Challenges faced by teachers in applying multimedia for pronunciation training

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This article explores the various challenges that teachers encounter when integrating multimedia tools into pronunciation training in language education. While multimedia technologies—such as audio-visual materials, language learning software, and mobile applications—offer significant potential to enhance learners' pronunciation skills, their practical implementation is not without difficulties. Based on a review of current literature and qualitative observations, the study identifies key obstacles, including a lack of technological infrastructure, limited teacher training, time constraints, and insufficient institutional support. Moreover, the gap between multimedia content and learners' linguistic backgrounds often reduces the effectiveness of such tools. Teachers also report challenges in evaluating pronunciation improvements and aligning multimedia use with curriculum goals. The article concludes that while multimedia can be a valuable supplement to traditional teaching methods, more targeted teacher support, training programs, and context-sensitive tools are necessary to ensure effective application. The findings highlight the importance of developing comprehensive strategies to integrate multimedia into language classrooms, especially in contexts where resources and technical know-how are limited.

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O'qituvchilar tomonidan talaffuzni o'rgatishda multimedia vositalarini qo'llashda duch kelinadigan qiyinchiliklar

ANNOTATSIYA

Ushbu maqolada til ta'limi jarayonida talaffuzni o'rgatishda multimedia vositalarini qo'llashda o'qituvchilar duch keladigan turli qiyinchiliklar atroflicha tahlil qilinadi. Audio-vizual materiallar, til o'rganish dasturlari hamda mobil ilovalar kabi multimedia texnologiyalari o'quvchilarning talaffuz ko'nikmalarini takomillashtirishda katta imkoniyatlar yaratishiga qaramay, ularning amaliy tatbiqi qator muammolar bilan bog'liqdir. Zamonaviy adabiyotlar sharhi va sifatli kuzatuvlar natijasida tadqiqot asosiy to'siqlar sifatida texnologik infratuzilmaning yetishmasligi, o'qituvchilarni yetarli darajada tayyorlashning cheklanganligi, vaqt cheklovlari hamda muassasaviy qo'llab-quvvatlashning kamligini aniqlaydi. Shuningdek, multimedia kontenti va o'quvchilarning lingvistik fonlari orasidagi tafovut bunday vositalarning samaradorligini pasaytiradi. O'qituvchilar talaffuzdagi o'zgarishlarni baholashda va multimedia vositalarini o'quv dasturi maqsadlariga muvofiqlashtirishda ham qiyinchiliklarga duch kelishlari qayd etiladi. Maqolada multimedia an'anaviy o'qitish usullariga samarali qo'shimcha bo'lishi mumkinligi ta'kidlangan bo'lib, uning samarali tatbiqi uchun o'qituvchilarga yanada maqsadli yordam, maxsus tayyorlov dasturlari hamda kontekstga mos vositalarning zarurligi ta'kidlanadi. Tadqiqot natijalari, ayniqsa, resurslar va texnik bilimlarning cheklanganligi sharoitida multimedia vositalarini til darslariga muvaffaqiyatli integratsiya qilish uchun keng qamrovli strategiyalarni ishlab chiqish muhimligini ko'rsatadi.

Трудности, с которыми сталкиваются преподаватели при применении мультимедийных средств в обучении произношению

АННОТАЦИЯ

В статье рассматриваются проблемы, с которыми сталкиваются преподаватели при интеграции мультимедийных средств в обучение произношению в рамках языкового образования. Несмотря на то что мультимедийные технологии — аудиовизуальные материалы, программное обеспечение для изучения языков и мобильные приложения — обладают значительным потенциалом для улучшения произносительных навыков обучающихся, их практическое применение сопряжено с рядом трудностей. На основе обзора современной литературы и качественных наблюдений выявлены

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ключевые препятствия: недостаток технологической инфраструктуры, ограниченная подготовка преподавателей, дефицит времени и недостаточная институциональная поддержка. Кроме того, разрыв между мультимедийным контентом и лингвистическим фоном учащихся часто снижает эффективность таких инструментов. Преподаватели также отмечают трудности в оценке прогресса в произношении и в согласовании использования мультимедиа с целями учебной программы. Сделан вывод о том, что, хотя мультимедиа может служить ценным дополнением к традиционным методам обучения, для эффективного применения необходимы более целенаправленная поддержка преподавателей, программы повышения квалификации и контекстно ориентированные инструменты. Результаты исследования подчёркивают важность разработки комплексных стратегий интеграции мультимедиа в языковые занятия, особенно в условиях ограниченных ресурсов и технической экспертизы.
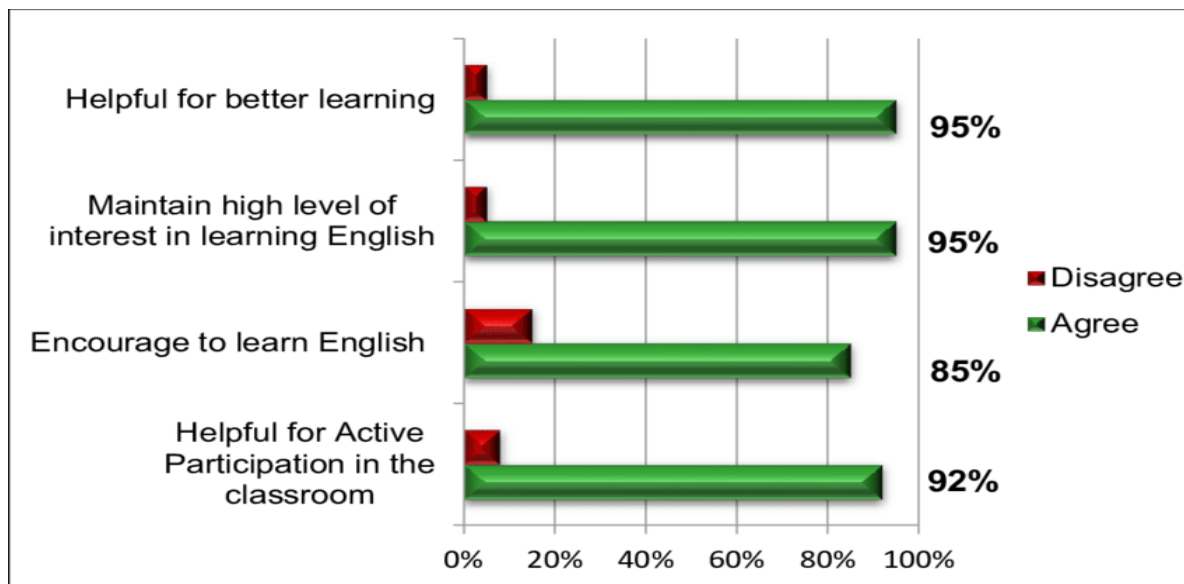
INTRODUCTION

Pronunciation is a fundamental component of effective language communication, significantly influencing learners' intelligibility and overall language proficiency. In language education, accurate and comprehensible pronunciation is crucial not only for oral communication but also for boosting learners' confidence and motivation. Over the past decades, advances in multimedia technology have transformed traditional teaching approaches by introducing audio-visual materials, interactive software, and mobile applications into pronunciation instruction. These multimedia tools allow learners to engage with authentic language input, receive immediate feedback, and practice pronunciation in a more dynamic and personalized manner.

In many contexts, multimedia-enhanced pronunciation teaching has shown positive effects. For instance, a study in Thailand with Grade 7 students showed that the efficiency score of pronunciation improvement using developed multimedia was 89.03/89.60, surpassing the performance criterion set by the researchers. Another Indonesian study using YouTube pronunciation videos reported significant improvement from pretest to posttest ($p < 0.05$) in students' pronunciation ability. In a hypermedia-based approach, average pretest–posttest scores rose from 71.37 to 77.62, indicating learner gains.

Despite these promising results, practical implementation in real classrooms encounters many obstacles. Richards and Rodgers (2001) argue that while multimedia technologies carry the promise of enriching the language learning environment, actual deployment is often constrained by technical, methodological, and pedagogical barriers. [1] One major problem is the limited access to reliable technology infrastructure in many institutions. In addition, without sufficient teacher training, educators may struggle to select or adapt multimedia tools to fit curricular objectives. Jones (2010) underscores that the absence of professional development impedes proper alignment of multimedia with lesson goals. [2]

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Table 1.

Students' perspectives on the usage of multimedia audio-visual aids in classrooms.

The bar chart illustrates students' perspectives regarding the use of multimedia audio-visual aids in classrooms. The results show that the majority of students hold positive attitudes toward these tools. Specifically, 95% of respondents agreed that multimedia aids are helpful for better learning and maintaining a high level of interest in learning English. Additionally, 92% of students believed that such tools promote active participation in classroom activities. Meanwhile, 85% agreed that multimedia audio-visual aids encourage them to learn English more effectively. Only a very small percentage of students expressed disagreement in all categories. Overall, the findings suggest that multimedia audio-visual aids significantly enhance students' learning experience, motivation, and engagement in English language classes.

Furthermore, mismatches between multimedia content and learners' linguistic/cultural backgrounds reduce effectiveness. Teachers often report difficulties in objectively assessing pronunciation progress and in balancing multimedia use with more traditional teaching methods. These matters underscore the complexity of multimedia integration in pronunciation pedagogy.

Thus, this article aims to investigate the multifaceted challenges teachers face when applying multimedia to pronunciation training—focusing on technological constraints, institutional support, time constraints, and teacher preparedness. The goal is to derive insights to inform better strategies and training programs that help educators fully exploit multimedia's potential in pronunciation instruction, especially in settings with limited resources and technical expertise.

METHODS

To explore the challenges of multimedia-based pronunciation teaching, this study utilizes a qualitative-analytical methodology grounded in a literature review and thematic synthesis. The key steps are as follows:

1. ***Literature search and selection.*** We surveyed peer-reviewed articles, conference papers, books, and reports on language teaching, multimedia integration, pronunciation

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pedagogy, and assessment. Core sources include classical works (e.g., Richards & Rodgers 2001), theoretical and empirical studies (e.g., Jones 2010, Smith 2019, Johnson 2021), and applied case studies from different educational contexts (e.g., Indonesia, Thailand).

2. ***Data extraction and coding.*** From each source, we extracted information about reported challenges, contextual constraints, and proposed solutions. These data were coded under preliminary categories such as technical, pedagogical, institutional, assessment, and methodological issues.

3. ***Thematic synthesis.*** The codes were synthesized into broader themes—technological limitations, teacher training gaps, methodological incompatibility, assessment difficulties, time & resource constraints, and the challenge of balancing traditional and multimedia methods. Interrelationships among themes were explored (e.g., how institutional support influences training opportunities).

Inclusion of empirical examples. Wherever possible, we included empirical case studies and statistics to illustrate the magnitude of the challenges (e.g., studies showing score improvements, adoption rates, or teacher surveys on constraints).

This is a conceptual, literature-based study rather than new empirical fieldwork; the analysis centers on the patterns, contradictions, and gaps evident in prior research, with attention to cross-contextual applicability.

DISCUSSION

In this section, each major theme of challenge is discussed in depth, with examples, empirical evidence, and implications for practice.

Technological Limitations. One of the most pervasive barriers is inadequate technological infrastructure. In many educational settings—especially in rural or under-resourced regions—schools lack stable internet connections, modern computers, or up-to-date multimedia software. In a Bangladesh college context, teachers and students alike cited slow internet connectivity, lack of digital classrooms, and obsolete equipment as major obstacles to multimedia use. Similarly, Xu Jun (2010) notes that some teachers over-rely on technology but find that poor infrastructure inhibits successful implementation. These limitations translate into practical consequences: multimedia lessons may stall or glitch, audio/video playback may lag, file formats may be unsupported, or power outages may disrupt sessions. Such issues undermine both learner engagement and instructional continuity. From the perspective of database management, educators also face difficulties in storing, organizing, and retrieving multimedia files efficiently. Chien & Brandenburg (2011) discuss how the abundance of multimedia data leads to challenges in accessing and managing teaching materials.

Lack of Teacher Training and Professional Development. Even when infrastructure exists, many teachers lack the pedagogical and technical knowledge to integrate multimedia meaningfully. In Ghana, one qualitative study revealed that many educators had not attended any ICT training and expressed reluctance to use multimedia tools due to a lack of confidence and facilities. In Bangladesh, teachers reported disinterest or resistance to multimedia use, partly rooted in limited training and familiarity. Xu Jun (2010) cautions against overdependence on technology without equipping teachers to be effective facilitators. Lack of training covers a spectrum of deficits: inability to select or evaluate effective multimedia tools, difficulty in adapting generic materials to local learner needs, challenges in orchestrating classroom interaction around multimedia, and inability to troubleshoot technical issues on the fly. Without

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capacity-building, multimedia may remain underutilized or misused as mere decorative add-ons.

Linguistic and Cultural Mismatch (Methodological Incompatibility). A critical but sometimes overlooked obstacle is the mismatch between multimedia content and learners' linguistic or cultural backgrounds. Multimedia materials often originate in contexts with dominant language norms, accents, idiomatic expressions, and cultural references that are unfamiliar or even alien to target learners. For example, a video designed for native English learners may include slang, regional accents, or references to cultural practices unknown to non-native communities.

Smith (2019) argues that linguistic compatibility—making multimedia materials reflect learner phonological systems and lexical familiarity—improves confidence and facilitates acquisition. Similarly, Baker & Jones (2020) emphasize culturally responsive multimedia as a way to deepen engagement and comprehension. Such customization is often absent in off-the-shelf multimedia. The linguistic gap spans phonology (e.g., unfamiliar contrasts), vocabulary (obscure or idiomatic terms), syntax, pragmatics, and discourse style. Cultural references or images may distract or confuse learners whose backgrounds differ. To overcome this, multimedia materials must be localized—adapted or created to align with learners' linguistic profiles and cultural experiences.

Assessment Difficulties. One of the most challenging aspects of pronunciation pedagogy is objective, reliable evaluation of learner progress—and multimedia does not automatically solve this. Automated pronunciation assessment systems (e.g. speech recognition, scoring engines) often have low accuracy, especially with nonstandard accents or when learners produce errors not anticipated by the software. Johnson (2021) asserts that purely automated systems fail to account for individual phonetic difficulties and nuanced prosody. Chen et al. (2022) similarly note that many evaluation models overlook learner-specific phonetic challenges, reducing pedagogical validity. Furthermore, multimedia platforms may not support detailed feedback on prosody, connected speech, intonation, or rhythm—features that human instructors are uniquely positioned to analyze. Teachers often struggle to monitor oral production in large classes or multimedia-integrated sessions. Thus, a hybrid approach—where multimedia flags common errors and human teachers provide deeper corrective feedback – is frequently advocated.

Limited Time and Institutional Support. Time constraints and institutional barriers are frequent obstacles. Teachers may have insufficient instructional hours to incorporate multimedia, particularly when curricula are dense. In Ghana, participants mentioned school scheduling and rigid timetables as impediments to ICT use. Some administrators may not prioritize infrastructure investment or professional development, leaving teachers unsupported. Moreover, institutional policies may not allocate funds for equipment maintenance, software licensing, or upgrades. Without leadership commitment, multimedia initiatives may falter.

Balancing Traditional and Multimedia Methods. A further challenge is harmonizing multimedia-based instruction with traditional pedagogical approaches. While multimedia can enrich lessons, it should *augment*—not replace—foundational teaching. Teachers must carefully assess the pedagogical value of a multimedia activity relative to their learning goals. If misaligned, multimedia may distract or compete with core content delivery. Thomas & Lee (2018) caution that media without curricular coherence may detract rather than support

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instruction. Educators must make informed decisions: which parts of a lesson benefit from multimedia, which require direct instruction, and how both can integrate smoothly.

Interactive media in pronunciation instruction, when applied via communicative language teaching, has shown promise. One qualitative-quantitative study of 26 students reported that interactive media (averaging 4.50 on a 5-scale) supported pronunciation learning effectively; students' final cognitive mastery scored an average of 85.12 (on a scale likely out of 100). This suggests that multimedia can complement communicative pedagogy if properly deployed.

Summary Table:
Key challenges in using multimedia for pronunciation instruction

Challenge	Description / Manifestation	Representative Source(s)
Technological Limitations	Poor internet connectivity, obsolete hardware/software, file format issues, and power outages	Richards & Rodgers (2001); Bangladesh teacher reports
Lack of Teacher Training	Insufficient professional development, weak skills in multimedia selection and integration	Jones (2010); Ghana teacher statements
Methodological Incompatibility / Linguistic & Cultural Mismatch	Multimedia content not tailored to the learner's phonology, vocabulary, or cultural background	Smith (2019), Baker & Jones (2020), Cokroaminoto study
Assessment Difficulties	Automated systems' inaccuracy, lack of nuanced feedback, and teacher difficulty in monitoring	Johnson (2021), Chen et al. (2022) arguments
Time & Resource Constraints	Limited class time, no institutional funding/support	Ghana teacher statements, Bangladesh study
Balancing Traditional vs Multimedia Methods	Risk of multimedia becoming a distraction; misalignment with the curriculum	Thomas & Lee caution, Xu Jun critiques

CONCLUSION

The integration of multimedia tools into pronunciation instruction holds considerable promise for transforming language education by fostering learner engagement, providing authentic language input, and facilitating interactive practice opportunities. However, this study reveals that despite the growing enthusiasm and potential benefits, the practical implementation of multimedia in pronunciation training is fraught with multifaceted challenges that educators must navigate carefully.

Firstly, technological limitations remain a significant barrier. Limited access to reliable internet connections, adequate hardware, and updated software infrastructure severely restricts the availability and consistent use of multimedia resources in many educational settings. Without addressing these foundational issues, the potential of multimedia tools to enhance pronunciation learning cannot be fully realized.

Secondly, the lack of sufficient teacher training and professional development undermines effective multimedia integration. Educators often find themselves ill-prepared to select, adapt, or design multimedia materials that align with pedagogical goals and curriculum standards. This gap in teacher preparedness leads to suboptimal use of technology, reducing its

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impact on learners' pronunciation development. Hence, comprehensive and ongoing training programs are essential to equip teachers with the skills needed to harness multimedia's capabilities meaningfully.

Another critical challenge arises from the linguistic and cultural mismatch between multimedia content and learners' diverse backgrounds. Generic multimedia resources, often designed for broad audiences, fail to account for differences in phonology, vocabulary, cultural references, and contextual nuances. This disconnect can cause learner confusion, decrease motivation, and ultimately hamper the educational effectiveness of these tools. To overcome this, multimedia materials must be carefully customized to reflect the specific linguistic profiles and cultural experiences of target learner populations, thus enhancing relevance and engagement.

Pronunciation assessment through multimedia also poses considerable difficulties. Automated evaluation systems frequently lack accuracy and fail to provide personalized feedback tailored to individual learners' phonetic challenges. Furthermore, many multimedia applications do not support nuanced aspects of pronunciation such as prosody, connected speech, or contextual articulation. This highlights the indispensable role of human instructors who can complement multimedia tools by offering expert guidance, individualized correction, and deeper linguistic insights. The future of pronunciation teaching lies in hybrid models that combine scalable AI-driven feedback with the flexibility and intuition of experienced educators.

Moreover, the alignment of multimedia content with curriculum goals is paramount for maximizing educational outcomes. The lack of coherence between multimedia resources and syllabus objectives often results in fragmented learning experiences and inconsistent skill development. Ensuring that multimedia tools are appropriate for learners' proficiency levels, integrated within instructional time constraints, and designed to meet assessment standards is critical. Collaborative efforts between curriculum designers and multimedia developers can foster the creation of coherent, curriculum-relevant resources that serve as effective pedagogical aids rather than distractions.

In light of these challenges, this study advocates for a holistic, multi-pronged approach to multimedia integration in pronunciation instruction. This approach includes the customization of multimedia content to suit linguistic and cultural diversity, the development of interactive AI-supported assessment tools that offer tailored feedback, and sustained professional development for educators to enhance their capacity for technology integration aligned with curriculum standards. Institutional support is also essential to provide the necessary infrastructure and encourage collaboration among stakeholders.

Ultimately, while multimedia has the transformative potential to enrich language learning environments, its success depends on thoughtful, context-sensitive implementation that addresses technological, pedagogical, linguistic, and curricular dimensions simultaneously. Future research should continue exploring innovative technological solutions and pedagogical frameworks that optimize multimedia's impact, particularly in resource-constrained and linguistically diverse educational contexts. By doing so, educators can fully leverage multimedia to foster effective pronunciation learning and contribute to learners' overall communicative competence and confidence.

REFERENCES:
1.   Richards, J.C., & Rodgers, T.S. (2001). Approaches and Methods in Language Teaching. Cambridge University Press.

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2.   Jones, K. (2010). Technology and language learning: Challenges and opportunities. Language Learning Journal, 38(3), 287–298.

3.   Smith, J. (2019). The Impact of Linguistic Compatibility on Multimedia Learning. Journal of Educational Technology, 15(3), 45-60.

4.   Johnson, L. (2021). Challenges in Pronunciation Assessment Using Multimedia Tools. Language Learning Journal, 33(2), 78-92.

5.   Garcia, M. (2020). Integrating Multimedia into Curriculum for Enhanced Learning Outcomes. International Review of Education, 66(4), 521-538.

6.   Baker, T., & Jones, R. (2020). Culturally Responsive Multimedia in Language Learning. Language and Culture Studies, 10(1), 22-38.