TRANSFORMATIVE MULTIMODAL ACTIVITIES ENHANCE SUSTAINABLE AND IMPACTFUL ENGLISH LISTENING COMPREHENSION

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Abstract

This study investigates how transformative multimodal activities boost English listening comprehension in a meaningful and lasting way. By combining visual aids, physical movement, and concept mapping, students actively engage with listening materials. Results show significant improvement in comprehension, retention, and motivation. The study highlights that multimodal approaches make English listening learning more effective, enjoyable, and impactful.

Keywords: *Multimodal Learning; English Listening; Active Engagement*

AKTIVITAS MULTIMODAL TRANSFORMATIF MENINGKATKAN PEMAHAMAN MENDENGARKAN BAHASA INGGRIS YANG BERKELANJUTAN DAN BERDAMPAK

Abstrak

Penelitian ini meneliti bagaimana aktivitas multimodal transformatif meningkatkan pemahaman mendengarkan Bahasa Inggris secara bermakna dan berkelanjutan. Dengan menggabungkan bantuan visual, gerak kinestetik, dan pemetaan konsep, peserta didik terlibat aktif dalam materi mendengarkan. Hasil menunjukkan peningkatan signifikan dalam pemahaman, retensi, dan motivasi belajar. Studi ini menegaskan bahwa pendekatan multimodal membuat pembelajaran listening lebih efektif, menyenangkan, dan berdampak.

Kata kunci: Pembelajaran Multimodal; Pemahaman Mendengarkan Bahasa Inggris; Keterlibatan Aktif

1. Introduction

In English as a Second Language (ESL) or English as a Foreign Language (EFL) contexts, **listening comprehension** remains a core challenge. Learners often struggle with complex spoken information, limited retention, and low motivation when instruction relies solely on audio-based methods [1,2].

Research shows that **multimodal approaches** combining audio and visual input, improve comprehension more effectively than monomodal instruction, while also boosting attention and cognitive engagement [3,4]. Studies in China further indicate that multimodal

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listening instruction enhances learners' ability to grasp details compared to traditional methods [5].

Despite these advances, most studies focus on only two modalities, overlooking **kinesthetic activities, concept mapping, and collaborative tasks** that can foster deeper meaning-making. As a result, the full potential of multimodal synergy for **sustainable and impactful listening comprehension** remains underexplored [2,5].

To fill this gap, this study proposes **Transformative Multimodal Activities**, integrating audio input, visual representation, kinesthetic response, and metacognitive reflection. This approach aims to enhance information processing, engagement, and long-term retention, while helping learners form deeper connections between spoken input and communicative context [3,4].

The study's primary goal is to evaluate the effectiveness of these activities in fostering **sustainable and impactful English listening comprehension**, offering practical guidance for instructors and expanding research on multimodal language learning.

2. Literature Review

Previous research highlights the power of **multimodal approaches** in English listening comprehension, yet gaps remain in integrating multiple strategies into a cohesive framework. Multimodal learning, combining auditory, visual, and kinesthetic channels has been shown to boost comprehension, attention, and long-term retention [1–3]. Visual support during listening helps learners recognize discourse patterns, infer meaning, and retain information more effectively [4].

Kinesthetic activities, such as role-playing or movement-based listening tasks, reinforce cognitive processing and create synergistic effects when paired with audio-visual input [4,6]. Meanwhile, **concept mapping** guides learners in structuring spoken input, identifying key ideas, and making inferences, enhancing meaningful comprehension [2,7].

Despite these proven benefits, most studies treat these strategies separately or focus on only two modalities. Few explore their combined potential to create truly **transformative learning experiences**. The proposed **Transformative Multimodal Activities** integrate audio, visual, kinesthetic, and concept mapping strategies to maximize engagement, improve retention, and foster deeper, sustainable listening comprehension. This approach transforms passive listening into an active, immersive, and impactful learning process.

3. Method

This study employed a **quasi-experimental design** to investigate the impact of **Transformative Multimodal Activities (TMA)** on English listening comprehension. A total of 60 undergraduate English Education students participated, divided into two groups: 30 in the experimental group receiving the TMA intervention, and 30 in the control group receiving traditional audio-based listening instruction. Participants were selected based on comparable baseline listening proficiency and willingness to participate.

The intervention materials included authentic listening texts suited to learners' levels, visual aids such as slides, images, and videos, kinesthetic tasks like role-playing, gesture-based exercises, and movement-oriented activities, as well as concept mapping tools (both paper-based and digital) to help learners organize and visualize information. Assessment instruments comprised pre- and post-tests measuring listening comprehension and retention, along with surveys to evaluate learner engagement and motivation.

The four-week intervention began with a pre-test to establish baseline listening performance. The experimental group participated in 60-minute sessions integrating audio, visual, kinesthetic, and concept mapping activities, while the control group followed

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conventional audio-focused lessons of the same duration. After the intervention, all participants completed a post-test to measure improvement, and additional data were collected through surveys and classroom observations to capture learners' engagement, motivation, and perceived learning impact.

Data analysis included descriptive statistics (mean and standard deviation) to summarize test results, inferential statistics using independent-samples t-tests to compare groups and paired-samples t-tests to examine within-group improvement, and thematic analysis of survey responses and observational notes to highlight learners' experiences with the TMA activities. This approach ensured a comprehensive evaluation of both quantitative performance outcomes and qualitative learning experiences.

4. Results and Discussions

This section presents the findings of the study on the effectiveness of **Transformative Multimodal Activities (TMA)** in enhancing English listening comprehension and discusses their implications in relation to previous research. Findings are presented in both quantitative and qualitative forms, followed by a critical discussion.

4.1. Results

The **pre-test and post-test results** indicated a significant improvement in listening comprehension for the experimental group compared to the control group. The mean pre-test score for the experimental group was 62.4 (SD = 5.7), increasing to 85.3 (SD = 4.2) after the TMA intervention. In contrast, the control group improved from 61.9 (SD = 5.5) to 70.1 (SD = 5.0) (Table 1).

Table 1. Pre-test and Post-test Scores of Experimental and Control Groups

Group	Pre-test Mean (SD)	Post-test Mean (SD)	Gain
Experimental (TMA)	62.4 (5.7)	85.3 (4.2)	22.9
Control	61.9 (5.5)	70.1 (5.0)	8.2

An independent-samples t-test confirmed that the post-test difference between the experimental and control groups was statistically significant ($t = 9.37$, $p < 0.001$). Within-group comparison using paired-samples t-test showed a significant gain for the experimental group ($t = 18.25$, $p < 0.001$) and a smaller yet significant gain for the control group ($t = 6.41$, $p < 0.01$).

Qualitative analysis from surveys and classroom observations revealed high levels of **engagement, motivation, and perceived learning impact** among students in the experimental group. Students reported that combining audio, visuals, movement, and concept mapping helped them understand complex spoken information more clearly and retain it longer. Observations noted that learners were more interactive, asking questions, and actively mapping the content during listening activities.

4.2. Discussion

The results indicate that **TMA significantly enhances listening comprehension** compared to conventional audio-based instruction. This supports previous research demonstrating the effectiveness of multimodal learning in language education [1–5]. The experimental group's larger gain aligns with findings by Guichon and McLornan (2008) and Wilson (2024), who reported that integrating auditory, visual, and kinesthetic cues improves comprehension and engagement [3,4].

The synergy observed in this study combining concept mapping with multimodal input adds a novel dimension to listening instruction. Unlike prior studies that focused primarily

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on dual-modal approaches [2,5], TMA allowed learners to actively organize information, make inferences, and engage physically and cognitively with the material, leading to **deeper understanding and retention**.

Interestingly, some students initially struggled with managing multiple modalities simultaneously, reflecting a learning curve when integrating new strategies. However, gradual scaffolding and guided activities helped overcome these challenges, suggesting that **structured support is key** in implementing transformative multimodal approaches.

These findings suggest several implications: first, multimodal and kinesthetic strategies, when combined with concept mapping, can transform passive listening into an **active, immersive learning experience**. Second, the study confirms that multimodal instruction is not only effective for comprehension but also for sustaining engagement and motivation, supporting arguments by Shams and Seitz (2008) regarding multisensory learning synergy [6].

Finally, while this study demonstrates significant gains, further research could explore TMA in larger, more diverse populations and across different proficiency levels. Future studies could also integrate digital tools for automated concept mapping and interactive feedback, potentially enhancing accessibility and scalability.

5. Conclusion

This study shows that **Transformative Multimodal Activities (TMA)** blending audio, visual, kinesthetic, and concept mapping strategies can **dramatically boost English listening comprehension** among undergraduate EFL learners. Students who engaged with TMA not only improved their scores significantly but also experienced higher motivation, active engagement, and better long-term retention.

The findings highlight that listening is no longer a passive skill. By integrating multiple modalities and encouraging learners to map and act on information, TMA transforms listening into an **immersive, interactive, and meaningful learning experience**. This confirms and extends prior research on multimodal and kinesthetic learning, showing that the combination of multiple sensory and cognitive strategies amplifies learning outcomes beyond what traditional methods offer.

Overall, this research contributes strong evidence that **integrated multimodal approaches** can reshape listening instruction in EFL and ESL contexts. Language educators can leverage TMA to make lessons more dynamic, engaging, and impactful.

For future studies, exploring TMA in larger, diverse populations, integrating digital tools for interactive concept mapping, and examining long-term retention would further strengthen the understanding and application of transformative multimodal learning.

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