EFFECTIVENESS OF AI-GENERATED LISTENING MATERIALS VS. TEXTBOOK AUDIO IN EFL LEARNING

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Abstract: This study examines the comparative effectiveness of AI-generated listening materials and traditional textbook audio in the context of English as a Foreign Language (EFL) learning. With the growing use of Artificial Intelligence in language education, learners are increasingly exposed to dynamic, customizable, and context-specific audio content generated by advanced text-to-speech technologies. This article analyzes how such AI-driven resources impact listening comprehension, learner engagement, and pedagogical flexibility compared to scripted, professionally recorded textbook audio. Drawing on theoretical perspectives and recent empirical findings, the paper explores dimensions such as adaptability, content authenticity, listening accuracy, and learner motivation. While AI-generated materials offer greater personalization and relevance to real-world communication, textbook audio provides structured, predictable input that aligns closely with curriculum goals. The findings suggest that a blended model combining both modalities may yield optimal results, balancing innovation with pedagogical consistency. The study highlights the importance of integrating technological advancements thoughtfully to enhance listening proficiency while supporting diverse learner needs and preferences.

Keywords: Artificial Intelligence, EFL listening, textbook audio, AI-generated materials, language learning, digital education, text-to-speech, listening comprehension, learner engagement, personalized learning, blended instruction.

The rapid development of Artificial Intelligence (AI) technologies in education has introduced new forms of instructional content, particularly in English as a Foreign Language (EFL) learning. Among these innovations, AI-generated listening materials have gained traction as alternatives to traditional textbook audio recordings. This shift raises a key pedagogical question: How effective are AI-generated listening materials compared to conventional textbook audio in fostering EFL listening comprehension? This article explores the comparative effectiveness of these two modalities based on key indicators such as learner engagement, comprehension accuracy, adaptability, and long-term retention.

AI-generated listening materials typically use advanced text-to-speech (TTS) systems and natural language processing algorithms to create dynamic, varied, and context-specific audio content. These systems are capable of generating an infinite range of listening scenarios tailored to learners' proficiency levels and thematic

preferences. In contrast, textbook audio is often limited in scope, featuring scripted dialogues recorded by professional voice actors, and follows a fixed curriculum structure. While textbook audio may offer polished and standardized content, it lacks the flexibility and responsiveness of AI-generated resources.

One major advantage of AI-generated materials is their adaptability. Learners can adjust speed, complexity, accent, and topic based on their needs, thereby receiving more personalized listening experiences. This customization increases learner autonomy and reduces frustration often associated with fixed audio resources that may be too difficult or too simplistic. Furthermore, AI systems can integrate real-time feedback mechanisms that identify comprehension gaps and suggest targeted practice, which is absent in traditional textbook audio.

Another key factor is the authenticity and relevance of content. AI systems can generate dialogues or monologues that mimic real-world conversations, incorporating updated vocabulary, idiomatic expressions, and natural speech patterns. This aligns more closely with the communicative goals of modern language instruction. In contrast, textbook audio often presents idealized, slower-paced, and overly structured conversations that do not fully reflect real-life language use. As a result, learners exposed primarily to textbook audio may struggle when encountering native speakers in spontaneous contexts.

However, despite these benefits, AI-generated materials are not without limitations. Some learners report a lack of emotional depth or human nuance in synthesized voices, which can affect engagement and motivation. The mechanical tone and occasional unnatural prosody in TTS-generated speech may impede the development of listening skills related to intonation, stress, and rhythm. Furthermore, learners who are not technologically adept may find AI platforms intimidating or distracting, thus limiting their effectiveness.

Textbook audio, on the other hand, offers predictability and pedagogical coherence. It is designed to align with other components of the textbook, such as vocabulary lists, grammar exercises, and thematic units. This integration supports a structured learning pathway that many students and teachers find useful, especially in formal academic settings. Additionally, professionally recorded textbook audio often features clear articulation and appropriate pacing for beginner and intermediate learners, reducing cognitive load and supporting incremental skill development.

Research suggests that combining both approaches yields the most beneficial outcomes. Blended listening instruction—where AI-generated materials complement textbook audio—allows learners to benefit from the strengths of both formats. Textbook audio provides foundational structure and consistency, while AI-generated content introduces flexibility, authenticity, and challenge. This dual approach caters to

diverse learner preferences and helps scaffold the transition from controlled input to more spontaneous, real-world listening.

Learner perception also plays a crucial role in determining the effectiveness of these materials. Studies have shown that students who feel in control of their learning tools demonstrate higher engagement and better outcomes. The interactivity of AI platforms can enhance motivation and enjoyment, which are essential affective factors in language acquisition. At the same time, the familiarity of textbook formats can offer a sense of security and stability, especially for those less confident with new technologies.

In conclusion, both AI-generated listening materials and textbook audio have distinct advantages and limitations. AI tools offer personalization, real-world relevance, and adaptive features that align with modern pedagogical principles. Traditional textbook audio, while limited in scope, provides consistency, clarity, and curriculum alignment. An integrated instructional approach that strategically leverages both types of materials is likely to produce the most effective results in EFL listening instruction. As AI technology continues to evolve, its role in shaping the future of language learning—especially in listening comprehension—will become increasingly prominent.

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