



Castledown

 OPEN ACCESS

Language Education & Assessment

ISSN 2209-3591

<https://www.castledown.com/journals/lea/>

Language Education & Assessment, 9, 105205 (2026)

<https://doi.org/10.29140/lea.2026.105205>

Leveraging Task-Based Digital Storybooks on Junior Secondary School EFL Students' Listening and Reading Skills: Investigating Their Effects and Students' Perceptions



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Abstract

Previous studies have highlighted the role of digital storybooks in language learning; yet, how to integrate them with task-based language teaching to simultaneously target specific listening and reading skills remains unclear. This study addressed this gap by investigating the effectiveness of task-based digital storybooks in enhancing EFL students' listening and reading skills. Using a sequential explanatory mixed-methods design, the study employed pretests and posttests to measure students' receptive skills, followed by an investigation of the students' perceptions of the learning process. Quantitative data were analysed using multivariate tests, while thematic analysis was used to examine the qualitative data. The results indicate a significant difference in students' listening and reading skills scores between the experimental and control classes. However, based on the effect size test, the influence of task-based digital storybooks on students' listening and reading skills is classified as moderate. The interview results showed that involvement in authentic task-based learning, collaborative interaction and negotiation of meaning, support and formative feedback, and repetitive tasks are factors that make students feel that task-based digital storybooks help them improve their listening

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Data Availability Statement: All relevant data are within this paper.

and reading skills. The findings highlighted the potential of task-based digital storybooks for English language teaching in diverse educational contexts.

Keywords: Digital storybooks, receptive skills, task-based digital storybooks, task-based language teaching, technology-mediated task-based language teaching.

Introduction

Task-based language teaching (TBLT) is a foreign language teaching approach that focuses on having students use authentic language to complete contextualized tasks that are familiar and meaningful to students (Rod Ellis, 2009; Nunan, 2004). It has been widely adopted in English language teaching, primarily focusing on productive skills, such as speaking, writing, and general communicative competence (Belda-Medina, 2021; Jahan & Shakir, 2022; Kolsut & Szumilas, 2023). Many studies have begun looking at the integration of technology into TBLT, also known as technology-mediated task-based language teaching (TMTBLT) (Vinh Le & Ziegler, 2025). They generally find that TMTBLT enhances active learning, engagement, and communicative competence, and supports collaborative learning (Nguyen & Jaspert, 2021; Vellanki & Bandu, 2021). Several examples of popular tools in TMTBLT include digital storytelling (Shokhayev et al., 2023), digital stories (Karimova et al., 2023), AR storybooks (Yang et al., 2025), and digital books as learning materials (Bus et al., 2026; Ozbay & Ugurelli, 2023), all of which have been adopted to enhance students' language development.

Among these, digital storybooks – relatively new multimedia learning tools that combine text, audio narration, images, animations, and interactive elements such as clickable words or phrases, interactive quizzes or activities, highlighting texts, sound effects, and background music – hold especially great promise in language teaching and have potential as a TMTBLT medium. Specifically, studies have suggested that digital storybooks can help aid comprehension and vocabulary learning (Son & Butcher, 2024), language and narrative skills (Cordes et al., 2023), pronunciation (Son et al., 2020), cognitive and emotional development (Namaziandost et al., 2026), literacy skills (Anand, 2020), and communicative competence (Maureen et al., 2022).

When digital storybooks are used with TBLT, it is referred to as task-based digital storybooks (henceforth TBDSB), and this combination can further promote students' receptive skills because the TMTBLT activities can enhance students' ability to use the language in real-world communication, while digital storybooks' engaging content can support comprehension and retention. In other words, TBDSB is not merely a digital storybook or a learning medium, but an instructional framework in which digital storybooks are systematically implemented through the three-phase TBLT cycle (pre-task, during-task, and post-task), incorporating collaborative tasks, guided interaction, and formative assessment to facilitate receptive language development. Few studies have yet focused on how TBDSB can promote students' listening and reading skills. Therefore, this study seeks to contribute to the existing body of knowledge by examining how students improve their receptive skills when learning through TBDSB, compared with other methods, and by investigating their perceptions of TBDSB themselves.

Literature Review

Task-Based Language Teaching (TBLT)

TBLT is a language learning approach that takes task completion as the centre of the learning process as opposed to isolated grammar or vocabulary exercises (Ellis, 2024). In this approach, a task

is a communicative activity that requires students to use the target language to achieve specific goals in ways that reflect real-life use (Ellis, 2024). Task completion helps students develop language competence naturally through problem-solving, information sharing, and decision-making (Hashemi et al., 2012; Shukurova, 2024). In this approach, the teacher is a facilitator and guide in the task-completion process, rather than the primary provider of material, as in traditional learning approaches (Ellis, 2018).

TBLT is usually done in three main stages: pre-task, while-task, and post-task (Hashemi et al., 2012). The pre-task stage is intended to activate students' prior knowledge. During the while-task stage, students are encouraged to do tasks independently and cooperatively with others. Finally, the post-task stage gives students the opportunity to reflect on the learning process and receive feedback. This learning design is based on authentic language use, interaction among students, and negotiation of meaning, which are critical factors in developing language competence (Bygate, 2016; Granena & Yilmaz, 2021).

Numerous studies have shown that TBLT positively impacts communicative competence, motivation to learn, student engagement, and overall language proficiency by providing an authentic learning context oriented toward real-world language use (Chunliu & Guangsheng, 2025; Ellis et al., 2019). TBLT encourages active participation in meaningful communicative tasks and prompts learners to collaborate, negotiate meaning, and become more involved in the language (Pérez et al., 2024; Sudatha et al., 2024). These learning processes have been shown to promote the development of receptive skills, especially listening and reading skills, by enabling learners to interpret real spoken input and generate meaning through top-down and bottom-up processing in the context of collaborative tasks (Adjei-Mensah et al., 2023; Blancaflor et al., 2021). In addition, task-based instruction has been found to enhance learners' reading self-efficacy and to cultivate the cognitive and conative aspects of their reading attitude (Wordofa et al., 2026).

It has been proven that TBLT can enhance learners' motivation and communicative competence through authentic and meaningful tasks (Chunliu & Guangsheng, 2025; Ellis et al., 2019). However, in many learning contexts, TBLT implementation is still dominated by conventional media such as printed worksheets, textbooks, and face-to-face activities that limit language input to isolated text or audio.

Technology-Mediated Task-Based Language Teaching (TMTBLT)

TMTBLT is a form of learning that preserves the fundamental principles of TBLT but employs digital technology to design, implement, and support the completion of communicative tasks (Baralt & Gómez, 2017; Smith & González-Lloret, 2021). Technology in TMTBLT is not used to replace the role of the task but to enable learners to participate in more authentic, contextual, and collaborative activities in the target language through various digital platforms (Kim & Namkung, 2024; Morgana, 2023). Digital tools such as online learning platforms, interactive videos, artificial intelligence, virtual reality, and other multimedia allow learners to engage with richer language and make learning more authentic (Khezrlou, 2025; Nojournian, 2025). This technology can also enhance interaction and collaboration among students through online discussions across different tools and platforms, a key feature of TBLT (Jeong, 2018; Vinh Le & Ziegler, 2025). However, the effectiveness of TMTBLT depends not only on technology use but also on the appropriateness of the technology, task characteristics, and language learning objectives (Baralt & Gómez, 2017; Smith & González-Lloret, 2021). TMTBLT uses many digital media types, including the digital storybook, which combines text, illustrations, audio narration, and interactive elements into a single learning medium.

Digital Storytelling

Digital storytelling is a type of multimedia that uses stories, along with text, images, audio, video, music, animation, and other visual media to tell stories in an engaging and meaningful way

(Davis & Foley, 2015; Hunt et al., 2026). Digital storytelling in education is not only a medium for conveying information but also a learning tool that, through digital technology, promotes active participation, creativity, and knowledge sharing among students (Rahiem, 2021; Vivitsou et al., 2017). The combination of text, illustrations, audio narration, video, and animation enables students to encounter language in multiple representations simultaneously, providing a richer, more engaging, contextual, and comprehensible language experience (Alexander, 2011; Miller, 2014). The multimedia features of digital storybooks not only improve engagement and motivation to learn but also foster student-centred learning by providing opportunities to explore story content, stimulate creativity, and develop critical thinking skills (Pardo, 2014; Vivitsou et al., 2017). In addition, digital storytelling provides a more authentic communicative context for students to connect language use to realistic situations and develop cross-cultural understanding through the story (Benmayor, 2008; Rahiem, 2021).

Task-Based Digital Storybooks (TBDSB)

TBDSB is a learning approach that combines the principles of TBLT with the features of digital storybooks as a technology-based learning medium. The conceptual underpinnings of TBDSB are four key, complementary components. First, multimodal input provides information by integrating text, illustrations, audio narration, animation, and interactive features, facilitating students' more holistic understanding of the story (Son & Butcher, 2024). The TBDSB used in this study offers audio, animation, and interactive features to help students better understand the story. Second, authentic tasks require students to use language to achieve specific communicative goals, focusing learning on meaning rather than just practising language forms (Morgana, 2023). Authentic tasks in the TBDSB included answering comprehension questions, identifying important information, summarising the story's content, solving problems, and engaging in collaborative discussions based on the story's content. Third, collaborative interaction allows students to discuss, exchange information, and build a common understanding through story-based assignments (Alonso-Campuzano et al., 2025). Fourth, scaffolding is temporary support that helps students connect their prior knowledge to new skills or knowledge so they can understand them (Sanders & Welk, 2005). In TBDSB, scaffolding is accomplished through digital features such as audio narration, vocabulary definitions, illustrations, comprehension questions, and teacher guidance to help students complete assignments at their ability level.

Receptive Skills

Receptive skills are the ability to understand and make meaning from language that is received through the two major skills of listening and reading. These two skills lay the foundation for language acquisition by enabling learners to acquire information, construct knowledge, and develop more complex language skills. According to Karakoc (2022), there are two perspectives to understand receptive skills. The modality-unspecific view holds that the cognitive processes involved in listening and reading are the same in building understanding. The modality-specific view, on the other hand, stresses that each has its own processing features. Listening is more cognitively demanding because information is processed in real time and learners do not have the opportunity to re-read the input, whereas reading gives learners more control to re-read the text as needed (Sudatha et al., 2024; Wordofa et al., 2026).

Although many subskills are common to listening and reading, they have different processing characteristics. These subskills are the basis for language comprehension. These subskills include identifying main ideas and supporting information, understanding vocabulary in context, recognising relationships between ideas, deriving implicit meaning through inference, summarising information, and interpreting the author's or speaker's intent, tone, and attitude (Ismayilli Karakoç et al., 2022). The similarity between these two cognitive processes suggests that developing both skills concurrently is a pedagogically sound approach. Listening and reading skills can be developed simultaneously through

activities that focus on inferencing, identifying main ideas, and recognising relationships between different pieces of information (Nguyen, 2022). Furthermore, the capacity to comprehend both explicit and implicit information is a vital precursor to developing critical thinking and sophisticated language abilities (Adjei-Mensah et al., 2023; Ramadhan et al., 2022).

The TBDSB framework describes the development of receptive skills as a learning mechanism that combines TBLT principles with the affordances of digital storybooks. At the same time, the communicative tasks that accompany digital storybooks encourage learners to practice bottom-up processing, a way of learning a language from the smallest units (phonemes, words, grammar) and gradually building understanding until they understand the whole text or speech (Jones, 2025). Digital storybooks enable learners to recognise sounds, vocabulary, and language structures (Adjei-Mensah et al., 2023). Digital storybooks can also support top-down processing, the process of using prior knowledge, context, and expectations to understand the language in question (Jones, 2025). This involves activating prior knowledge, using story context, and making inferences to build complete meaning (Adjei-Mensah et al., 2023; Khan et al., 2020).

This study hypothesises that TBDSB are effective because they use digital media, combine multimodal input, involve authentic tasks, encourage collaborative interaction, and provide scaffolding that supports comprehensible input, inferencing, and meaning negotiation. Although several studies have investigated the benefits of TBLT and digital storybooks individually, few studies have integrated these two approaches into a TBDSB framework to improve EFL learners' receptive skills. This gap is the basis for this study and the formulation of the research questions. Therefore, the present study aims to assess the effectiveness of TBDSB in developing EFL learners' receptive skills. This research aims to answer the following research questions:

- RQ1. To what extent do Task-Based Digital Storybooks improve students' listening skills?
- RQ2. To what extent do Task-Based Digital Storybooks improve students' reading skills?
- RQ3. How do junior secondary school EFL students perceive the implementation of Task-Based Digital Storybooks?

Methodology

Research Design and Context

The study aimed to investigate the impact of TBDSB on students' listening and reading skills and to explore students' perceptions of its implementation in a state junior high school in Indonesia over a 10-meeting period. It adopted a Sequential Explanatory Mixed-Methods Design, employing two phases in which quantitative and qualitative data were collected to provide comprehensive information and support one another (Creswell, 2014). An experimental pretest-posttest control group design was carried out to determine whether the treatments given to the experimental group had a significant effect. The quantitative section employed a quasi-experimental design with experimental and control groups because participants could not be randomised. The data were students' scores from listening and reading skills pretests and posttests. Following the quantitative data, the qualitative data were students' responses from semi-structured interviews administered after the pre- and post-test treatments to support the discussion of the quantitative data and provide a comprehensive understanding.

Participants

Prior to conducting this study, we applied for permission from our Institutional Review Board, which reviews and approves research involving human participants. After obtaining approval, we contacted

potential schools. Among the six public junior high schools we contacted, only two responded, and we approached the headmasters to explain the study. The headmasters provided four first-grade junior high school classes, for a total sample of 101 students. However, we used intact-group sampling to recruit students because we could not randomise participants. We then explained the study to the students, including the risks and benefits of participating. We included a statement confirming that the intervention would not affect their grades, as this study was conducted independently of their regular academic assessments. We also obtained parental consent because all students were under 17 years old. All students and their parents consented to participate. Using a lottery, we selected two classes (51 students) as the experimental group that received TBDSB and two other classes (50 students) as the control group that received conventional digital storybook instruction using the same digital storybooks.

Data Collection and Instruments

This study administered a test and a semi-structured interview to collect the data. The test collected data on students' receptive skills. Two experts in teaching English as a foreign language reviewed the listening and reading tests for validation. All items were validated through a content validity test and received only minor feedback from the face validity test, such as clarifying instructions and avoiding ambiguous wording. As this study employed a pretest-posttest control group design, listening and reading pretests and posttests were administered to obtain data before and after the treatments.

The study was conducted in 10 meetings, with two meetings per week. Each instructional meeting lasted 80 minutes. The intervention consisted of 8 instructional meetings (640 minutes total, or approximately 10 hours and 40 minutes of instruction), followed by 2 post-test sessions. The study employed three stages. The first stage involved administering a pre-test to both groups. The second stage consisted of eight meetings, during which the experimental group received TBDSB instruction and the control group received conventional digital storybook instruction, followed by two post-test sessions to assess students' receptive skills (listening and reading). The final stage involved semi-structured interviews using open-ended questions to explore students' perceptions of the learning experience. The treatments in the experimental group followed the TBDSB instructional framework, consisting of a pre-task phase (reviewing a digital storybook), a main task phase (working in small groups, listening/reading digital stories, doing information/reasoning/opinion gap tasks), and a post-task phase (presentations, games, and self- and peer-reflections), followed by comprehensive teacher feedback. Meanwhile, students in the control group received conventional digital-storybook instruction, including reviewing materials, listening to audio recordings, reading digital storybooks, and participating in question-and-answer sessions.

Control group students used the same digital storybooks, with the same story titles, learning time, and instructional schedule, as the experimental group. However, the control group's learning activities were traditional and teacher-centred, not a task-based instructional cycle as in the experimental group. Each lesson began with the teacher's explanation of vocabulary and introduction to the story. Students then listened to and read the digital storybook individually. Following this, students worked individually on comprehension activities focused on the story's literal meaning. The lesson was concluded by a whole-class correction led by the teacher. No collaborative activities, information-gap tasks, opinion-gap tasks, reasoning-gap tasks, peer feedback, self-assessment, and structured pre-task and post-task phases were implemented in this condition. Thus, the control group received the same digital learning materials as the experimental group, but with a different pedagogical approach. This design allowed the study to assess the effectiveness of combining task-based pedagogy with digital storybooks, rather than the effectiveness of digital storybooks per se.

Tables 1 and 2 show that both groups had the same digital storybooks during the intervention. The main difference was in the pedagogical structure around the digital storybooks. Thus, the study compared a

Table 1 Comparison of treatment received by the experimental group and control group

Component	Experimental Group (TBDSB Instructional Package)	Control Group (Conventional Digital Storybook Instruction)
Digital storybooks	✓ Same titles	✓ Same titles
Learning duration	✓ Same	✓ Same
Multimodal story input (audio + written text + visuals)	✓ Same	✓ Same
Teacher	✓ Same	✓ Same
Learning objectives	✓ Same	✓ Same
Pre-task activities	✓	–
Information-gap tasks	✓	–
Opinion-gap tasks	✓	–
Reasoning-gap tasks	✓	–
Group discussion	✓	–
Collaborative learning	✓	–
Teacher scaffolding	✓ Structured	Limited
Peer feedback	✓	–
Self-assessment	✓	–
Individual comprehension exercises	–	✓
Whole-class correction	Limited	✓

Table 2 Lesson plans summary of experimental and control groups

Meeting	Topic	Lesson Plans	
		Experimental Group	Control Group
1	Study Routines	• Pre-task: teacher introduces topic with questions about students' study habits and activates vocabulary related to daily routines. • Main task: students listen to and read a digital storybook entitled "Alex's Study Habits", complete an information-gap task in groups (identifying and comparing study habits described in the story with their own). • Post-task: groups present findings; teacher provides structured feedback; students complete self-assessment checklist.	• Teacher introduces topic and key study-routine vocabulary. • Students listen to and read a digital storybook entitled "Alex's Study Habits". • Students answer written skills questions individually; teacher reviews answers with the class.
2	Study Habits and Frequency	• Pre-task: teacher reviews adverbs of frequency vocabulary; students brainstorm how often they do various study activities. • Main task: students listen to and read a digital storybook entitled "How Often Do You ...?", complete opinion-gap task in groups (evaluating which study habits in story are most effective and why). • Post-task: groups present opinions; peer feedback using structured checklist; teacher feedback; self-assessment reflection.	• Teacher reviews adverbs of frequency and study habits vocabs • Students listen to and read a digital storybook entitled "How Often Do You ...?" • Students complete written exercises (fill-in-the-blank and true/false); teacher provides whole-class correction.

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Meeting	Topic	Lesson Plans	
		Experimental Group	Control Group
3	My Effective Study Habits	• Pre-task: students share their most effective study habits; teacher introduces comparative vocab from storybook. • Main task: students listen to and read a digital storybook entitled "Rudi and Rido"; complete reasoning-gap task in groups (ranking study habits from most to least effective based on story evidence). • Post-task: groups present rankings with justifications; skills-based game; teacher feedback; self-assessment.	• Teacher introduces vocabulary for describing study effectiveness. • Students listen to and read a digital storybook entitled "Rudi and Rido". • Students complete written skills and ranking exercises; teacher reviews with class.
4	School Facilities	• Pre-task: teacher shows pictures of school facilities; students mention the names; students describe the rooms using descriptive vocabulary. • Main task: students listen to and read a digital storybook entitled "The Mysterious Rooms"; complete an information-gap task (two big groups have different school facilities; each member finds out what facilities other group members own based on auditory clues). • Post-task: groups present the task; teacher and peer feedback; comprehension-based game (guessing game); self-assessment.	• Teacher introduces vocabulary related to school facilities; students take notes. • Students listen to and read a digital storybook entitled "The Mysterious Rooms". • Students complete written comprehension exercises; teacher reviews with class.
5	Room Locations	• Pre-task: teacher displays a school map; students predict locations and activate prior vocabulary. • Main task: students listen to and read a digital storybook entitled "Bali Middle School"; complete an information-gap task in groups (labeling school map to descriptions and locations in the story). • Post-task: groups present school facilities map; teacher and peer feedback; self-assessment.	• Teacher introduces vocabulary for school room locations; students take notes. • Students listen to and read a digital storybook entitled "Bali Middle School". • Students answer written comprehension exercises; teacher reviews answers with the class.
6	Asking for and Giving Directions	• Pre-task: teacher shows a school map in the storybook; students practice reading the map. • Main task: students listen to and read a digital storybook entitled "How to Get ...?"; complete a reasoning-gap task in groups (determining the correct route based on spoken and written directions in the story). • Post-task: groups present their routes; peer feedback; comprehension game using direction based questions; teacher feedback and self-assessment.	• Teacher introduces expressions for asking and giving directions; students take notes. • Students listen to and read a digital storybook entitled "How to Get...?". • Students complete written direction-following exercises and short-answer questions; teacher provides correction.
7	Exploring School Clubs	• Pre-task: teacher introduces vocabulary for school clubs; students share their own extracurricular experiences.	• Teacher introduces vocabulary for extracurricular activities and school clubs; students take notes.

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Meeting	Topic	Lesson Plans	
		Experimental Group	Control Group
8	School Festival	• Main task: students listen to and read a digital storybook entitled “School Clubs”; complete opinion-gap task in groups (discussing which clubs would new students join and justifying their choices based on clues). • Post-task: groups present club recommendations; peer feedback; teacher feedback; self-assessment. • Pre-task: students review a school festival they have ever joined. • Main task: students listen to and read a digital storybook entitled “Festival Fairs”; complete an information-gap task in groups (discovering what festival fairs other groups have and comparing the events). • Post-task: groups present the comparison; peer feedback; teacher feedback; self-assessment.	• Students listen to and read a digital storybook entitled “School Clubs”. • Students answer written comprehension exercises; teacher reviews with the class. • Teacher introduces vocabulary for school festival activities; students take notes. • Students listen to and read a digital storybook entitled “Festival Fairs”. • Students answer written comprehension exercises; teacher reviews the answers with the class.

TBDSB instructional package with conventional digital storybook instruction, not digital storybooks with non-digital instruction.

In this study, the relationship between task types and receptive-skill processing is operationalised as shown in Table 3.

Table 3 *Operationalisation of task types and receptive-skill processing*

Task Type	Main Task	Listening	Reading	How the Skill Was Used in the Task
Information-gap task	Retrieving and exchanging specific information	Primary	Supporting	Students listened to the story/audio narration and identified specific information. Students shared the information they needed to be able to complete the task. There was available written text to be able to confirm or to locate information.
Opinion-gap task	Interpreting information and expressing personal responses	Supporting	Primary	Students read/interpreted story information to develop opinions and support their responses. Audio narration assisted understanding of the content of the story.
Reasoning-gap task	Integrating information, making inferences, and solving problems	Primary	Primary	Students read relevant information from different parts of the story, listened to relevant information from different parts of the story, integrated the information, made inferences and justified their solutions.

An in-depth interview was conducted to obtain qualitative data on students' perceptions of the implementation of TBDSB in their English learning. It followed the semi-structured guide flexibly using neutral follow-up probes to elicit elaboration and allowing space for participants to raise any negative or neutral experiences. Ten students from the experimental group participated in the interviews. They were selected using purposive sampling based on the following criteria: (1) remembered the implementation of TBDSB and (2) were willing to share perceptions about the implementation of TBDSB. Those ten students were interviewed individually in a single session, each lasting 30-40 minutes. The interviews were conducted one week after the students completed the post-test. They took place over two days, with five students interviewed on the first day and another five on the second day, in a rotating manner.

Data Analysis

After collecting all data, several statistical analyses were carried out. First, the normality of the data distribution for both groups was investigated using the Kolmogorov-Smirnov Test, as the total sample size in each group was 50 or more. Homogeneity of Variance Test and Box's M MANOVA Homogeneity Test were employed to ensure that the study had fulfilled the prerequisite requirement to decide further analysis. Moreover, One-Way MANOVA was administered to test the hypotheses and determine whether TBDSB had a significant effect on students' receptive skills, both simultaneously and separately. Lastly, the responses of all 10 students were recorded and transcribed into an excerpt table. Thematic analysis was conducted to interpret students' perceptions of the implementation of TBDSB in enhancing their receptive skills. The researchers followed the stages of thematic analysis as described by Braun and Clarke (2006), which consist of six stages: familiarising with the data, generating initial codes, searching for themes, reviewing themes, defining and naming themes, and producing the report. To ensure inter-rater reliability, two raters coded the data and compared their codes. Only coding agreed upon by both raters was used in this study.

Findings

The results of the data analysis to answer the three research questions are presented in this section. Since the study examined two related dependent variables (listening skills and reading skills), a one-way MANOVA was first conducted to determine whether the instructional package had an overall multivariate effect on students' receptive skills. If the multivariate test showed an overall difference, follow-up univariate analyses were conducted to determine whether the effect was in listening skills, reading skills, or both. There was a significant multivariate effect for the MANOVA (Roy's Largest Root = .145, $F(2,98) = 7.11$, $p = .001$, partial $\eta^2 = .127$). This indicated that TBDSB had a significant effect on the combined listening and reading outcomes.

For each dependent variable, individual univariate analyses were conducted following the significant multivariate result. Although listening and reading abilities were analysed as separate dependent variables, the development of both skills tended to be interconnected during the intervention process. This is because both skills were cultivated through the same multimodal learning process. Therefore, the subsequent univariate analysis was conducted not to show that the intervention influenced listening and reading abilities through entirely distinct instructional mechanisms, but to reveal specific patterns of inter-group differences in these outcomes. Specifically, the effect of TBDSB on students' listening and reading skills, and students' perceptions of TBDSB implementation, are explained as follows.

RQ1. To what extent do TBDSB improve students' listening skills?

Table 4 presents the descriptive statistics for students' listening-skill scores for the two groups. This study found that the mean score of students' listening skills in the experimental group increased from

Table 4 *Descriptive statistics of students' listening skills scores*

Group	Test	n	Mean	Median	SD
Experimental	Pre-test	51	70.00	70.00	8.54
	Post-test	51	83.28	85.00	9.41
Control	Pre-test	50	69.50	70.00	8.47
	Post-test	50	78.10	77.50	10.02

70.00 in the pre-test to 83.28 in the post-test. The control group increased from 69.50 to 78.10. Both groups improved, but the experimental group scored significantly higher on average on the post-test, indicating that students who learned through TBDSB made more progress in listening skills.

An independent t-test comparing pre-test results between the two groups revealed no significant difference in listening skills between the control and experimental groups prior to the treatment (Sig. 0.768). Table 5 presents the independent t-test results.

Table 5 *Independent t-test results of students' listening skills scores*

Test	t	df	Sig. (2-tailed)	Mean Difference	Std. Error Difference
Listening skills pre-test	0.295	99	.768	0.50	1.693

The between-subjects analysis in Table 6 showed a statistically significant difference between the experimental and control groups in listening skills ($F = 7.184$, $p = .009$, partial $\eta^2 = .068$). The effect size indicates a moderate effect, suggesting that TBDSB played a positive role in students' listening development.

Table 6 *Effect of TBDSB on students' listening skills*

Source	Dependent Variable	F	P	Partial η^2	Effect Size
Group (TBDSB vs. Control)	Listening Skills	7.184	.009	.068	Moderate

RQ2. To what extent do TBDSB improve the reading skills of junior secondary school EFL students?

Based on the descriptive statistics in Table 7, before the intervention, both groups showed somewhat similar reading-skill performance, with mean scores of 69.51 for the experimental group and 67.80 for the control group. After the intervention, the mean score of the experimental group increased to 84.07, and that of the control group to 78.75. The median scores also showed similar improvements. To sum up, the descriptive results showed that students who learned through TBDSB gained higher improvements in reading skills than students who received traditional instruction.

Table 7 Descriptive statistics of students' reading skills scores

Group	Test	n	Mean	Median	SD
Experimental	Pre-test	51	69.51	70.00	8.38
	Post-test	51	84.07	82.50	9.01
Control	Pre-test	50	67.80	70.00	8.99
	Post-test	50	78.75	80.00	9.36

Based on the comparison of pre-test results using an independent t-test, there was no significant difference in reading skills between the control and experimental groups prior to the treatment (Sig. 0.325). Table 8 presents the results of the independent t-test for the reading skills pre-tests.

Table 8 Independent t-test results of students' reading skills scores

Test	t	df	Sig. (2-tailed)	Mean Difference
Reading skills pre-test	0.989	99	.325	1.71

Table 9 shows the between-subject analysis, which confirmed that the difference between the experimental and control groups was statistically significant for reading skills, $F(1, 99) = 8.465$, $p = .004$, partial $\eta^2 = .079$. The effect size indicated a moderate effect, suggesting that TBDSB positively contributed to students' reading skills. In addition, the effect size for reading (partial $\eta^2 = .079$) was slightly higher than for listening (partial $\eta^2 = .068$), which showed that TBDSB was more effective in enhancing reading skills than listening skills among junior secondary school EFL learners.

Table 9 Effect of TBDSB on students' reading skills

Source	Dependent Variable	F	p	Partial η^2	Effect Size
Group (TBDSB vs. Control)	Reading Skills	8.465	.004	.079	Moderate

RQ3. How do junior secondary school EFL students perceive the implementation of TBDSB?

In addition to the quantitative results, semi-structured interviews were conducted with 10 students (5 girls and 5 boys) from the experimental group. The interviews explored students' learning experiences during the implementation of the TBDSB. The analysis yielded four related themes: (1) authentic engagement in task-based learning, (2) collaborative interaction and negotiation of meaning, (3) formative support and feedback, and (4) repeated engagement with tasks. These themes provide qualitative evidence of how the students experienced the learning package during the intervention.

Engagement in authentic task-based learning

The first theme to emerge from the interview data was engagement in authentic task-based learning. This theme was identified in the responses of nine of the ten participants, suggesting that most students considered the task-based learning activities the most salient aspect of the TBDSB instructional package. Instead of simply doing a comprehension exercise, students described the learning activities

as meaningful challenges that required them to actively make sense of story content to accomplish communicative tasks. The responses indicated that students felt the task-based activities made listening and reading more meaningful and interesting. S8-M, for instance, described his learning experience as follows:

“I feel like I am interacting with the digital storybook, for example, the one with the story of Dino. There is a session when the narrator asks a question, ‘Can you find Dino for me?’ followed by describing Dino’s appearance. At that time, I think it is a challenge for me to find Dino. I try to do so by comparing the description I listen to with the pictures. And I did it. I have my learning more alive and active since then.” (S8-M)

S6-M similarly described how the task required him to think actively about presenting his work:

“...I have to present my findings creatively. For sure, I think so hard how I am going to do it. But finally, I decide to draw pictures to present my work.” (S6-M)

The extracts show that students understood the performance of authentic tasks as a form of active engagement with the story content, rather than a passive reception of information. The focus was not on isolated language exercises but on completing meaningful learning tasks, which students identified as more interesting. This theme supports the quantitative findings, as students perceived the authentic task cycle as a factor that supported their listening and reading development.

Collaborative Interaction and Meaning Negotiation

The second theme was collaborative interaction and meaning negotiation, which appeared in the responses of eight participants. Students consistently emphasized that completing the tasks collaboratively enabled them to exchange ideas, compare interpretations, and clarify their understanding of the stories. Rather than simply dividing the workload, students viewed discussion as an opportunity to develop shared understanding while completing the assigned tasks. S2-F explained:

“I like doing the tasks with my friends. Whenever we are grouped, we divide the tasks but still help each other. Sometimes, we discuss and solve the problems together. So, each of the member has equal responsibility towards the group.” (S2-F)

This quote illustrates that students saw collaboration as an integral part of learning and not just a classroom management strategy. The discussions drove the students to negotiate meanings, resolve different interpretations and support each other in completing the tasks. The results suggest that students perceived collaborative interaction as helpful for understanding through shared interpretation, which may explain why the experimental group showed better listening and reading performance than the control group.

Scaffolding and Formative Feedback

The third theme was scaffolding and formative feedback, reported by eight participants. Students repeatedly reported that teacher questioning, peer feedback, and opportunities to revise their work were valuable forms of learning support across the task cycle. They found that the supports helped them to better understand story content and improve the quality of their responses. S8-M mentioned the role of the teacher in the learning process:

“It [TBDSB] is good and interesting, but the teacher is also helpful. When we have finished studying the materials, my teacher scaffolds by asking several questions.” (S8-M)

Similarly, S5-F emphasized the value of feedback:

“Feedback that I get from my friends and teacher is so helpful for me to recognize my potentials and limitations in learning. I feel that I have support from them to improve more.” (S5-F)

Another participant, S2-F, explained:

“The feedback from my friends and teacher turns out to be so useful. It helps me discover the mistakes that I have never been aware of. This way, I could check and recheck my work again and again.” (S2-F)

Collectively, these responses indicate that students perceived scaffolding as continuous learning support rather than direct instruction. The combination of teacher guidance and peer feedback enabled students to complete increasingly demanding tasks while gradually improving their understanding of the stories. These perceptions complement the quantitative findings by illustrating how students experienced the instructional support embedded within the TBDSB implementation.

Repeated Task Engagement

The final theme identified was repeated task engagement, mentioned by 7 participants. Students said that doing different tasks on the same story helped them gradually build a deeper understanding of the story content. Students did not find repetition boring but rather a way to move from easier to more difficult tasks to build understanding. S3-F described the process as follows:

“Actually, the repeated and varied tasks help me a lot. Doing the simpler tasks, and then more complex ones, challenges me to do them. I just feel confident as I have done the similar ones previously...” (S3-F)

This quote suggests that students felt that repeated encounters with the story allowed them to consolidate their understanding before moving on to more demanding activities. The tasks were progressive, which appeared to lessen the difficulty of later tasks, as the students had already been introduced to the story content. Thus, repeated task engagement was viewed as a factor contributing to listening and reading skills, as it enabled students to revisit and process information through various learning activities.

Overall, the interview results indicated that students had positive perceptions of the implementation of TBDSB. Interestingly, students not only highlighted the use of digital storybooks as a learning medium, but also attributed their learning experiences to the pedagogical characteristics that accompanied its implementation, such as authentic tasks, collaborative interactions, scaffolding from teachers and peers, and repeated engagement through various task-based activities. These qualitative findings complement the quantitative results by explaining how the components of the TBDSB learning package are perceived to support the development of students' listening and reading skills. Table 10 summarizes the four themes, together with representative quotations and their interpretation.

Discussion

The present study investigated the effects of a TBDSB instructional package integrating digital storybooks, task-based learning activities, collaborative interaction, scaffolding, and formative feedback on junior secondary school EFL students' listening and reading skills. In addition, the multivariate and

Table 10 *Interpretation of the theme based on the interview results*

Theme	Representative Quotations	Interpretation
Authentic task engagement	S8, S6, S3	Students perceived authentic tasks as making learning meaningful and engaging.
Collaborative interaction	S2, S5	Students viewed peer discussion as helpful in understanding the story's content.
Scaffolding and feedback	S5, S8, S2	Students perceived teacher questioning and peer feedback as valuable learning support.
Repeated task engagement	S3, S6	Students believed repeated exposure to tasks strengthened their understanding of the stories.

between-subjects analyses showed that students who learned through the TBDSB instructional package scored significantly higher than those who received conventional digital storybook instruction on both listening and reading skills. It should be noted that listening and reading were the only receptive skills assessed in this study. Other language skills, such as speaking and writing, were not measured. Thus, the reported gains should not be interpreted as evidence of broader language proficiency development. The interview data added further explanatory evidence to the quantitative findings, showing that students consistently valued the completion of authentic tasks, collaborative interaction, scaffolding, and repeated engagement with story content as components of the learning process. As in the present study, previous studies have also shown that task-based instruction can enhance listening and reading skills (Khan et al., 2020). This study contributes to the evidence by showing that similar benefits can be achieved through the systematic integration of task-based pedagogy and digital storybooks in junior secondary EFL contexts.

It is important to mention that both groups used the same digital storybooks during the intervention. Thus, the differences observed cannot be attributed to the digital storybooks per se. Instead, the findings are better viewed as the effects of the task-based instructional package surrounding the digital storybooks, including authentic task sequencing, collaborative interaction, scaffolding, formative feedback, and repeated engagement with the story content. This is an important distinction because the study manipulated the pedagogy accompanying the digital storybooks, not the storybooks themselves.

One possible interpretation of the findings is related to the authentic task-based instructional design used throughout the intervention. Students in the experimental group, as opposed to those in the control group, engaged in information-gap, opinion-gap, and reasoning-gap tasks that required collaborative interpretation of story content to achieve meaningful learning goals. These communicative tasks could have led to more active processing of the story information by the students than separate comprehension exercises would have, following the principles of Task-Based Language Teaching (Ellis et al., 2019; Morgana, 2023). This interpretation is supported by the interview findings, where students described the progressively challenging tasks as making the learning process more engaging and meaningful. In addition, some participants commented that after finishing one task, they felt more confident with the next tasks, suggesting that task order helped to sustain engagement during the learning process.

The experimental group's better performance can also be explained by collaborative interaction. During the intervention, students worked in small groups, discussing the story's content, comparing ideas, negotiating interpretations, and jointly completing the assigned tasks. Such collaborative interaction provides opportunities for negotiation of meaning, allowing learners to clarify misconceptions and

build a shared understanding of the story (Ahmadsaraei & Gilakjani, 2022; Nguyen, 2022). The interview findings support this interpretation, as students reported understanding the stories better when they discussed different answers and collaborated on problem-solving activities. These qualitative findings suggest that collaborative discussion is viewed as part and parcel of the instructional package, rather than as a mere classroom management strategy.

Another possible interpretation is that scaffolding is embedded in the task cycle. In the present study, scaffolding was operationalised as teacher questioning during the pre-task and post-task stages, vocabulary support, peer discussion, formative feedback, and opportunities for task revision. These types of temporary support could have helped students complete more demanding tasks while gradually fostering greater involvement and independence (Chen & Wang, 2019). The interview results confirm this interpretation. Students reported that teacher questioning consistently helped them understand the story content better, and feedback from peers and teachers helped them identify their mistakes, revise their responses, and improve their performance on the next task. Together, these findings suggest that scaffolding and formative feedback were seen as integral to the learning process that supported successful task completion.

While the TBDSB instructional package resulted in statistically significant gains in listening and reading skills, the effect sizes were moderate rather than large (partial $\eta^2 = .127$ for the multivariate effect, .068 for listening, and .079 for reading). This can be attributed to several implementation-related factors. Studies have indicated that the success of TMTBLT is contingent on the quality of task design, teacher facilitation, and institutional support (Kim & Namkung, 2024; Morgana, 2023). These factors were not directly assessed in the current study, but they offer reasonable avenues for understanding the observed moderate effect.

The qualitative findings also provide a complementary picture to the quantitative results by describing students' experiences of the instructional package. Instead of crediting their learning gains to the digital storybooks in isolation, participants consistently attributed their positive learning experiences to authentic tasks, collaborative interaction, teacher support, peer feedback, and repeated engagement with the story content.

The findings have pedagogical implications for teaching English. First, teachers need to see digital storybooks as instructional resources whose educational value depends on their pedagogical integration into classroom learning. Providing only digital storybooks may not be sufficient to improve receptive skills. Instead, teachers need to design real-life, task-based learning activities where students can discuss the story content, negotiate meaning together, and interact with the learning materials repeatedly. Second, scaffolding strategies such as teacher questioning, formative feedback, and opportunities for task revision should be systematically embedded throughout the task cycle to help learners complete increasingly challenging tasks.

Conclusion

This study investigated the effectiveness of a TBDSB instructional package in enhancing the listening and reading skills of junior secondary school EFL students. Results indicated that students who received the TBDSB instructional package performed significantly better than those who received the conventional digital storybook instruction in both listening and reading skills. The interview results also reinforced the quantitative results by emphasising students' positive perceptions of authentic tasks, collaborative interaction, scaffolding, and formative feedback throughout the learning process. As both groups had the same digital storybooks, the improvement should be attributed to the task-based instructional package rather than the digital storybooks alone. The findings contribute to the literature

on TMTBLT by showing the benefits of incorporating authentic tasks, collaboration, scaffolding, and feedback into digital storybook instruction.

Limitations of the study included the relatively short intervention period which did not allow for an assessment of whether the observed gains in listening and reading skills would be sustained over time. The evaluation of the instructional package was also seen as a whole rather than its individual components which limits conclusions about which specific components contributed most to the observed effects. In addition, since only ten students were involved in the interview sessions, the data obtained may not fully represent the entire research sample. As interview participants were partly selected based on their willingness to share their perceptions, the qualitative sample may have been skewed toward more engaged and positively disposed students. This potential self-selection bias should be considered when interpreting the interview findings. Future studies should examine the long-term implementation (1 year) of technology-mediated task-based instruction to reveal whether these improvements actually last, the contribution of specific pedagogical components (e.g. teacher readiness, scaffolding intensity, and task design), and its application to different educational contexts and language skills by involving larger samples, especially in collecting the qualitative data.

AI Use Statement

During the preparation of this manuscript, ChatGPT (OpenAI) and Grammarly were used to support language editing by improving grammar, clarity, and readability. All suggestions generated by the AI tool were carefully reviewed, evaluated, and revised by the authors before being incorporated into the manuscript. It was not used to design the study, collect or analyze the data, interpret the findings, develop the discussion, or draw the conclusions. All scientific decisions, interpretations, and the final content of the manuscript are the sole responsibility of the authors.

References

- Adjei-Mensah, S., Boakye, N. Y., & Masenge, A. (2023). Improving the reading proficiency of mature students through a task-based language teaching approach. *Reading and Writing (South Africa)*, 14(1), 1–12. <https://doi.org/10.4102/rw.v14i1.406>
- Ahmadsaraei, M. R., & Gilakjani, A. P. (2022). Exploring the effect of task-based language teaching on reading comprehension: Evidence from Iranian intermediate EFL learners. *Research in English Language Pedagogy*, 10(3), 517–536. <https://doi.org/10.30486/RELP.2022.1953908.1368>
- Alexander, B. (2011). *The new digital storytelling: Creating narratives with new media*. Praeger. Retrieved from <https://doi.org/10.5040/9798216979456>
- Alonso-Campuzano, C., Filosofi, F., Tardivo, A., Pasqualotto, A., Sosa-Gonzalez, N., Venuti, P., & Iandolo, G. (2025). Collaborative storytelling with Spanish primary school students. *Psychology in the Schools*, 62(11), 4490–4515. <https://doi.org/10.1002/pits.70019>
- Anand, P. (2020). Using a digital storybook as assessment for learning to motivate students in an enabling and pathways to university program. *International Journal of Innovation and Research in Educational Sciences*, 7(5), 432–442.
- Baralt, M., & Gómez, J. M. (2017). Task-based language teaching online: A guide for teachers. *Language Learning and Technology*, 21(3), 28–43. <https://doi.org/10.64152/10125/44630>
- Belda-Medina, J. (2021). Enhancing multimodal interaction and communicative competence through task-based language teaching (Tbtl) in synchronous computer-mediated communication (scmc). *Education Sciences*, 11(11). <https://doi.org/10.3390/educsci11110723>
- Benmayor, R. (2008). Digital storytelling as a signature pedagogy for the new humanities. *Arts and Humanities in Higher Education*, 7(2), 188–204. <https://doi.org/10.1177/1474022208088648>

- Blancaflor, R. J. D., Mauleon, M. I. I., & Purpura, J. F. (2021). Use of task-based activities in improving active listening comprehension skills of grade 8 ESL students. *Modern Journal of Studies in English Language Teaching and Literature*, 3(1), 68–81. <https://doi.org/10.56498/31202150>
- Braun, V., & Clarke, V. (2006). Using thematic analysis in psychology. *Qualitative Research in Psychology*, 3(2), 77–101. <https://doi.org/10.1191/1478088706qp063oa>
- Bus, A. G., Takacs, Z. K., & Kegel, C. A. T. (2015). Affordances and limitations of electronic storybooks for young children's emergent literacy. *Developmental Review*, 35, 79–97. <https://doi.org/https://doi.org/10.1016/j.dr.2014.12.004>
- Bygate, M. (2016). Sources, developments and directions of task-based language teaching. *Language Learning Journal*, 44(4), 381–400. <https://doi.org/10.1080/09571736.2015.1039566>
- Chen, S., & Wang, J. (2019). Effects of task-based language teaching (TBLT) approach and language assessment on students' competences in intensive reading course. *English Language Teaching*, 12(3), 119–138. <https://doi.org/https://doi.org/10.5539/elt.v12n3p119>
- Chunliu, X., & Guangsheng, L. (2025). The effectiveness of task-based language teaching in improving communicative competence. *International Journal of Advanced and Applied Sciences*, 12(1), 263–273. <https://doi.org/10.21833/ijaas.2025.01.025>
- Creswell, J. W. (2014). *Research design: Qualitative, quantitative, and mixed methods approaches* (Vol. 4). Sage publications.
- Davis, A., & Foley, L. (2015). Digital storytelling. In *Handbook of research on the societal impact of digital media* (pp. 317–342). <https://doi.org/10.4018/978-1-4666-8310-5.ch013>
- Ellis, R. (2024). Task-based and task-supported language teaching. *International Journal of TESOL Studies*, 6(4), 1–13. <https://doi.org/10.58304/ijts.20240401>
- Ellis, R., Skehan, P., Li, S., Shintani, N., & Lambert, C. (2019). Task-based language teaching: Theory and practice. In *Task-based language teaching: Theory and practice*. <https://doi.org/10.1017/9781108643689>
- Ellis, R. (2009). Task-based language teaching: Sorting out the misunderstandings. *International Journal of Applied Linguistics*, 19(3), 221–246. <https://doi.org/10.1111/j.1473-4192.2009.00231.x>
- Granena, G., & Yilmaz, Y. (2021). A psycholinguistically motivated methodology for task-based language teaching. In *The Cambridge handbook of task-based language teaching* (pp. 305–325). <https://doi.org/10.1017/9781108868327.018>
- Hashemi, M., Azizinezhad, M., & Darvishi, S. (2012). Using task-based language teaching, learning practically in english classes. *Procedia - Social and Behavioral Sciences*, 31, 526–529. <https://doi.org/10.1016/j.sbspro.2011.12.098>
- Hunt, E., Smith, R., Gifford, J., Ankers, E., Mansfield, L., & Day, M. (2026). Introduction to digital storytelling. In *Qualitative Research Methods for Sport Studies* (pp. 218–235). <https://doi.org/10.4324/9781003484530-18>
- Ismayilli Karakoç, A., Ruegg, R., & Gu, P. (2022). Beyond comprehension: Reading requirements in first-year undergraduate courses. *Journal of English for Academic Purposes*, 55, 101071. <https://doi.org/https://doi.org/10.1016/j.jeap.2021.101071>
- Jahan, K., & Shakir, A. (2022). Implementation of task-based language teaching approach in Pakistani University classrooms. *Journal of English Language, Literature and Education*, 4(2), 1–21. <https://doi.org/10.54692/jelle.2022.0402128>
- Jeong, K. O. (2018). Reframing task performance with technology to promote positive interdependence in language learning. *Journal of Theoretical and Applied Information Technology*, 96(21), 7303–7311. <https://www.scopus.com/inward/record.uri?eid=2-s2.0-85057184923&partnerID=40&md5=764b0d75d16eccbf27487c1c323e7b74>
- Jones, T. (2025). Bottom-up and top-down listening. In *The handbook of second language listening* (pp. 246–259). <https://doi.org/10.1002/9781394312375.ch18>
- Karimova, G., Ishanov, P., Mukanova, S., Odintsova, S., & Aratayeva, A. (2023). The effects of using digital stories and media in foreign language teaching. *International Journal of Education*

- in Mathematics, Science and Technology*, 11(5), 1113–1130. <https://doi.org/10.46328/ijemst.3599>
- Khan, N. W., Rizvi, Z., Iqbal, H., & Asghar, Z. (2020). A comparative study of task based approach and traditional approach in English language teaching. *Hamdard Islamicus*, 43(1), 895–911.
- Khezrlou, S. (2025). Task-based language teaching. In *The Cambridge handbook of technology in language teaching and learning* (pp. 377–392). <https://doi.org/10.1017/9781009294850.028>
- Kim, Y., & Namkung, Y. (2024). Methodological characteristics in technology-mediated task-based language teaching research: Current practices and future directions. *Annual Review of Applied Linguistics*, 44, 56–78. <https://doi.org/10.1017/S0267190524000096>
- Kolsut, S., & Szumilas, M. (2023). Exploring student engagement in task-based and communicative language classrooms. *Language Teaching Research*, August 3, 1–30. <https://doi.org/10.1177/13621688231188800>
- Kotaman, H., & Balci, A. (2019). Impact of realistic and non-realistic storybook characters on young children's book listening comprehension. *Early Child Development and Care*, 189(3), 450–462. <https://doi.org/10.1080/03004430.2017.1325882>
- Maureen, I. Y., van der Meij, H., & de Jong, T. (2022). Evaluating storytelling activities for early literacy development. *International Journal of Early Years Education*, 30(4), 679–696. <https://doi.org/10.1080/09669760.2021.1933917>
- Miller, C. H. (2014). Digital storytelling: A creator's guide to interactive entertainment, Third Edition. In *Digital storytelling: A creator's guide to interactive entertainment, third edition*. <https://doi.org/10.4324/9780203425923>
- Morgana, V. (2023). *Task-based English language teaching in the digital age: Perspectives from secondary education*. Bloomsbury Publishing. <https://doi.org/10.5040/9781350288041>
- Nguyen, Q. N. (2022). Teachers' scaffolding strategies in internet-based ELT classes. *TESL-EJ*, 26(1), 1–35. <https://doi.org/10.55593/EJ.25101A1>
- Nguyen, T. A., & Jaspaert, K. (2021). Implementing task-based language teaching in an Asian context: Is it a real possibility or a nightmare? A case study in Vietnam. *ITL - International Journal of Applied Linguistics*, 172(1), 121–151.
- Nguyen, T. T. N. (2022). The effects of task-based instruction on reading comprehension of non-English major students at a university in the Mekong Delta. *International Journal of TESOL & Education*, 2(4), 1–20. <https://doi.org/10.54855/ijte.22241>
- Nojoumian, P. (2025). Innovative technology in language classroom: Using virtual reality in task-based language teaching. *Persian Language Pedagogy: New Trends and Innovations* (pp. 159–183). <https://doi.org/10.4324/9781003612872-9>
- Nunan, D. (2004). *Task-based language teaching*. Cambridge University Press.
- Ozbay, I., & Ugurelli, Y. O. (2023). Changing children's literature in the digital age: Digital books. *International Journal of Education and Literacy Studies*, 11(1), 68–85. <https://doi.org/10.7575/aiac.ijels.v.11n.1p.68>
- Pardo, B. S. (2014). Digital storytelling: A case study of the creation, and narration of a story by EFL learners. *Digital Education Review*, 26, 74–84. <https://doi.org/10.1344/DER.2014.0.74-84>
- Pérez, D. A. P., Salamanca, Y. N. S., Cely, J. P. C., Caro-Torres, M. C., & Barrios, A. M. E. (2024). Authentic tasks in EFL eforums: A bridge for knowledge construction and interaction enhancement. *Journal of Educators Online*, 21(1), 1–18. <https://doi.org/10.9743/JEO.2024.21.1.16>
- Rahiem, M. D. H. (2021). Storytelling in early childhood education: Time to go digital. *International Journal of Child Care and Education Policy*, 15(1). <https://doi.org/10.1186/s40723-021-00081-x>
- Ramadhan, S., Atmazaki, Indriyani, V., & Sukma, E. (2022). Increasing students' reading skill through the use of task-based digital teaching materials in online learning. *Proceedings of the 5th International Conference on Language, Literature, and Education (ICLLE-5 2022)*, 1, 331–342. <https://doi.org/10.2991/978-2-494069-85-5>

- Sanders, D., & Welk, D. S. (2005). Strategies to scaffold student learning: applying Vygotsky's Zone of Proximal Development. *Nurse Educator*, 30(5), 203–207. <https://doi.org/10.1097/00006223-200509000-00007>
- Shokhayev, M., Nurdauletova, B., Kabylov, A., Turysbek, R., & Zhailovov, B. (2023). The effect of digital stories in teaching historical texts in literature class. *International Journal of Education in Mathematics, Science and Technology*, 12(2), 496–512. <https://doi.org/10.46328/ijemst.3862>
- Shukurova, F. (2024). Foreign language teaching methods in task-based learning. *Arab World English Journal*, 15(1), 44–55. <https://doi.org/10.24093/awej/vol15no1.4>
- Smith, B., & González-Lloret, M. (2021). Technology-mediated task-based language teaching: A research agenda. *Language Teaching*, 54(4), 518–534. <https://doi.org/10.1017/S0261444820000233>
- Son, S.H.C., & Butcher, K. R. (2024). Effects of varied multimedia animations in digital storybooks: A randomised controlled trial with preschoolers. *Journal of Research in Reading*, 47(3), 249–268. <https://doi.org/10.1111/1467-9817.12452>
- Son, S. H. C., Butcher, K. R., & Liang, L. A. (2020). The influence of interactive features in storybook apps on children's reading comprehension and story enjoyment. *Elementary School Journal*, 120(3), 422–454. <https://doi.org/10.1086/707009>
- Sudatha, I. G. W., Jayanti, L. S. S. W., Bayu, G. W., Widiana, I. W., & Halili, S. H. B. (2024). Task-based e-learning on students' cognitive assonance and reading engagement in English learning process at elementary schools. *International Journal of Language Education*, 8(2), 250–266. <https://doi.org/10.26858/ijole.v8i2.64115>
- Vellanki, S. S., & Bandu, S. (2021). Engaging students online with technology-mediated task-based language teaching. *Arab World English Journal*, 1(April 2021), 107–126. [https://doi.org/DOI: https://dx.doi.org/10.24093/awej/covid.8](https://doi.org/DOI:https://dx.doi.org/10.24093/awej/covid.8)
- Vinh Le, H. T., & Ziegler, N. (2025). Technology-mediated TBLT and language development for beginning learners of Vietnamese. *Language Learning and Technology*, 29(2), 44–75. <https://www.scopus.com/inward/record.uri?eid=2-s2.0-85216945135&partnerID=40&m-d5=46877ba0be73a79889c9527436aa67df>
- Vivitsou, M., Kallunki, V., Niemi, H., Penttilä, J., & Harju, V. (2017). Student-driven knowledge creation through digital storytelling. In *New Ways to Teach and Learn in China and Finland: Crossing Boundaries with Technology* (pp. 35–53).
- Wordofa, Y. J., Gencha, M. G., & Hadgu, A. M. (2026). Enhancing EFL students' cognitive, affective, and conative reading attitudes: The role of task-based instruction. *SAGE Open*, 16(2). <https://doi.org/10.1177/21582440261455220>

Appendix 1. Interview Guides

Theoretical Framework Underlying the Guide

The interview questions below were constructed and guided by a multidimensional construct of learner perception comprising the cognitive, affective, and behavioral components. This framework integrates two complementary theoretical traditions:

- (1) The tripartite model of attitudes by Rosenberg and Hovland (in Hernández Salinas, 2024) which conceptualizes an attitude or perception as comprising a cognitive (beliefs and understanding), an affective (feelings and emotional responses), and a behavioral (actions and engagement) components.
- (2) Vygotsky's Sociocultural Theory (in Lantolf et al., 2020) and Long's Interaction Hypothesis (in Gass et al., 2025) which foreground a social dimension of perception. Higher-order cognitive and affective development is understood to be mediated through social interaction, collaborative negotiation of meaning, and scaffolding within learners' Zone of Proximal Development (ZPD). This dimension is added because TBDSB is inherently a socially mediated collaborative instructional package (e.g. group tasks, peer feedback, teacher scaffolding).

Therefore, four dimensions were used as sensitising concepts to design the questions below. Table 11 summarizes how each dimension is defined and where it is targeted in the guide.

Table 11 *Blueprint of the interview guide*

Dimension	Definition in this study	Question no.
Cognitive	Students' beliefs and understanding about how TBDSB activities helped them process and comprehend spoken and written (listening/reading) input	3–5
Affective	Students feelings, motivation, confidence, enjoyment, and emotional responses towards the TBDSB learning experiences	6–8
Social	Students' views on collaboration and negotiation of meaning with peers and scaffolding/feedback received from teachers and classmates	9–12
Behavioral	Students' accounts of their own engagement, effort, strategies, and experience of the repeated task cycles across meetings	13–15

Interview Procedure Notes

- Format: individual, semi-structured, face-to-face interview
- Duration: approximately 30-40 minutes per student
- Language: recommended to be conducted in the students' first language (Indonesian) to allow fuller and more comfortable expression. Responses should be then transcribed, translated into English, and checked by back-translation for the analysis and reporting stages
- Before starting:
 - (a) remind the participant of the interview's purposes
 - (b) confirm informed consent (and parental consent, since participants were under 17)
 - (c) explain that participation is voluntary and the answers will not affect grades and responses will be anonymized (e.g. S1-M, S2-F) in any report
 - (d) obtain permission to audio-record
- Delivery: the core questions below are used as a flexible guide

Interview Questions

1. Can you tell me about your experience learning English this semester using the digital storybooks in class?
2. Out of all the lessons you had, which one do you remember the most? Can you tell me about it?
3. When you did activities like finding information, giving your opinions, or solving problems based on the story, did they help you understand the story content? If so, how? If not, why?
4. Do you think doing these kinds of tasks changed the way you listen to or read English stories? In what way?
5. Was there a part of the digital storybooks (narration/audio, pictures, written texts) that stood out to you the most? Which one? Why do you think so?
6. How did you generally feel while doing the listening and reading tasks with the digital storybooks?
7. Can you tell me about a time when you felt confident, proud, or excited while doing the tasks?
8. Was there a time when you felt confused, worried, or bored? If so, what made you feel that way and what did you do about it?
9. Can you describe how you and your group worked together to complete the tasks?
10. Tell me about a time when you and your friends had different answers or ideas about the story. What did you do to solve it?
11. Did your teacher help you when you found a task difficult? If so, what did your teacher do? How? If not, what helped you?
12. Did feedback from your teacher or your friends help you with your work? Why yes or why not?
13. What did you usually do when you found a task difficult to finish?
14. Throughout the meetings, you did similar kinds of tasks with different stories. How did doing similar tasks again and again affect the way you worked on them?
15. Did the digital storybook lessons make you do anything on your own, outside of class, to practice your English?
16. Do you think learning through these digital storybook activities changed your listening and reading skills in any way, positively, negatively, or not at all? Why do you think so?
17. Do you have any suggestions for how these lessons could be made better?

References

- Gass, S. M., Mackey, A., & Montee, M. (2025). Input, interaction, and output in L2 acquisition. In *Theories in second language acquisition* (pp. 183–216). Routledge. <https://doi.org/10.4324/9781003491118-8>
- Hernández Salinas, F. de la Luz. (2024). Cognitive, affective and behavioral attitudes in English language learning. *Educational Research*, 8(1), 17–26. <https://doi.org/10.32591/coas.ojer.0801.02017h>
- Lantolf, J., Poehner, M., & Thorne, S. L. (2020). Sociocultural theory and L2 development. In B. VanPatten, G. Keating, & S. Wulff (Eds.), *Theories in second language acquisition* (3rd ed., pp. 223–247). Routledge.