that retention improves when learners process information through both visual and auditory channels in an integrated manner. In contrast, conventional instruction that relies heavily on verbal explanation may fail to support long-term retention due to limited multimodal engagement.

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In addition to cognitive challenges, affective factors also play an important role. Students' hesitation to speak and tendency toward boredom indicate the presence of psychological barriers that inhibit active language use. This finding supports Krashen's (1982) Affective Filter Hypothesis, which argues that anxiety and low motivation reduce learners' ability to internalize input. Therefore, instructional design for this context must address both cognitive load and emotional engagement simultaneously.

Another important finding is students' preference for video-based learning and their tendency to independently search for online videos when facing difficulties. This behavior suggests a shift toward autonomous, visually supported learning strategies, even in contexts where classroom instruction remains traditional. Kaban and Karadeniz (2020). similarly notes that learners often prefer multimodal and interactive input, but such preferences are not consistently reflected in classroom practices. This mismatch highlights a pedagogical gap between learners' expectations and instructional reality.

Overall, learners' wants indicate a strong preference for narrative-based and visually rich learning experiences, particularly those involving interactive elements and short-duration content. This is consistent with Scott and Ytreberg (1990), who emphasize that young learners benefit from short, engaging, and visually supported input due to their limited attention span. Importantly, these preferences are not merely superficial choices but reflect deeper cognitive and affective needs for meaningful and manageable input.

2. Design of the Puppet-Based Video Informed by Needs Analysis

The design of "My Day with Kiko" directly operationalized the needs analysis findings. The choice of a single bear puppet with a modern, vinyl-collectible aesthetic responded to the international school teacher's warning against "babyish" designs while also addressing students' preference for cartoon-style (40%) and animal puppets (40%). The video's three-stage structure (pre-, while-, post-activity) follows Cameron's (2001) framework for young learner instruction, ensuring that vocabulary is introduced, practiced, and consolidated systematically.

The integration of echo practice segments and pop-up quizzes directly targets the 60% of students who prioritized speaking and the 25% who struggled with pronunciation. This design choice is supported by Mayer's (2020) multimedia principle that combining narration with on-screen text and visuals reduces cognitive load and enhances retention. The use of repetition across stages-vocabulary introduced in pre-activity, modeled in storytelling, practiced in echo segments, and reinforced in quizzes-addresses the 45% forgetting problem. Each vocabulary item is repeated at least four times in different modalities (visual, auditory, written), which Montero Perez et al. (2014) found to significantly improve vocabulary acquisition.

The inclusion of an optional comparative language segment ("better than") provides differentiation for mixed-ability classrooms, responding to the two teachers' different contexts. This flexibility acknowledges Nation and Macalister's (2010) argument that effective instructional materials must accommodate learner diversity. The post-activity drawing and speaking task directly addresses the teacher's observation that students rarely practice English at home, extending learning beyond the classroom.

3. Validity and Feasibility of the Developed Prototype

The expert validation results demonstrated that the video prototype is very valid overall (mean score 3.79 out of 4.00). The material expert gave a perfect score (4.00), confirming that

the content is linguistically accurate, age-appropriate, and aligned with the curriculum. This supports the effectiveness of the needs-driven approach in producing pedagogically sound materials (Hutchinson & Waters, 1987).

The media expert's slightly lower scores (3.57) on audio balance, visual appeal, and multimedia integration indicate areas for refinement. The suggestion to add explicit response time indicators (countdown timers) is consistent with cognitive load theory, as clear time cues reduce uncertainty and allow learners to focus on content rather than timing (Mayer, 2020). The recommendation to reduce background music volume during narration aligns with the principle that extraneous sounds can overload auditory processing channels.

The expert's overall conclusion that the video is "valid/feasible with minor revisions" confirms that the prototype meets the criteria for classroom implementation. This finding is significant because most previous puppet-based media studies (e.g., Brilianti & Sugirin, 2024; Aridasarie & Rohmah, 2024) focused on learning outcomes after implementation, not on systematic design validation. By establishing content validity through expert judgment, this study provides a replicable model for needs-driven instructional video development.

CONCLUSIONS

The study explored the English learning needs, lacks, and wants of fourth-grade students. The findings indicate that speaking and vocabulary are the most critical areas that require improvement. Students experience difficulties in pronunciation, vocabulary retention, and oral production, which are influenced by both cognitive factors (limited exposure and insufficient repetition) and affective factors (shyness and low confidence). In addition, students show a strong preference for video-based and visually supported learning, particularly content that is short, contextual, and engaging. These results confirm that there is a clear gap between students' current learning experiences and their expected learning preferences, which supports the need for more interactive and multimedia-based instructional materials.

The development of "My Day with Kiko" demonstrates that instructional design decisions were systematically derived from learner data and teacher input using the ADDIE framework (Analysis, Design, Development). The video integrates vocabulary repetition, echo speaking practice, storytelling, and interactive quizzes to address students' difficulties in speaking and vocabulary retention. The use of a modern puppet character, combined with a three-stage learning structure (pre-, while-, and post-activity), ensures both cognitive support and learner engagement. Moreover, the inclusion of differentiated activities and home-based tasks reflects an attempt to accommodate learner variability and extend learning beyond the classroom context.

The results of expert validation indicate that the developed puppet-based video is categorized as very valid and feasible for classroom use, with an overall mean score of 3.79 out of 4.00 based on the aggregated results of the material and media expert evaluations. The material aspect obtained a perfect score, reflecting strong alignment with curriculum objectives, linguistic accuracy, and suitability for young learners. The media aspect was also categorized as very valid; however, minor revisions were suggested in relation to audio balance, visual clarity, and interaction timing. After revision, the prototype fulfilled the criteria for instructional implementation. Therefore, it can be concluded that the puppet-based English learning video is valid, feasible, and appropriate for use as a supplementary learning medium in fourth-grade EFL classrooms.

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Suggestions

It is recommended that future researchers continue this study by conducting the implementation and evaluation stages through field testing in real classroom settings. Since this study was limited to the development and expert validation phases of the ADDIE model, classroom implementation is necessary to examine the effectiveness of the video "My Day with Kiko" in improving students' vocabulary acquisition, speaking confidence, and learning motivation. Through direct application, researchers can observe students' participation, responses, and learning progress when the video is integrated into speaking activities.

Furthermore, future studies are encouraged to involve a larger number of participants and employ more rigorous research designs, such as experimental or quasi-experimental methods, to obtain more reliable and generalizable findings. Additional evaluation may also focus on enhancing the media's technical and interactive aspects to ensure greater effectiveness and adaptability across different classroom contexts.

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