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Enhancing Literature Learning through AI-Generated Audiobook: An ADDIE-Based Development Study

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ABSTRACT: *Literature courses in German as a foreign language often struggle with low reading motivation, limited listening input, and misalignment between textual complexity and learners' proficiency. This study reports the design, development, and classroom piloting of an AI-generated audiobook based on an original novella written to the CEFR A2 level, intended to enhance literary comprehension in Literatur im Deutschunterricht. Guided by the ADDIE model, we conducted a needs analysis with lecturers and undergraduates, specified narration parameters (rate, prosody, clarity), and produced chaptered audio using a state-of-the-art text-to-speech platform. The audiobook was implemented in an undergraduate literature module and evaluated through expert review, questionnaires, and pre-/post-tests on listening comprehension and vocabulary. Findings indicate improved listening performance, stronger pronunciation modelling, and higher learner engagement, while also revealing constraints typical of synthetic narration (e.g., fine-grained emotional nuance and sentence-level pausing), which required targeted script and timing adjustments. The study demonstrates a practical pathway for integrating AI-based audiobooks into literature instruction in resource-constrained contexts, reducing instructor workload and widening access to authentic-sounding input. We discuss implications for scalable adoption and propose future work to refine prosodic control and extend the approach to additional genres and proficiency bands.*

KEYWORDS - *ADDIE model, AI-generated audiobook, CEFR A2, German as a foreign language, higher education, literature teaching, pronunciation modelling,*

I. INTRODUCTION

In the teaching of German as a foreign language, literary texts serve as a vital bridge between linguistic competence and cultural understanding. They enrich learners' vocabulary, foster interpretive and critical thinking skills, and cultivate intercultural awareness. However, literature instruction often faces persistent challenges. Learners may show low interest in reading, struggle with the density and complexity of authentic texts, or lack sufficient listening input to grasp pronunciation and prosody. In Indonesia in particular, literature classes are frequently constrained by limited resources and remain reliant on conventional methods such as reading aloud, translation, and teacher-led discussion. Such practices do not adequately address the needs of diverse learners, many of whom find texts either overly demanding or insufficiently engaging.

In recent years, the advancement of artificial intelligence (AI) technologies has created new opportunities to reimagine teaching practices. Of particular relevance is the rise of text-to-speech (TTS) platforms capable of

producing natural-sounding, expressive narration. AI-generated audiobooks offer learners auditory models of authentic pronunciation, rhythm, and intonation while providing multimodal input that supports comprehension and retention. This aligns with Mayer's (2009) [1] multimedia learning theory, which demonstrates that learning improves when information is delivered through both visual and auditory channels. Despite these pedagogical benefits, the use of audiobooks (*Hörbücher*) in literature instruction within Indonesian universities remains rare.

To address these issues, this study presents the development of an AI-based audiobook derived from *Das verschwundene Tagebuch*[2], an original novella authored specifically for learners at the CEFR A2 level. Unlike most existing literary works, which are often linguistically dense and culturally remote, this text was intentionally crafted with lexical and syntactic simplicity while retaining narrative complexity. This design ensures accessibility for learners at the elementary-intermediate threshold, fostering both reading and listening development. For narration, ElevenLabs was employed to produce consistent, expressive, near-native German speech, thereby reducing instructors' workload while offering learners high-quality audio input.

The production of such a learning medium, however, cannot rely solely on technology. A structured, pedagogically grounded process is essential. Accordingly, the study adopts the ADDIE model (Analysis, Design, Development, Implementation, Evaluation), a widely recognised framework in instructional design (Branch, 2009)[3]. This systematic approach ensures that learner needs and curricular objectives remain central throughout development and allows for iterative refinement of the product. Each stage of the ADDIE model contributed to the creation of an audiobook that is both technically robust and pedagogically sound.

This article thus aims to document the development process, evaluate the audiobook's impact on comprehension and engagement, and critically reflect on the affordances and constraints of AI-generated narration in literature teaching. In doing so, it seeks to contribute to the growing body of work on technology-enhanced language education, with particular emphasis on literature instruction in contexts where authentic resources are scarce.

II. LITERATURE REVIEW

II.1 LITERATURE IN GERMAN LANGUAGE EDUCATION

Literature occupies a central role in German language curricula, as it enriches vocabulary and exposes learners to different cultural, philosophical, and historical perspectives. In foreign language education more broadly, literary texts serve as authentic linguistic input and foster intercultural competence (Kramsch, 1993; Thaler, 2016)[4;5]. Within German departments in Indonesian universities, literature typically appears in compulsory modules such as *Aktuelle Literatur*, *Landeskunde*, or *Literatur im Deutschunterricht*. Yet, despite its curricular significance, instruction often remains conventional, relying heavily on printed anthologies, translation, and teacher-led discussion. These practices have pedagogical value but do not adequately address the expectations of today's digital-native learners, who prefer interactive and multimodal environments (Prensky, 2001)[6].

Recent scholarship points to a mismatch between the linguistic density of canonical German texts and the proficiency of learners at the A2–B1 threshold. Such complexity can limit comprehension, discourage engagement, and result in superficial analysis. Consequently, scholars have advocated for multimodal approaches that integrate digital resources, including audio-visual media and adaptive tools, to scaffold literary learning (Thaler, 2016) [5]. AI-generated audiobooks may serve to reduce this gap in German courses, as they can be designed to combine linguistic accessibility with narrative depth and to correspond to CEFR proficiency levels. This shift underscores the urgency of aligning literature instruction with the evolving technological and pedagogical landscape of higher education.

II.2 AUDIOBOOKS IN LANGUAGE AND LITERATURE EDUCATION

Audiobooks have increasingly been recognised as valuable tools in foreign language education, particularly for enhancing listening comprehension, motivation, and engagement. Wolf (2018)[7] emphasises that expressive narration enables learners to visualise story content and understand emotional undertones, thereby

deepening narrative comprehension. Empirical evidence also suggests that audiobooks can function as a form of multimodal input, simultaneously supporting listening, vocabulary, and pronunciation skills.

Recent studies confirm these benefits in higher education contexts. Jahn and Lombaerts (2022)[8] found that university students who engaged with audiobooks discovered new ways of accessing readings, such as listening during commutes or combining audio with text to overcome vocabulary gaps. Learners reported incidental vocabulary acquisition and improved motivation, demonstrating that audiobooks can extend learning beyond traditional classroom boundaries. In Asian contexts, Wei (2023)[9] reported that AI-mediated audiobook integration significantly improved learner motivation and language achievement, suggesting that audio-enhanced courses lower barriers of anxiety and foster persistence. These findings complement Guthrie and Wigfield's (2000)[10] framework of motivation in reading, which stresses that learners' emotional engagement with a text enhances their commitment to learning tasks.

Audiobooks also serve as inclusive tools that accommodate auditory learners and those with visual impairments. Mayer's multimedia learning theory further supports their use: students process information more effectively when both auditory and visual channels are engaged. While many commercially available audiobooks are too linguistically advanced for A2–B1 learners, customised or AI-generated audiobooks tailored to proficiency levels represent a promising pedagogical alternative.

II.3 Artificial Intelligence and Text-to-Speech (TTS)

Advancements in artificial intelligence have revolutionised text-to-speech (TTS) technologies, enabling the creation of synthetic voices with near-human intonation, prosody, and emotional nuance. Platforms such as ElevenLabs and Google WaveNet are capable of producing natural-sounding narration, adaptable in pitch, speed, and tone. This development is particularly relevant in foreign language education, particularly where access to native speakers and authentic listening resources remains limited.

Research from 2021 onwards highlights the pedagogical promise of TTS in higher education. Widyana et al. (2022)[11], in a systematic review, concluded that TTS technologies play a practical role in improving language skills, particularly listening and reading fluency. Amin (2024)[12] found that learners perceived AI TTS applications as enjoyable, motivating, and effective for pronunciation practice, helping them grasp both sound-level and intonational features. Further studies have also reported significant gains in listening comprehension when TTS was used to provide immediate auditory feedback, while Zou et al. (2023)[13] argued that AI-mediated personalisation enhances learner engagement through interactive and adaptive features.

Despite these advantages, implementation challenges remain. Studies note that synthetic voices may lack the expressive depth of human narration, especially in conveying irony or subtle emotional states (Jing et al., 2024)[14]. Learners also sometimes perceive TTS voices as less authentic compared to their instructors' speech (Widyana et al., 2022)[11]. These limitations suggest that while TTS cannot fully replace human input, it functions effectively as a scalable supplement to conventional pedagogy. In German language instruction, there is also growing interest in applying AI narration for A2-level learners, indicating that TTS tools are increasingly viewed as practical resources for literature teaching in resource-constrained contexts.

II.4 The ADDIE Model

The ADDIE model – Analysis, Design, Development, Implementation, Evaluation – remains a cornerstone in instructional design, offering a systematic and iterative framework for educational media development (Branch, 2009; Molenda, 2003)[3;15]. Its adaptability ensures alignment between learning objectives, learner needs, and media design, making it particularly suited to technology-enhanced language education.

Recent applications confirm its continuing relevance. Structured design frameworks have been shown to improve learners' engagement with complex literary texts by scaffolding vocabulary and listening comprehension. In technology-driven contexts, the ADDIE model has been employed to validate AI-mediated instructional products, ensuring both pedagogical soundness and usability (Bond et al., 2021; Holmes et al., 2019)[16;17]. Its iterative nature is especially valuable when integrating emerging technologies such as TTS, where continual refinement is necessary to balance technical functionality with pedagogical effectiveness.

In the present study, the ADDIE model provided a structured process for developing and evaluating an AI-generated audiobook for German literature instruction. Each phase – from needs analysis to evaluation – ensured that the final product was linguistically accessible, culturally appropriate, and pedagogically effective for learners at the A2 level.

III. METHODOLOGY

This study employed the ADDIE instructional design model to guide the systematic development of an AI-generated audiobook for German literature instruction. The model comprises five phases – Analysis, Design, Development, Implementation, and Evaluation – which were followed sequentially to ensure pedagogical coherence and practical applicability:

Analysis: The analysis phase identified the learning needs of students in the *Literatur im Deutschunterricht* module. Informal discussions with lecturers and observations of student performance revealed recurring challenges: low motivation to read German texts, limited exposure to authentic listening input, and difficulties engaging with literary material that exceeded the learners' linguistic proficiency. These findings confirmed the need for supplementary resources that combined accessibility with literary value.

Design: In the design phase, the content and structure of the audiobook were planned. An original novella, *Das verschwundene Tagebuch*, was created specifically for A2-level learners, balancing simplified vocabulary and grammar with a coherent and engaging storyline. Decisions were made regarding chapter division, length of audio segments, and alignment with course objectives. Particular attention was given to pacing, clarity, and prosody so that the narration would support both comprehension and pronunciation modelling.

Development: The audiobook was produced using ElevenLabs' text-to-speech platform. Each chapter of the novella was converted into an audio file, with adjustments made to narration speed and pauses for greater intelligibility. Draft versions were reviewed by lecturers, whose feedback informed refinements to timing, pronunciation, and consistency across chapters. The final audiobook was compiled as a set of structured audio files suitable for both classroom integration and independent use.

Implementation: The completed audiobook was introduced into the *Literatur im Deutschunterricht* module. Selected chapters were used in class to accompany reading activities, while others were assigned for independent listening outside class. This integration was intended to increase exposure to spoken German and to make literature more accessible to learners at the A2 level.

Evaluation: Evaluation involved two components. First, expert review by two lecturers assessed the audiobook in terms of linguistic accuracy, suitability for A2 learners, and pedagogical relevance. Second, student feedback was gathered through a short questionnaire focusing on clarity, engagement, and perceived usefulness. Together, these evaluations provided insights into the audiobook's strengths and areas for improvement.

IV. RESULT AND DISCUSSION

IV.1 EXPERT REVIEW

The expert review was conducted by two lecturers of German language and literature who assessed both the novella *Das verschwundene Tagebuch* and its audiobook version. Their evaluation focused on three main aspects: linguistic accuracy, appropriateness for A2-level learners, and pedagogical value. In terms of linguistic accuracy, the reviewers confirmed that the text and narration were consistent with standard German usage. Vocabulary and syntax were considered suitable for learners at the A2 level, though both experts noted that certain idiomatic expressions might require additional explanation in class to avoid misunderstandings. Pronunciation in the audiobook was found to be clear and natural, with intonation patterns approximating authentic speech. One reviewer suggested that a slightly slower narration speed could further support less confident learners, especially during longer descriptive passages.

Regarding learner suitability, the experts agreed that the novella offered a good balance between accessibility and literary quality. The storyline was judged to be engaging and age-appropriate for undergraduate

learners, while the linguistic level ensured comprehensibility without oversimplification. The integration of chapter divisions into shorter audio files was highlighted as a strength, as it allowed instructors to adapt the material flexibly for classroom activities or independent study.

In terms of pedagogical value, the reviewers emphasised that the audiobook has the potential to increase student motivation by providing an alternative to purely text-based literature instruction. They noted that combining reading with listening could foster multimodal learning and help students internalise both content and pronunciation. However, they also pointed out that the audiobook should be complemented with guided activities – such as vocabulary exercises or discussion tasks – in order to maximise learning outcomes.

Overall, the expert review concluded that the AI-generated audiobook is a pedagogically viable resource for the teaching of German literature at the A2 level. The reviewers highlighted its potential to enhance listening comprehension, support pronunciation modelling, and make literary texts more accessible in resource-constrained contexts.

IV.2 STUDENT QUESTIONNAIRE

To complement the expert review, feedback was collected from the 32 student participants through a short questionnaire administered after the implementation of the audiobook in the *Literatur im Deutschunterricht* module. The questionnaire consisted of both closed and open-ended questions, focusing on clarity of narration, engagement with the material, and perceived usefulness for language learning.

In terms of clarity, the majority of students indicated that the audiobook was easy to follow and that the pronunciation was sufficiently clear for their level of proficiency. Several respondents remarked that the steady pace of the narration supported comprehension, although a small number noted that occasional longer sentences required repeated listening for full understanding.

Concerning engagement, students reported that the audiobook increased their motivation to interact with the novella. Many emphasised that listening to the text, rather than only reading it, made the story more vivid and helped them maintain concentration. A few students mentioned that the availability of audio files outside class encouraged them to revisit chapters at their own pace, which they considered a valuable form of independent practice.

With respect to usefulness, participants expressed that the audiobook supported their acquisition of vocabulary and improved their awareness of pronunciation patterns. Some noted that listening alongside reading the text allowed them to notice correspondences between spelling and sound, while others highlighted the role of audio in modelling authentic rhythm and intonation. Nevertheless, a small group felt that the synthetic nature of the narration, while clear, lacked the emotional nuance of human reading.

Overall, student feedback was largely positive. The questionnaire results suggest that the AI-generated audiobook was perceived as a helpful and motivating resource, especially in supporting listening comprehension and pronunciation, while also increasing students' willingness to engage with literary material.

IV.3 LEARNING OUTCOMES

In addition to expert and student evaluations, the effectiveness of the audiobook was explored through pre- and post-tests designed to assess gains in listening comprehension and vocabulary. These tests were administered before and after the implementation of the audiobook in the *Literatur im Deutschunterricht* module. The results indicated improvements in listening comprehension. Students demonstrated greater ability to follow the storyline, identify key details, and infer meaning from context after exposure to the audiobook. Many reported that repeated listening to the same passages helped them develop strategies for understanding longer and more complex sentences.

With regard to vocabulary acquisition, students showed increased familiarity with recurring lexical items from the novella. Several respondents commented that hearing words in context facilitated retention and reinforced connections between written and spoken forms. The audio input also supported the recognition of word stress and pronunciation, which had previously been sources of difficulty.

While the overall outcomes were positive, some limitations were observed. A few students noted that comprehension still depended on the availability of written text alongside the audio, suggesting that the audiobook functioned most effectively as a complement rather than a replacement for reading. Moreover, the lack of expressive variation in certain passages limited the degree to which learners could fully grasp subtle emotional or narrative cues.

Taken together, the pre- and post-test results suggest that the audiobook contributed to measurable improvements in listening comprehension and vocabulary development. At the same time, the findings confirm that such tools work best when integrated with textual support and guided classroom activities.

V. DISCUSSION

The findings of this study highlight the pedagogical potential of AI-generated audiobooks in supporting the teaching of German literature at the A2 level. Both expert reviewers and student participants agreed that the audiobook version of *Das verschwundene Tagebuch* provided a useful and motivating complement to traditional text-based instruction. These results resonate with earlier claims that multimodal approaches can foster deeper engagement with literary texts by addressing diverse learner needs (Thaler, 2016; Mayer, 2009).

The expert review confirmed that the audiobook met essential standards of linguistic accuracy and appropriateness. This is significant in contexts where access to native speakers and authentic audio material remains limited, such as in Indonesian universities. By providing clear pronunciation and natural rhythm, the audiobook modelled spoken German in ways that textbooks alone cannot. This aligns with the principles of pronunciation pedagogy, which emphasise the importance of comprehensible input for phonological development.

Student feedback reinforced these benefits, demonstrating that learners not only perceived the audiobook as clear and useful but also as engaging. Many students described the audio as making the story more vivid and accessible, which echoes research suggesting that listening to literature enhances both comprehension and motivation. At the same time, some students expressed the need for written text alongside the audio, indicating that a multimodal combination of reading and listening remains the most effective approach for learners at this proficiency level.

A further contribution of the audiobook lies in its role in supporting vocabulary acquisition and pronunciation. Students reported that hearing words in context reinforced retention and helped them recognise sound–spelling correspondences. This reflects Mayer's (2009) multimedia learning theory, which argues that comprehension improves when information is processed through both visual and auditory channels. The audiobook allowed learners to engage with the written text and its spoken form simultaneously, thereby deepening their lexical and phonological awareness. Such findings are consistent with prior studies that highlight the value of repeated listening and contextualised exposure for vocabulary development.

Nevertheless, the results also revealed certain limitations. Several students pointed out that the synthetic narration lacked the expressive nuance of human reading, particularly in conveying subtle emotional or narrative cues. This confirms earlier observations that while text-to-speech technologies have reached a high degree of naturalness, they may not fully replicate the richness of human performance. As a result, the audiobook is best positioned not as a replacement for teacher-led activities but as a supplement that extends listening opportunities and supports independent study.

The development process, guided by the ADDIE model, proved crucial in ensuring that the final product was pedagogically sound. The needs analysis identified specific learner challenges, while the design and development phases ensured alignment with A2-level requirements. Feedback loops during development allowed for refinements in pacing and pronunciation, and the evaluation phase provided evidence of both effectiveness and limitations. This structured approach underscores the importance of instructional design models in the integration of emerging technologies into language education.

Beyond the immediate outcomes, this study contributes to wider discussions on how technology can make literature more accessible in foreign language education. In Indonesian universities, German literature courses often struggle with a mismatch between learners' proficiency and the linguistic demands of canonical texts. The audiobook version of *Das verschwundene Tagebuch* demonstrates one way of bridging this gap by

providing a resource that is linguistically aligned with learner competence while retaining narrative quality. This has the potential to enhance students' confidence and willingness to engage with literature, an area often perceived as intimidating by A2-level learners.

At the same time, the findings highlight the importance of positioning such technological innovations within a broader pedagogical framework. Audiobooks can enrich language learning, but their impact depends on careful integration with classroom activities such as guided vocabulary work, comprehension checks, and discussions of cultural or thematic aspects. In this way, the technology does not replace traditional teaching but complements it, contributing to a multimodal learning environment.

Finally, the study opens avenues for further research. Future work could investigate long-term impacts of audiobook use on learners' reading habits and literary competence, as well as its potential application in other language courses and higher proficiency levels. Comparative studies between AI-generated and human-narrated audiobooks would also provide valuable insights into differences in learner perception and effectiveness. Such research would help refine the role of artificial intelligence in literature pedagogy and ensure its sustainable integration into higher education.

VI. CONCLUSION

This study set out to explore the development and implementation of an AI-generated audiobook as a supplementary resource for teaching German literature at the A2 level in an Indonesian university context. Guided by the ADDIE instructional design model, the project produced and evaluated *Das verschwundene Tagebuch*, a novella tailored to the linguistic needs of learners while retaining literary value.

The findings demonstrate that the audiobook was positively received by both experts and students. Expert review confirmed its linguistic accuracy, suitability for A2 learners, and pedagogical relevance, while student feedback highlighted its clarity, motivational value, and contribution to vocabulary and pronunciation development. Pre- and post-test results further indicated improvements in listening comprehension and lexical knowledge, although students continued to rely on the written text to achieve fuller understanding.

At the same time, the study identified limitations that warrant attention. The synthetic narration, while clear and intelligible, lacked the expressive nuance of human reading, which reduced its ability to convey subtle emotional and narrative dimensions. The audiobook was therefore most effective when integrated with complementary classroom activities, such as guided discussions and vocabulary exercises, rather than used as a stand-alone tool.

Overall, the project illustrates the potential of AI-generated audiobooks to make literary texts more accessible to learners at lower proficiency levels, particularly in contexts where exposure to authentic spoken German is limited. By combining narrative engagement with technological innovation, the audiobook provided a multimodal resource that supported comprehension, vocabulary acquisition, and motivation.

Future research should investigate the long-term impact of such resources on learners' reading and listening habits, as well as their applicability in higher proficiency levels and other language courses. Comparative studies involving human-narrated and AI-generated audiobooks would also shed further light on differences in learner perception and effectiveness.

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