ARTIFICIAL INTELLIGENCE (AI) IN THE AGE OF TRANSFORMATION: OPPORTUNITIES AND CHALLENGES

AAB COLLEGE, INTERNATIONAL CONFERENCE

Solving the Puzzle of Speech Sounds in English Language: AI Prompts for Improvement in Pronunciation

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## Agenda

- Understanding the Nuances of the Phonemes and Allophones in English Pronunciation
- The influence of linguistic background on speech sound variations
- Utilizing AI for enhanced understanding of phonetic distinctions
- Phonetic Variations in English Pronunciation
- How Al prompts can improve English pronunciation effectively

# UNDERSTANDING THE NUANCES OF THE PHONEMES AND ALLOPHONES IN ENGLISH PRONUNCIATION

The pronunciation differences between English and Macedonian illustrate the complexities inherent in learning a new language's sound system.

Modern phonetic instruments can convert speech sounds into visual formats, aiding in the understanding of phonetic distinctions. Phonemes serve as fundamental sound units while allophones represent their varied pronunciations, critical for effective communication.

Contextual factors, including speaker fatigue and environmental noise, contribute to sound variations and can influence comprehension.

# The influence of linguistic background on speech sound variations and basic literature review

- A phoneme is objective and material and it can have infinite number of allophones;
- The phoneme represents distinstive features; the allophone represents non-distinctive features
- Benjamin Lee Whorf introduced the "allophone" in 1940s
- The phoneme is visible found in the IPA; the allophone is invisible – only pronounced



#### Impact of Background on Pronunciation

A speaker's linguistic background significantly affects their pronunciation, often leading to variations that can cause misunderstandings.



#### **Accent Variation Across Cultures**

Accents are reflective of cultural and geographic influences, resulting in distinct pronunciation patterns that enrich language diversity.



#### **Challenges for Language Learners**

Non-native speakers frequently encounter challenges due to phonetic discrepancies that are often imperceptible to the untrained ear.

# Utilizing AI for enhanced understanding of phonetic distinctions

#### Al in Phonetic Education

Artificial intelligence can provide personalized learning tools to facilitate better understanding of phonetic concepts and pronunciation.

#### Minimal Pair Exercises with Al

Al tools can generate examples of minimal pairs, allowing learners to focus on distinguishing similar sounds effectively.

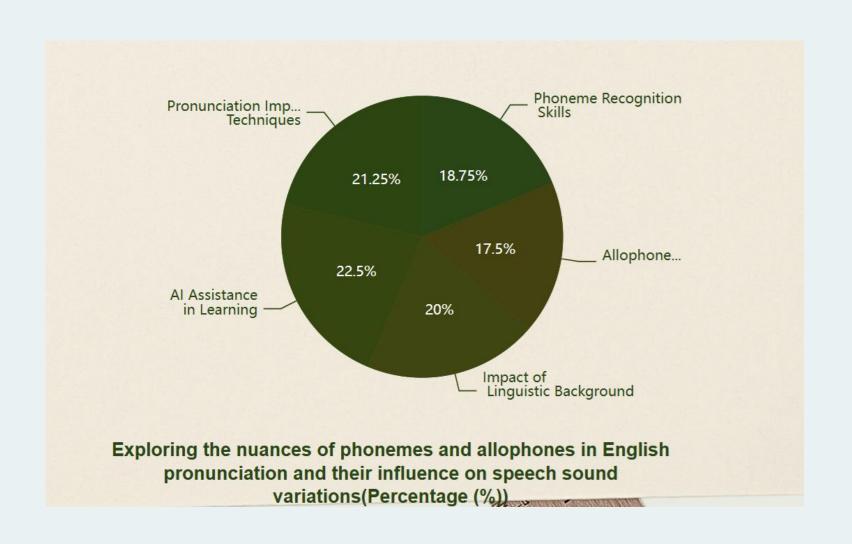
#### Feedback Mechanisms in Language Learning

Al systems can offer immediate feedback on pronunciation, helping learners correct errors and improve their speech clarity.

#### Research Insights on Al Efficacy

Recent studies show Al's potential in language education, particularly in enhancing phonetic transcription accuracy and comprehension.

### Phonetic Variations in English Pronunciation



## How Al prompts can improve English pronunciation effectively



#### Understanding Speech Sound Variations in English

The role of phonemes and allophones in differentiating meanings in English pronunciation is crucial for learners.



#### Practical Al Applications for Language Learners

Al provides practical examples and minimal pairs that assist learners in mastering English sounds effectively.



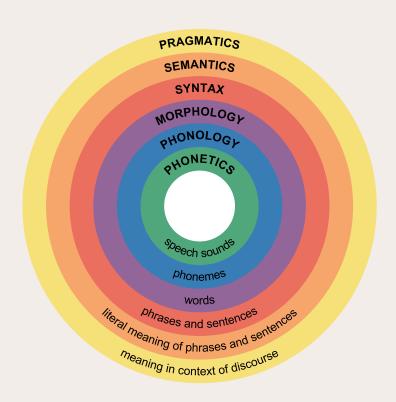
#### Using Al Tools for Phonemic Awareness

Al tools can enhance the awareness of phonemic distinctions, aiding in better pronunciation practices.

#### Overcoming **Pronunciation Challenges** with Technology

Technology addresses common pronunciation issues caused by background noise and speaker fatigue, leading to clearer communication.

# Thank you



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