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## MODERN WAYS OF IMPROVING THE METHODOLOGY OF ELIMINATING SPEECH DEFECTS IN STUDENTS

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### ABSTRACT

In the 21st century, addressing speech defects in students has become an essential component of educational practice. With the advancement of technology and pedagogical methods, there are new opportunities to improve the traditional approaches to speech therapy. This article explores modern methodologies for eliminating speech defects, including the integration of technology, individualized learning plans, and interdisciplinary collaboration. The focus is on how these methods can enhance the effectiveness of speech therapy, ensuring better outcomes for students with speech and language disorders. The article also discusses the challenges faced in implementing these methods and suggests future directions for research and practice.

### KEYWORDS

Speech defects, speech therapy, educational technology, individualized learning, interdisciplinary collaboration, speech and language disorders, modern pedagogy.

### INTRODUCTION

Speech defects in students can significantly impact their academic performance and social interactions. Traditional methods of speech therapy, while

effective, often fall short in addressing the unique needs of each student. With the rapid development of educational technology and new pedagogical



approaches, there is an opportunity to enhance these traditional methods. This article aims to explore modern methodologies for eliminating speech defects in students, focusing on the integration of technology, individualized learning, and interdisciplinary collaboration.[1]

### Modern Methodologies in Speech Therapy:

**Integration of Technology: Speech Therapy Apps:** The use of mobile applications and software designed for speech therapy has revolutionized the way speech defects are addressed. These apps offer interactive exercises, immediate feedback, and the ability to track progress over time. Examples include apps like Speech Blubs, Articulation Station, and LAMP Words for Life.

**Artificial Intelligence (AI):** AI-driven tools can provide personalized speech therapy sessions, adapting to the student's progress and needs. These tools can analyze speech patterns, offer real-time corrections, and even predict future challenges that the student might face.[2]

**Virtual Reality (VR):** VR offers immersive environments where students can practice speech in realistic scenarios, helping them to overcome anxiety and improve their communication skills in a safe space.

The field of speech therapy is constantly evolving, incorporating innovative techniques and approaches

to address speech defects in students. Here are some modern ways to improve the methodology:

### 1. Technology-Enhanced Therapy:

**Speech recognition software:** Utilizing AI-powered software to analyze speech patterns, identify specific errors, and provide personalized feedback.

**Virtual reality (VR) therapy:** Immersive VR environments can create realistic scenarios for practicing speech in various contexts, reducing anxiety and increasing engagement.

**Augmented reality (AR) therapy:** AR can overlay visual cues and interactive elements onto real-world settings, enhancing learning and making therapy more engaging.

**Teletherapy:** Remote therapy sessions via video conferencing platforms allow for accessibility, flexibility, and continuity of care.

### 2. Evidence-Based Interventions:

**Multimodal therapy:** Combining various therapies, such as articulation therapy, fluency therapy, and voice therapy, tailored to individual needs.

**Cognitive-behavioral therapy (CBT):** Addressing underlying cognitive and emotional factors contributing to speech defects, such as anxiety or low self-esteem.



Neuroplasticity-based therapy: Utilizing exercises and activities that stimulate brain regions associated with speech production to enhance plasticity and improve speech skills.[3]

Motor learning principles: Applying principles of motor learning to speech therapy, focusing on repetition, feedback, and practice to optimize skill acquisition.[4]

### 3. Personalized Learning:

Data-driven therapy: Tracking progress through speech assessment tools and utilizing data analytics to personalize interventions and monitor effectiveness.

Adaptive learning platforms: AI-powered platforms can tailor therapy activities and adjust difficulty levels based on individual student needs and progress.

Gamified therapy: Incorporating games and interactive activities into therapy sessions to increase engagement, motivation, and enjoyment.

### 4. Collaborative Approach:

Interdisciplinary collaboration: Working closely with teachers, parents, and other professionals to create a supportive and consistent environment for students.

Family involvement: Engaging families in the therapy process, providing them with resources and strategies for supporting their child's speech development.

Peer support: Incorporating peer interaction and role-playing to improve social communication skills and reduce anxiety associated with speech.[5]

### 5. Focus on Holistic Development:

Addressing underlying conditions: Identifying and addressing any underlying medical conditions that may contribute to speech defects.

Promoting social-emotional well-being: Creating a positive and supportive learning environment that fosters self-confidence and reduces anxiety about speech.

Encouraging communication: Creating opportunities for students to practice communication skills in various contexts, such as classroom activities, group projects, and social events.

### Challenges and Considerations:

Accessibility and affordability: Ensuring that technological advancements are accessible and affordable for all students, regardless of their socioeconomic background.

Ethical considerations: Protecting student privacy and ensuring responsible use of technology in therapy.[6]

Teacher training and support: Providing teachers with adequate training and resources to effectively integrate new technologies and methodologies into their teaching practices.



## Individualized Learning Plans:

**Assessment-Based Planning:** Modern speech therapy emphasizes the importance of individualized learning plans that are tailored to the specific needs of each student. This approach begins with a thorough assessment of the student's speech abilities, identifying the areas that require intervention.

**Goal Setting:** Clear, achievable goals are set for each student, with regular reviews to monitor progress and make necessary adjustments. This ensures that the therapy is focused and effective.

**Parental Involvement:** Parents are encouraged to be actively involved in their child's speech therapy. Modern methodologies include training parents to support speech exercises at home, reinforcing the therapy sessions and providing a consistent learning environment.

## Interdisciplinary Collaboration:

**Team-Based Approach:** Modern speech therapy often involves collaboration between speech therapists, educators, psychologists, and other professionals. This interdisciplinary approach ensures that all aspects of the student's development are considered, leading to more comprehensive care.

**Integration with Classroom Activities:** Speech therapy is increasingly being integrated into regular classroom activities. Teachers are trained to incorporate speech

exercises into their lessons, making speech therapy a part of the daily routine rather than a separate activity.[7]

## Challenges in Implementing Modern Methodologies:

**Access to Technology:** While technology offers numerous benefits, access remains a significant challenge, particularly in underprivileged areas. Ensuring that all students have access to the necessary tools is crucial for the success of these modern methodologies.

**Training and Professional Development:** Educators and speech therapists need ongoing training to effectively implement these modern methods. This requires investment in professional development and continuous learning.

**Parental Engagement:** Engaging parents in the speech therapy process can be challenging, especially if they lack the time, resources, or understanding of the importance of their involvement. Strategies to increase parental engagement are necessary to maximize the effectiveness of speech therapy.

**Cost and Resource Allocation:** The cost of implementing modern speech therapy methods, particularly those involving advanced technology, can be prohibitive. Schools and institutions need to consider how to allocate resources effectively to



ensure that all students receive the support they need.[8]

## Future Directions

**Research and Development:** Continued research into the effectiveness of modern speech therapy methods is essential. This includes studies on the long-term outcomes of students who receive technology-based speech therapy, as well as the development of new tools and approaches.

**Policy and Advocacy:** There is a need for policies that support the implementation of modern speech therapy methods in schools, particularly in terms of funding, training, and resource allocation. Advocacy efforts should focus on raising awareness of the importance of addressing speech defects and the benefits of modern methodologies.

**Global Collaboration:** Collaboration between countries and educational institutions can lead to the sharing of best practices and resources, helping to overcome some of the challenges associated with implementing modern speech therapy methods.

## CONCLUSION

Modern methodologies for eliminating speech defects in students offer significant improvements over traditional approaches. The integration of technology, individualized learning plans, and interdisciplinary collaboration can enhance the effectiveness of speech

therapy, leading to better outcomes for students. However, challenges such as access to technology, training, and resource allocation must be addressed to fully realize the potential of these methods. Continued research, policy support, and global collaboration will be essential in advancing the field and ensuring that all students have the opportunity to overcome speech defects and succeed academically and socially.

Modern advancements in technology and evidence-based interventions offer a promising path towards more effective and personalized speech therapy for students. By embracing these innovations and addressing ethical considerations, we can empower students to overcome speech defects and achieve their full communication potential.

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