

Articulating Design and Pedagogical Needs for Technology-Integrated Folktales-Based English Materials

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Abstract. The rapid integration of digital technology in English Language Teaching (ELT) has created new opportunities for learner-centered and culturally responsive instruction; however, speaking skills remain underdeveloped in many English as a Foreign Language (EFL) context. This study addresses this gap by articulating teachers' design and pedagogical needs for technology-integrated folktales-based English materials, particularly to support speaking skills, learner autonomy, and cultural awareness. Employing a qualitatively driven needs analysis within the Define stage of a Research and Development (R&D) framework, the study involved a questionnaire administered to 38 junior secondary school English teachers, complemented by semi-structured interviews with nine teachers from urban, suburban, and rural contexts. Descriptive statistics were used to identify dominant needs, while thematic analysis provided interpretive depth. The findings reveal five priority needs: technology integration as a core instructional component, reinforcement of cultural values through folktales, speaking models and structured speaking practice, preference for visual and simple design, and the need for adaptation of existing materials. The study highlights that teachers prioritize pedagogically meaningful, user-friendly, and culturally grounded materials over technologically complex systems. These findings contribute theoretical, pedagogical, and methodological insights for developing context-sensitive, speaking-oriented digital English materials grounded in local cultural narratives.

Keywords: technology-integrated ELT; folktales-based materials; speaking skills; needs analysis; cultural values.

Introduction

In recent years, English language teaching (ELT) has undergone significant transformation due to the rapid advancement of digital technology and the growing demand for learner-centered instruction. Technology integration has reshaped how English is taught and learned, enabling more flexible, interactive, and personalized learning experiences (AbdAlgane & Ali, 2024; Hafidurrahman, 2024; Pérez-Jorge et al., 2025). In the context of secondary education, digital materials are increasingly expected not only to support language acquisition but also to foster higher-order skills, learner autonomy, and meaningful engagement with content (Günerhan et al., 2025; Salih & Omar, 2024).

Despite these technological advancements, speaking skills remain one of the most challenging aspects of English learning in English as a Foreign Language (EFL) contexts. Learners often experience limited opportunities for oral practice, anxiety in producing spoken language, and insufficient exposure to authentic language models (Dewan & Sharma, 2025;

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Ding & Yusof, 2025; Haque et al., 2025). As a result, many technology-enhanced English programs still struggle to translate digital affordances into effective speaking-oriented pedagogy.

Recent studies emphasize that technology alone does not automatically improve speaking proficiency; rather, its effectiveness depends on pedagogically grounded design that integrates modeling, scaffolding, and opportunities for meaningful oral interaction (Cao, 2025; Pinandhita, 2025). Digital tools such as audio-supported materials, interactive tasks, and recording features have shown positive effects on pronunciation accuracy, fluency, and learner confidence when aligned with clear instructional goals (Xodabande et al., 2025; Дмитренко & Panchenko, 2025).

Alongside technological considerations, cultural relevance has emerged as a critical dimension of effective English instruction. Scholars argue that culturally responsive materials help learners connect linguistic forms with meaningful social and cultural contexts, thereby increasing motivation and engagement (Demir & Zaimoğlu, 2025; Ober et al., 2023; Apriani et al., 2022). In multilingual and multicultural settings, locally grounded content is particularly important for sustaining learners' identity and sense of belonging while learning a global language.

Folktales represent a culturally rich and pedagogically versatile resource for English learning. As narrative texts, folktales offer clear structures, moral messages, and familiar storylines that can support vocabulary development, grammatical awareness, and discourse competence (Edi et al., 2025; S & Bhuvanewari, 2023; Yumnam, 2023). Moreover, folktales allow learners to engage with English through culturally meaningful narratives rather than decontextualized language exercises.

Over the past five years, research on folktale-based and narrative-based learning has expanded, particularly in relation to reading comprehension, vocabulary acquisition, and cultural awareness (Wiysahnyuy & Valentine, 2023; Yumnam, 2023). Several studies report that folktales enhance learners' motivation and intercultural sensitivity by connecting language learning with moral and cultural values embedded in local stories (Mantra & Gana, 2018; Mishra & Satpathy, 2020).

However, much of the existing literature focuses predominantly on receptive skills such as reading and listening, while productive skills, particularly speaking, receive comparatively less attention (Fan et al., 2025). When speaking activities are included, they are often limited to simple retelling tasks without systematic scaffolding or technological support. This indicates a persistent gap between the cultural potential of folktales and their pedagogical realization for oral language development.

Recent studies have begun to explore digital storytelling and multimedia-based folktale instruction, suggesting that technology can enhance learner engagement and comprehension (Belda-Medina & Goddard, 2024; Mandarani & Megawati, 2024). Nevertheless, these studies rarely examine how technology-integrated folktale materials should be designed based on teachers' pedagogical needs, contextual constraints, and classroom realities, particularly in diverse geographical settings.

Needs analysis is widely recognized as a foundational stage in instructional material development, especially within research and development (R&D) frameworks (Nemo et al., 2025; Lestari & Sukarni, 2024). By systematically examining teachers' and learners' needs, researchers can ensure that developed materials are pedagogically relevant, contextually appropriate, and practically usable. In technology-integrated ELT, needs analysis becomes even more critical due to variations in digital literacy, infrastructure, and instructional goals.

Despite its importance, relatively few studies have conducted in-depth needs analysis focusing on technology-integrated, culturally grounded English materials, particularly those based on folktales (Astutik et al., 2025; Nemo et al., 2025; Yousofi et al., 2025). Existing research often treats technology, culture, and language skills as separate dimensions rather than examining their intersection from a pedagogical design perspective. Consequently, there

is limited empirical evidence articulating what teachers actually need when implementing folktale-based digital English materials.

In many EFL contexts, including Indonesia and other multilingual societies, teachers face challenges related to limited instructional time, uneven access to technology, and diverse learner proficiency levels (Astri et al., 2024; Reza et al., 2023; Sukma et al., 2023). These challenges underscore the necessity of context-sensitive material design that balances technological innovation with pedagogical practicality and cultural relevance.

Responding to these gaps, the present study offers novelty by articulating design and pedagogical needs for technology-integrated, folktale-based English materials from teachers' perspectives. Rather than evaluating the effectiveness of a finished product, this study foregrounds the define stage of material development, providing empirical insights into what features, activities, and technological supports are required to enhance speaking skills, learner autonomy, and cultural awareness.

The primary aim of this study is to systematically articulate teachers' design and pedagogical needs in developing technology-integrated folktale-based English materials. By synthesizing qualitative data, the study seeks to identify core thematic needs related to technology integration, cultural values, material design, and speaking-oriented pedagogy. Guided by this aim, the study addresses the following research question: What design and pedagogical needs do teachers identify for the development of technology-integrated folktale-based English materials to support speaking skills, autonomous learning, and cultural awareness?

This study contributes to the field of ELT in three key ways. Theoretically, it extends research on culturally responsive and technology-enhanced language learning by foregrounding teachers' articulated needs. Pedagogically, it provides practical design implications for developing speaking-oriented folktale-based materials. Methodologically, it demonstrates the value of needs analysis within R&D frameworks as a foundation for sustainable and contextually relevant material development.

Theoretical Framework

Technology Integration and Speaking-Oriented Pedagogy in EFL

Technology integration has become a central component of contemporary English as a Foreign Language (EFL) instruction, particularly in supporting learner engagement, autonomy, and access to authentic language input. Recent studies indicate that digital tools such as mobile applications, multimedia resources, and interactive platforms enable more flexible and learner-centered learning environments (AbdAlgane & Ali, 2024; Hafidurrahman, 2024; Pérez-Jorge et al., 2025). In EFL classrooms, technology is increasingly viewed not merely as a delivery medium, but as a pedagogical resource that reshapes instructional practices.

Nevertheless, research consistently shows that technology alone does not automatically lead to improved speaking proficiency. The effectiveness of technology-enhanced instruction depends on pedagogically grounded design that integrates modeling, scaffolding, and structured opportunities for oral interaction (Cao, 2025; Pinandhita, 2025). Digital features such as audio pronunciation models, interactive speaking tasks, and voice-recording tools have demonstrated positive effects on learners' pronunciation accuracy, fluency, and confidence when aligned with clear instructional goals (Xodabande et al., 2025; Ding & Yusof, 2025).

Recent studies further highlight the role of technology in supporting autonomous learning and reducing affective barriers in speaking. AI-driven and technology-assisted speaking environments allow learners to practice oral production in low-anxiety settings while receiving immediate or self-directed feedback (Zhang, 2025; Haque et al., 2025). However, teachers continue to report contextual challenges related to uneven digital literacy, limited infrastructure, and misalignment between technology use and curricular objectives (Yousofi et

al., 2025; Reza et al., 2023). These challenges underscore the need for technology-integrated materials that are pedagogically purposeful, accessible, and responsive to classroom realities.

Folktales and Cultural Values in English Language Teaching

Alongside technological considerations, cultural relevance has emerged as a key dimension of effective EFL instruction. Culturally responsive pedagogy emphasizes the integration of learners' cultural backgrounds into instructional materials to enhance motivation, engagement, and identity affirmation (Ober et al., 2023; Demir & Zaimoğlu, 2025). Within this perspective, folktales are increasingly recognized as culturally rich and pedagogically versatile resources for English learning.

Empirical studies demonstrate that folktales support multiple aspects of language development, including vocabulary acquisition, discourse awareness, and cultural understanding (Edi et al., 2025; Yumnam, 2023; Wiysahnyuy & Valentine, 2023). By embedding moral values, local wisdom, and familiar narrative structures, folktales allow learners to engage with English through meaningful cultural contexts rather than decontextualized language exercises. Research conducted in diverse EFL settings further indicates that culturally grounded materials foster intrinsic motivation and positive learning attitudes by connecting language learning with learners' lived experiences (Ratri et al., 2024; Taylor, 2022).

Despite their pedagogical potential, folktale-based materials often prioritize receptive skills such as reading and listening, while productive skills, particularly speaking, receive comparatively less attention (Fan et al., 2025; Suhartawan et al., 2025). When speaking activities are included, they are frequently limited to simple retelling tasks without systematic scaffolding or technological support. This reveals a persistent gap between the cultural richness of folktales and their pedagogical realization for oral language development.

Needs Analysis for Technology-Integrated Folktale-Based Materials

Needs analysis is widely acknowledged as a foundational stage in instructional material development, particularly within Research and Development (R&D) frameworks. Recent studies emphasize that needs analysis ensures materials are pedagogically relevant, contextually appropriate, and aligned with users' instructional practices (Nemo et al., 2025; Lestari & Sukarni, 2024). In technology-integrated EFL contexts, needs analysis becomes especially critical due to variations in infrastructure, digital competence, and instructional priorities.

Teachers play a central role in articulating instructional needs, as they mediate curriculum demands, classroom realities, and learner characteristics. Research suggests that teachers tend to prioritize usability, pedagogical clarity, and alignment with learning objectives over technological sophistication (Barrientos-Moncada et al., 2023; Godsk & Møller, 2024; Li, 2024). These findings indicate that effective digital materials should emphasize simplicity, accessibility, and instructional coherence.

Furthermore, recent literature highlights the importance of content adaptation and localization in material design. Teachers frequently report that existing materials are linguistically complex or culturally distant from learners' experiences, which can hinder comprehension and engagement (Hanifa et al., 2024; Emeklioğlu & Balkır, 2025). Consequently, scholars advocate for deliberate processes of content simplification and contextual adaptation, particularly when transforming culturally rich texts such as folktales into digital formats.

Despite increasing interest in technology-enhanced and culturally grounded EFL materials, relatively few studies have explicitly articulated teachers' design and pedagogical needs at the intersection of technology integration, cultural content, and speaking-oriented pedagogy. Existing research often treats these dimensions separately, leaving limited empirical guidance for integrated material design (Astutik et al., 2025; Yousofi et al., 2025). This gap underscores the importance of needs analysis as a critical foundation for developing

technology-integrated folktale-based English materials that are pedagogically sound, culturally responsive, and contextually feasible.

Material and Method

Research Design

This study was conducted within a Research and Development (R&D) framework, focusing specifically on the Define stage of material development. In accordance with established R&D models in educational research, the Define stage serves to systematically identify instructional gaps and user requirements prior to design prototyping and product validation. Therefore, the present study did not aim to examine instructional effectiveness or test causal relationships, but rather to generate an empirically grounded needs profile to inform subsequent Design and Develop phases.

To achieve this objective, a qualitatively oriented needs analysis was employed as the primary methodological strategy within the Define stage. The qualitative orientation enabled in-depth exploration and interpretation of teachers' perspectives regarding the design and pedagogical features required for technology-integrated folktale-based English materials. To complement and strengthen the interpretive analysis, descriptive survey data (frequencies and percentages) were used to indicate the relative prominence of identified needs.

Thus, R&D functioned as the overarching methodological framework, while qualitative needs analysis constituted the core research approach guiding data collection and analysis in this initial phase. This alignment ensures methodological consistency by positioning the study clearly as Phase 1 of an R&D process aimed at developing context-sensitive instructional materials.

Participants

Participants were English teachers at the junior secondary school (SMP) level, selected through stepwise purposive sampling. From an initial pool of 61 respondents, inclusion criteria were applied based on:

- (1) experience in integrating storytelling or folktales in English teaching,
- (2) minimum teaching experience,
- (3) adequate digital literacy, and
- (4) willingness to provide follow-up clarification.

This process resulted in 38 eligible teacher respondents for the needs analysis survey. To support qualitative depth and contextual clarification, nine teachers representing urban, suburban, and rural contexts were further engaged in short follow-up interviews, who symbolized as T1-T9.

Instruments and Data Collection

Data collection focused exclusively on the Define stage and involved three main instruments.

(1) Questionnaire (Survey)

An online questionnaire was distributed to teachers using Google Forms. The questionnaire contained both closed-ended items (to capture general trends and preferences) and open-ended questions that invited teachers to describe perceived benefits, challenges, and expectations regarding folktale-based and technology-integrated English materials. The survey served as the primary data source, providing both breadth (through multiple respondents) and depth (through open-ended responses).

(2) Follow-up Interviews

Short, semi-structured interviews were conducted with selected teachers to clarify, confirm, and elaborate on questionnaire responses. These interviews were not intended to generate new themes but to enhance the credibility and interpretive accuracy of the survey findings.

Data Analysis

Data analysis was conducted within a qualitatively driven framework, consistent with the study's focus on needs identification in the Define stage of R&D.

The questionnaire generated two types of data. Closed-ended items were analyzed descriptively using frequencies and percentages to summarize general response patterns. These quantitative summaries were used solely to indicate the relative prominence of identified needs, rather than to test relationships or statistical significance. Open-ended questionnaire responses constituted the primary qualitative dataset. These responses were analyzed using manual open coding procedures, including keyword identification, thematic grouping, and the selection of representative excerpts.

Semi-structured interview data were analyzed thematically to deepen interpretation and enhance credibility. Interview findings were used to triangulate and confirm themes emerging from the qualitative survey responses. Thus, while limited descriptive statistics were employed, the overall analytical orientation remained qualitative, with quantitative data serving a supportive and summarizing function.

Trustworthiness

Trustworthiness was ensured through method triangulation (survey of close ended and open ended questionnaires, and interviews) and data source triangulation (teachers from diverse geographical contexts). Preliminary interpretations were cross-checked against interview data to enhance credibility. Detailed descriptions of participants, context, and analytical procedures were provided to support transferability, while an audit trail of coding and analytic decisions strengthened dependability and confirmability.

Results and Discussion

Results

Participant Profile

From an initial pool of 61 respondents, a stepwise purposive sampling process resulted in 38 eligible English teachers who met the inclusion criteria related to storytelling experience, teaching experience, digital literacy, and willingness to participate in further inquiry. To ensure geographical representation, nine teachers were purposively selected for follow-up interviews, representing urban (n=3), suburban (n=3), and rural (n=3) contexts. This distribution enabled the study to capture diverse instructional realities and technological access conditions. The participants' profile is presented in the following table.

Table 1.
Participant Profile

Total Respondents	Eligible Survey Participants	Interview Participants	Geographical Representation
61	38	9	Urban (3), Suburban (3), Rural (3)

Table 2.
Participant Characteristics

No	Category	Description
1.	Total survey participants	38 English teachers
2.	Teaching level	Junior secondary school (Grades VIII–IX)
3.	Years of teaching experience	≥ 3 years
4.	Storytelling integration experience	All participants

5. Digital literacy level	Adequate for online and multimedia-based instruction
6. Interview participants	9 teachers
7. Geographical distribution	Urban (3), Suburban (3), Rural (3)

Identified Design and Pedagogical Needs

Analysis of closed-ended questionnaire items provided descriptive indications of the relative prominence of teachers' needs, while open-ended responses and interviews offered interpretive depth. The analysis resulted in five interrelated themes representing teachers' articulated design and pedagogical needs for technology-integrated folktale-based English materials. These summaries function as supportive evidence within the broader thematic analysis.

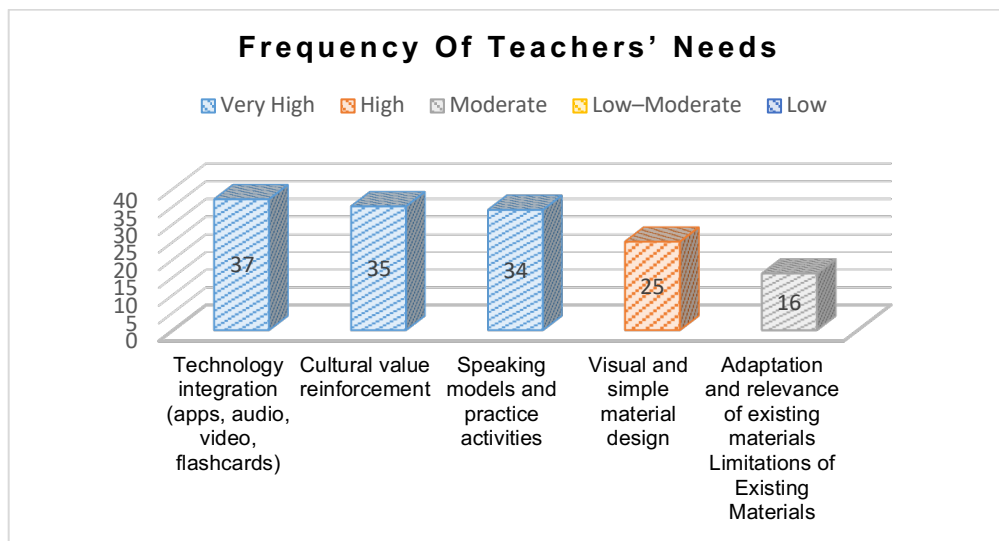


Diagram 1.

Frequency of Teachers' Needs Identified from Closed-Ended Survey Items

The diagram indicates that that technology integration, cultural value reinforcement, and speaking models and practice activities constitute the most dominant needs, each rated at a very high level by the majority of teachers. This pattern suggests that teachers strongly prioritize digital accessibility, culturally meaningful content, and structured opportunities for oral language development in English instruction. Visual and simple material design was also identified as a high priority, highlighting the importance of usability and clarity in supporting learning processes. In contrast, the adaptation and relevance of existing materials received a moderate level of emphasis, indicating that while content contextualization remains important, teachers place greater value on integrating technology, culture, and speaking-oriented pedagogy as core components of effective English materials.

These frequency patterns provide descriptive support for the thematic findings presented below, where teachers' articulated perspectives are examined in greater depth.

1. Technology Integration as a Core Instructional Need (Very High; $f = 37$)

Technology integration emerged as the most dominant need identified by teachers, as reflected in both closed-ended survey responses and qualitative coding. Teachers consistently emphasized that technology should be embedded as a core instructional component, rather than treated as an add-on. Frequently mentioned technological features included interactive videos, audio narration, digital flashcards, e-books, and mobile-based applications.

Teachers perceived technology as a facilitator of autonomous learning, enabling students to access materials beyond classroom time and at their own pace. Several

participants highlighted the importance of offline-accessible features, particularly in contexts with limited internet infrastructure.

Representative excerpts include:

"Interactive videos or learning applications make it easier for students to study anytime and anywhere."

"Offline audio features are very helpful since internet access in our area is still limited."

Beyond accessibility, teachers' responses indicate that technology is expected to support structured and meaningful learning processes. Digital features were viewed as tools for modeling pronunciation, reinforcing comprehension, and enabling repeated practice, rather than as merely attractive presentation formats. This suggests that teachers prioritize pedagogically purposeful integration, where technology directly supports language learning objectives.

Furthermore, the emphasis on offline compatibility and mobile accessibility reflects the practical realities of diverse teaching contexts. Teachers implicitly highlighted that effective technology integration must remain feasible and consistent with infrastructural conditions and students' digital habits. In this sense, technology is positioned not as an innovation for its own sake, but as a pragmatic solution to enhance flexibility, engagement, and instructional continuity across varied educational settings.

2. Reinforcement of Cultural Values through Folktales (Very High; f = 35)

The reinforcement of cultural values was identified as the second most prominent need. Teachers articulated the pedagogical importance of embedding moral values, local wisdom, and cultural identity within English learning materials. Folktales were viewed as culturally meaningful narratives that help learners connect language learning with their sociocultural background.

Representative quotations include:

"Folktales help students learn moral values and local culture at the same time."

"Cultural values in folktales are important to strengthen students' character and identity."

"Stories should reflect students' real cultural environment so they feel closer to the material."

The frequency of this theme suggests that teachers do not perceive folktales merely as narrative texts for linguistic practice, but as vehicles for character education and identity affirmation. By integrating culturally familiar stories, teachers expect students to engage more meaningfully with English, reducing the sense of distance between the target language and their lived experiences. In this regard, cultural grounding is positioned as a motivational bridge that enhances relevance and emotional connection in language learning.

Moreover, teachers' emphasis on cultural alignment indicates a concern that imported or culturally distant materials may limit students' engagement and comprehension. Embedding local cultural elements within English materials is therefore understood not only as preserving identity, but also as supporting pedagogical accessibility and contextual appropriateness. This highlights the role of folktales as both linguistic and socio-cultural resources in material development.

3. Speaking Models and Practice Activities (Very High; f = 34)

Speaking-oriented features were positioned as a central instructional priority. Teachers emphasized the need for pronunciation models, dialog-based speaking tasks, role-play activities, and voice-recording tools to support self-correction. These features were considered essential for improving accuracy, confidence, and fluency in spoken English.

Teachers also indicated the need for progressive scaffolding, moving from modeling and guided practice toward freer speaking activities.

Representative excerpts related to pronunciation modeling and self-correction include:

"Students need audio models to help them improve pronunciation before speaking."

"Voice-recording features allow students to listen to their own pronunciation and correct mistakes."

Representative excerpts related to communicative speaking activities include:

“Dialog and role-play activities based on folktale characters are very effective for speaking practice.”

Although speaking-related needs are sometimes underrepresented in traditional textbooks, teachers in this study clearly positioned speaking as a central learning outcome, emphasizing the importance of instructional features that actively engage students in oral language use.

The high frequency of this theme ($f = 34$) indicates a strong and consistent concern regarding the limited speaking support available in existing materials. Teachers' responses suggest that narrative texts are often used primarily for reading comprehension, with speaking practice left to teacher improvisation rather than systematically embedded in instructional design. As a result, participants expect folktale-based digital materials to integrate explicit and structured speaking components.

Furthermore, the emphasis on modeling and self-recording features reflects teachers' awareness of students' affective barriers in speaking English. By providing guided practice and opportunities for self-monitoring, technology-integrated materials are expected to create safer and more structured environments for oral production. This highlights the need for materials that not only present stories but also transform them into interactive speaking experiences.

4. Preference for Visual, Simple, and Audio-Supported Design (High; $f = 25$)

Teachers expressed a strong preference for visually attractive, simple, and easy-to-navigate materials supported by audio pronunciation guides. Simplicity and clarity were viewed as essential for accommodating learners with varying proficiency levels and digital literacy backgrounds.

A representative quotation capturing this preference is as follows:

“Learning materials should be simple and not too long. Visuals and audio help students understand the story better, and a clear, simple interface allows students to focus on learning rather than on operating the application.”

Teachers emphasized that simplicity reduces cognitive burden and enhances focus on linguistic content. Participants noted that overly dense texts, excessive on-screen features, or complex navigation structures may distract learners from the main learning objectives. In this regard, visual elements such as illustrations, icons, and highlighted keywords were perceived not as decorative additions, but as scaffolding tools that support comprehension and sustain attention.

Additional responses further illustrate this concern:

“Students get confused if there are too many menus or features in one page.”

“Pictures and short explanations make it easier for students to follow the story.”

These responses indicate that teachers associate effective design with clarity, coherence, and manageable information load. The emphasis on audio support also suggests the need for multimodal reinforcement, particularly in helping students connect written narrative texts with pronunciation models. Overall, teachers' preferences highlight that usability and instructional simplicity are considered essential design principles in the development of technology-integrated folktale materials.

5. Limitations of Existing Folktale-Based Materials (Moderate; $f = 16$)

The final theme captures teachers' critical reflections on the limitations of folktale-based English materials currently available in classrooms. Rather than focusing on desired features, teachers in this theme highlighted instructional constraints that hinder effective learning. These constraints primarily relate to linguistic complexity, contextual distance, and insufficient pedagogical adaptation to students' actual proficiency levels and lived experiences.

Teachers reported that many folktale texts contain vocabulary that exceeds students' language competence, which can impede comprehension and reduce learner confidence. In addition, stories were often perceived as detached from students' social and cultural realities,

limiting their potential to foster meaningful engagement. The lack of systematic adaptation, both linguistically and culturally, was seen as a key factor contributing to these challenges. Representative excerpts include:

"The vocabulary in folktale texts is often too difficult for students."

"Stories need to be adapted to students' level and daily context."

"Some folktales are culturally distant and not familiar to students."

Although this theme appeared with moderate frequency ($f = 16$), the responses reveal substantive concerns regarding instructional feasibility. Teachers indicated that without vocabulary simplification, glossaries, or graded language adjustments, students may struggle to comprehend the narrative before engaging in higher-order tasks such as speaking or discussion. In such cases, the instructional focus shifts from communication to mere decoding of difficult words.

Furthermore, teachers suggested that cultural distance can weaken students' emotional connection to the text. When stories are not aligned with students' everyday experiences or local cultural references, learners may perceive them as abstract or irrelevant. These responses suggest that effective folktale-based materials require deliberate processes of linguistic grading and contextual localization prior to digital enhancement. In other words, technological integration alone cannot compensate for inadequately adapted content.

Contextual Validation of Identified Themes

To enhance contextual depth and strengthen the credibility of the identified themes, follow-up semi-structured interviews were conducted with nine English teachers (T1–T9) representing urban (T1–T3), suburban (T4–T6), and rural (T7–T9) teaching contexts. These interviews were designed to validate and elaborate on the needs previously identified from questionnaire responses, rather than to generate separate findings.

Across contexts, the interview insights consistently reinforced the dominant themes, particularly those related to technology integration, cultural relevance, and speaking-oriented pedagogy. Teachers emphasized that existing materials do not adequately support students' speaking development or autonomous learning, especially in the teaching of narrative texts.

Teachers from rural and suburban contexts (T4–T9) highlighted infrastructural constraints, particularly unstable internet access. As a result, they emphasized the importance of offline-accessible features, such as downloadable audio files and low-bandwidth digital materials:

"In our school, internet access is still limited, so offline audio or materials that can be used without internet are very important." (T7)

In contrast, teachers from urban contexts (T1–T3) focused more on mobile-based learning and interactive features, noting that students are already familiar with smartphones and digital applications:

"Students are more motivated when learning materials are accessible through their mobile phones and include interactive features." (T2)

Despite these contextual differences, all participants shared a common concern regarding the lack of structured speaking opportunities in existing materials. Teachers reported that narrative texts are often used only for reading or translation activities, leaving speaking practice to be improvised by teachers rather than systematically supported by materials:

"Narrative texts are mostly used for reading and answering questions, but there are very few activities that really train students to speak." (T5)

Importantly, interview data revealed that teachers do not seek technologically sophisticated or complex systems. Instead, they emphasized the need for pedagogically meaningful, user-friendly, and culturally grounded materials that align with classroom realities:

"We don't need complicated technology. What we need are simple materials that really help students practice speaking and understand cultural values." (T9)

Taken together, these contextual insights confirm that teachers' articulated needs are shaped not only by pedagogical priorities but also by infrastructural and environmental

conditions. This cross-context validation strengthens the credibility of the identified themes and reinforces the importance of designing technology-integrated folktale-based English materials that are flexible, accessible, and instructionally purposeful.

Discussion

The findings demonstrate that teachers prioritize pedagogically purposeful technology integration rather than technological sophistication. Technology is not perceived as a decorative enhancement, but as an instructional infrastructure that supports modeling, repetition, accessibility, and autonomous learning. This pragmatic orientation aligns with previous research emphasizing that technology integration in language learning is most effective when aligned with pedagogical goals rather than technological novelty (Apriani et al., 2026; Mulyani et al., 2025). Teachers' emphasis on offline compatibility further reflects the importance of context-sensitive implementation in diverse infrastructural settings.

The strong emphasis on cultural value reinforcement underscores the role of culturally grounded narratives in fostering learner engagement and identity affirmation in EFL contexts. Folktales are positioned not merely as reading texts but as culturally embedded pedagogical resources. This finding resonates with studies highlighting the integration of local culture as a means to enhance relevance, motivation, and contextual appropriateness in English learning (Edi et al., 2025; Ratri et al., 2024). Moreover, as suggested by Wiysahnyuy and Valentine (2023), culturally responsive materials function as pedagogical bridges that connect linguistic development with sociocultural identity formation.

Importantly, speaking-oriented needs emerged as a central concern. The demand for pronunciation modeling, structured scaffolding, dialog-based tasks, and voice-recording features indicates persistent gaps in oral language instruction within narrative-based learning. These findings support prior research emphasizing the importance of structured speaking scaffolds and technology-assisted modeling to improve fluency and learner confidence (Quispe-Vargas et al., 2024; Zhang, 2025). Teachers' concerns about improvisational speaking practice also echo the broader challenge identified by Nallamuthu and S.N.S (2025), who argue that speaking instruction requires systematic design rather than incidental classroom implementation.

The preference for simple, visually supported, and audio-enhanced design reflects concerns related to cognitive accessibility and learner-centered usability. Teachers' emphasis on reducing complexity aligns with instructional design principles that warn against excessive cognitive load in technology-enhanced learning environments (Refat et al., 2025; Schorr et al., 2024). Furthermore, the prioritization of intuitive interfaces over multifunctional systems supports the argument that usability and pedagogical coherence are central to effective digital material development (Li, 2024; Zhou et al., 2024).

Finally, teachers' reflections on the limitations of existing folktale-based materials highlight the importance of linguistic grading and contextual localization. The findings suggest that technological enhancement alone cannot compensate for inadequately adapted content. Instead, effective material development requires deliberate transformation processes that ensure both linguistic accessibility and cultural alignment.

Taken together, the articulated needs provide a grounded and empirically supported foundation for the subsequent Design and Develop stages within the R&D framework. By foregrounding teachers' contextual realities and pedagogical priorities, this study strengthens the argument that sustainable innovation in ELT materials must integrate technology, culture, and speaking pedagogy in a coherent and contextually responsive manner.

Conclusion

This study set out to articulate teachers' design and pedagogical needs for the development of technology-integrated folktale-based English materials, with particular attention to supporting speaking skills, autonomous learning, and cultural awareness. Guided

by a qualitatively driven needs analysis within the Define stage of an R&D framework, the findings provide a clear answer to the research question by revealing five interrelated priority areas identified by teachers.

The results indicate that technology integration, reinforcement of cultural values, and speaking models and practice activities constitute the most dominant needs. Teachers consistently emphasized that technology should function as a core instructional component that enables flexible access, learner autonomy, and meaningful engagement, rather than as a supplementary or decorative feature. At the same time, folktales were viewed as culturally responsive pedagogical resources that bridge English learning with students' sociocultural identities and moral values. Speaking-oriented needs, particularly the provision of audio models, dialog-based tasks, role-play activities, and voice-recording features, were positioned as central to addressing long-standing gaps in oral language instruction.

In addition, teachers highlighted the importance of visual, simple, and audio-supported design, underscoring usability and cognitive accessibility as key design principles. Although identified with moderate frequency, limitations of existing folktale-based materials, such as linguistic complexity and lack of contextual relevance, further reinforce the need for careful content adaptation prior to digital transformation.

This study contributes to the field of English Language Teaching in three main ways. Theoretically, it strengthens the intersection of technology-enhanced learning and culturally responsive pedagogy by foregrounding teachers' articulated needs. Pedagogically, it provides empirically grounded insights to inform the design of speaking-oriented, culturally meaningful digital materials. Methodologically, it demonstrates the value of needs analysis at the Define stage of R&D as a critical foundation for sustainable, context-sensitive material development.

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References

- AbdAlgame, M., & Ali, R. (2024). *Strategies for e-learning in teaching English as a foreign language: Digital pathways*. Cambridge Scholars Publishing.
- Apriani, E., Sanjaya, H. K., Dubey, S. B., & Muthmainnah, M. (2026). TEACHERS' EFFORTS IN APPLYING FORMATIVE ASSESSMENT IN ENGLISH INSTRUCTION FOR EFL ELEMENTARY STUDENTS. *English Community Journal*, 10(1), 41-58. <https://doi.org/10.32502/ecj.v10i1.10929>
- Apriani, E., Santiana, S., & Harmi, H. (2022). Investigating the role of ICT toward students' higher order thinking in writing skills at Islamic university students. *Al-Ishlah: Jurnal Pendidikan*, 14(2), 2213-2224. <https://doi.org/10.35445/alishlah.v14i2.2260>
- Astri, Z., Noni, N., & Halim, N. D. A. (2024). Integrating digital learning in English reading classes: Experiences of Indonesian higher education lecturers. *Seltics: Journal Scope of English Language Teaching, Literature and Linguistics*, 7(1), 1. <https://doi.org/10.46918/seltics.v7i1.2239>
- Astutik, Y., Hartono, R., Saleh, M., & Widiati, U. (2025). Development and validation of English graded readers' e-books based on folklores for extensive reading classes for university students. *English Review: Journal of English Education*, 13(3), 1043. <https://doi.org/10.25134/5kx7ss71>

- Barrientos-Moncada, M. I., Carvajal-Castaño, N. A., & Aristizábal-Cardona, H. S. (2023). EFL teacher professional development needs: Voices from the periphery. *HOW Journal*, 30(2), 92–112. <https://doi.org/10.19183/how.30.2.761>
- Belda-Medina, J., & Goddard, M. B. (2024). AI-driven digital storytelling: A strategy for creating English as a foreign language (EFL) materials. *International Journal of Linguistics Studies*, 4(1). <https://doi.org/10.32996/ijls.2024.4.1.4>
- Cao, L. T. X. (2025). The effects of technology-assisted tasks on students' affect and autonomy: A case study in EFL speaking classes in Vietnam. *Asian-Pacific Journal of Second and Foreign Language Education*, 10(1). <https://doi.org/10.1186/s40862-025-00361-w>
- Carrillo-Yalán, M. E., Vargas-Trujillo, C. E., García-Cuéllar, D. J., Cortez-Llanos, E., & Villarreal-Montenegro, Y. (2024). Flipped classroom based on Bloom's modeling and its impact on autonomous learning experienced by university students. *Academic Journal of Interdisciplinary Studies*, 13(3), 227–240. <https://doi.org/10.36941/ajis-2024-0077>
- Demir, A. N., & Zaimoğlu, S. (2025). A bibliometric analysis of the role of culture in English language teaching from 2014 to 2024. *Van Yüzüncü Yıl Üniversitesi Eğitim Fakültesi Dergisi*, 22(2), 660–687. <https://doi.org/10.33711/yyuefd.1624751>
- Dewan, M. S., & Sharma, B. D. (2025). Enhancing oral communication in English as a second language. *Journal of Tikapur Multiple Campus*, 8, 18. <https://doi.org/10.3126/jotmc.v8i8.75949>
- Ding, D., & Yusof, A. M. (2025). Investigating the role of AI-powered conversation bots in enhancing L2 speaking skills and reducing speaking anxiety: A mixed-methods study. *Humanities and Social Sciences Communications*, 12(1). <https://doi.org/10.1057/s41599-025-05550-z>
- Edi, S., Siahaan, L. H., Agustin, I., Alifya, C., Aryaningsih, N. N., & Alifah, J. A. (2025). Developing culture-based EFL modules: West Javanese folklore for enhancing student engagement in senior high school. *English Review: Journal of English Education*, 13(3), 1081–1094. <https://doi.org/10.25134/8bdpv120>
- Emeklioğlu, S., & Balkır, N. B. (2025). Localisation in language learning: A qualitative study on EFL instructors' perspectives on culturally familiar content. *Language, Culture and Curriculum*, 38(1), 1–17. <https://doi.org/10.1080/07908318.2025.2488894>
- Fan, L. H. M., Cheng, G., & Yan, N. (2025). Assessing local cultural awareness in university EFL learners: A Delphi and AHP-based index framework. *PLOS ONE*, 20(10). <https://doi.org/10.1371/journal.pone.0332233>
- Godsk, M., & Møller, K. L. (2024). Engaging students in higher education with educational technology. *Education and Information Technologies*, 30(3), 2941–2960. <https://doi.org/10.1007/s10639-024-12901-x>
- Günerhan, E. N., Atasoy, Ş. K., & Gürlen, E. (2025). Beyond classrooms: High school students' experiences with digital competence and English language development in eTwinning projects. *International Journal of Contemporary Educational Research*, 12(3), 244. <https://doi.org/10.52380/ijcer.2025.12.3.835>
- Hafidurrahman, M. (2024). Innovation in English language teaching: The implementation of digital technology in the classroom. *Indo-MathEdu Intellectuals Journal*, 5(6), 7004. <https://doi.org/10.54373/imeij.v5i6.2042>
- Hanifa, R., Yusuf, F. N., Yusra, S. R., & Suherdi, D. (2024). Adapting EFL materials and its influences on Indonesian secondary school students' language learning. *Asian-Pacific Journal of Second and Foreign Language Education*, 9(1), Article 7. <https://doi.org/10.1186/s40862-024-00297-7>
- Haque, M. N., Dahal, N., Hasan, M. K., Manandhar, N. K., & Sharmin, S. (2025). Impact of activity types and speaking hours on spoken English fluency: A comparative study in Bangladeshi tertiary classes. *Frontiers in Education*, 10. <https://doi.org/10.3389/educ.2025.1639602>

- Lestari, E., & Sukarni, S. (2024). A holistic needs analysis for developing critical reading material to enhance EFL reading proficiency. *Lensa: Kajian Kebahasaan, Kesusastraan dan Budaya*, 14(1), 24–38. <https://doi.org/10.26714/lensa.14.1.2024.24-38>
- Mandarani, V., & Megawati, F. (2024). Transforming literary texts: A multiliteracies approach to engaging digital narratives. *English Review: Journal of English Education*, 12(2), 419. <https://doi.org/10.25134/erjee.v12i2.9530>
- Mantra, I. B. N., & Gana, K. D. G. A. (2018). Folktales as meaningful cultural and linguistic resources to improve students' reading skills. *Lingua Scientia*, 25(2), 83. <https://doi.org/10.23887/lis.v25i2.18827>
- Mishra, P., & Satpathy, S. P. (2020). Genre of folk narratives as rich linguistic resource in acquiring English language competence for young learners. *Rupkatha Journal on Interdisciplinary Studies in Humanities*, 12(1). <https://doi.org/10.21659/rupkatha.v12n1.08>
- Munajah, R., Sumantri, M. S., & Yufiarti, Y. (2023). Teachers' perceptions on the need to use digital storytelling based on local wisdom to improve writing skills. *South African Journal of Childhood Education*, 13(1), Article 1103. <https://doi.org/10.4102/sajce.v13i1.1314>
- Nallamuthu, P., & S. N. S., G. (2025). Navigating challenges and solutions in English as a second language speaking instruction: Insights from teachers' perspectives. *World Journal of English Language*, 16(2), 159–170. <https://doi.org/10.5430/wjel.v16n2p159>
- Nemo, M. L., Rinantanti, Y., Wabiser, Y. D., Kobepa, N., Sobolim, A. D., & Daud, E. B. (2025). A needs analysis of basic reading instruction for university-level EFL students. *JOLLT Journal of Languages and Language Teaching*, 13(4), 1615–1630. <https://doi.org/10.33394/jollt.v13i4.15702>
- Ober, T., Lehman, B., Gooch, R. M., Oluwalana, O., Solyst, J., Phelps, G., & Hamilton, L. S. (2023). Culturally responsive personalized learning: Recommendations for a working definition and framework. *ETS Research Report Series*, 2023(1), 1. <https://doi.org/10.1002/ets2.12372>
- Pérez-Jorge, D., Olmos-Raya, E., Contreras, A. I. G., & Pérez, I. P. (2025). Technologies applied to education in the learning of English as a second language. *Frontiers in Education*, 10. <https://doi.org/10.3389/feduc.2025.1481708>
- Pinandhita, F. (2025). Integrating digital tools and learning strategies to enhance speaking proficiency: Evidence from a mixed-methods study in Indonesian EFL universities. *EDUKASIA: Jurnal Pendidikan dan Pembelajaran*, 6(2), 1003. <https://doi.org/10.62775/edukasia.v6i2.1674>
- Quispe-Vargas, M., Cruz, K. M. L.-D. L., Talavera-Mendoza, F., Manzur-Vera, G., Postigo, G. S. P., Turpo-Gebera, O., & Díaz-Zavala, R. (2024). The impact of YouGlish on English speaking competency in higher education. *Journal of Technology and Science Education*, 14(2), 349–365. <https://doi.org/10.3926/jotse.1710>
- Ratri, D. P., Astutik, I., & Jonathans, P. M. (2024). A systematic review on the integration of local culture into English language teaching in Southeast Asia. *Pegem Journal of Education and Instruction*, 14(2), 372–389. <https://doi.org/10.47750/pegegog.14.02.05>
- Refat, N., Dang, T. T., Rahman, M. A., & Lalli, G. (2025). Implementing a comprehensive instructional design framework for technology-enhanced language learning to enhance engagement and reduce cognitive load. *Journal of Language Teaching and Research*, 16(6), 1791–1804. <https://doi.org/10.17507/jltr.1606.01>
- Reza, F., Rohmah, Z., & Abdullah, N. N. (2023). Challenges in implementing Kurikulum Merdeka for EFL teachers. *JEELS (Journal of English Education and Linguistics Studies)*, 10(2), 439. <https://doi.org/10.30762/jeels.v10i2.1899>
- Salih, A. A., & Omar, L. I. (2024). Enhancing EFL learners' engagement in situational language skills through clustered digital materials. *Frontiers in Education*, 9. <https://doi.org/10.3389/feduc.2024.1439104>

- Schorr, I., Plecher, D. A., Eichhorn, C., & Klinker, G. (2024). Foreign language learning using augmented reality environments: A systematic review. *Frontiers in Virtual Reality*, 5, Article 123456. <https://doi.org/10.3389/frvir.2024.1288824>
- Sukma, E., Ramadhan, S., Aldiyah, M. P., & Sihes, A. J. (2023). Challenges in implementing Indonesian language teaching materials in elementary schools. *International Electronic Journal of Elementary Education*. <https://doi.org/10.26822/iejee.2024.327>
- Taylor, C. (2022). Using indigenous folktales as EFL materials to increase foreign language enjoyment and learning motivation of indigenous Taiwanese students. *International Journal of Research in English Education*, 7(2), 50. <https://doi.org/10.52547/ijree.7.2.50>
- Wiysahnyuy, L. F., & Valentine, N. B. (2023). Folktales as indigenous pedagogic tools for educating school children: A mixed-methods study among the Nso of Cameroon. *Frontiers in Psychology*, 14, 1049691. <https://doi.org/10.3389/fpsyg.2023.1049691>
- Xodabande, I., Shiri, S., & Zohrabi, M. (2025). Exploring the impacts of an AI-driven instructional intervention on Iranian EFL learners' pronunciation skill development. *Discover Education*, 4(1). <https://doi.org/10.1007/s44217-025-00782-2>
- Yousofi, R., Golzar, J., & Yacoub, O. (2025). Digital divides and bridges: Equity implications of EdTech in ESL education. *Frontiers in Education*, 10. <https://doi.org/10.3389/educ.2025.1590828>
- Yumnam, R. (2023). Using folktales in ESL classrooms. *Journal of the Faculty of Education*, 7(17), 27. <https://doi.org/10.60037/edu.v1i17.1176>
- Zhang, X. (2025). Enhancing oral English learning through AI: A case study of AI-driven speaking applications. *Frontiers in Psychology*, 16, 1595818. <https://doi.org/10.3389/fpsyg.2025.1595818>
- Zhou, K., Jin, F., Li, W., Song, Z., Huang, X., & Lin, C. (2024). The design of technology-enhanced vocabulary learning: A systematic review. *Education and Information Technologies*, 29(5), 12423–12445. <https://doi.org/10.1007/s10639-023-12423-y>

