



MODERN PROBLEMS IN EDUCATION AND THEIR SCIENTIFIC SOLUTIONS

ARTICULATORY AND PHONOLOGICAL VIEWS ON THE CLASSIFICATION OF ENGLISH VOWELS

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Annotation. *This thesis examines the articulatory and phonological approaches to the classification of English vowels. Vowel sounds play a crucial role in the phonetic and phonological structure of the English language. The articulatory perspective focuses on the physical production of vowels, including the position of the tongue, lips, and jaw during speech. The phonological perspective, on the other hand, analyzes vowels according to their functional roles and relationships within the sound system of the language. The study highlights the differences and similarities between these two approaches and explains their significance in modern linguistics and language teaching. The thesis also discusses the classification of English monophthongs and diphthongs and demonstrates how articulatory and phonological analyses contribute to accurate pronunciation and linguistic understanding.*

Keywords: *English vowels, phonetics, phonology, articulation, monophthongs, diphthongs, vowel classification, speech sounds, linguistics, pronunciation*

Introduction

The English language contains a rich and complex vowel system that has attracted the attention of linguists for many years. Vowels are among the most important components of spoken language because they contribute greatly to meaning, pronunciation, and communication. The classification of English vowels can be approached from different linguistic perspectives, particularly articulatory phonetics and phonology.

Articulatory phonetics studies how speech sounds are physically produced by the organs of speech. In this approach, vowels are classified according to the position of the tongue, the shape of the lips, and the openness of the mouth. Phonology, however, examines how vowel sounds function within a language system and how they distinguish meaning between words.

Understanding both articulatory and phonological views is essential for students of linguistics, English language learners, and teachers of pronunciation. These approaches complement one another and provide a comprehensive understanding of English vowel sounds.

Main part

A vowel is a speaking sound that is pronounced without any vocal tract stricture.[1] One of the two main categories of speech sounds, together with consonants, are vowels. Vowels differ in length, loudness, and quality. They are frequently voiced and play a significant





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role in prosodic variety, including stress, tone, and intonation. A vowel sound usually makes up the "center" or nucleus of a syllable.

The Latin term *vocalis*, which means "vocal" (i.e., pertaining to the voice), is where the word vowel originates.[2] The term "vowel" is frequently used in English to refer to both vowel sounds and the written symbols that stand for them: æa," æeæ, 'i—, "•o2, ;uüge, and occasionally (yüge and (w².

Vowels are speech sounds produced without any significant obstruction in the vocal tract. Unlike consonants, vowels are articulated with a relatively open airflow. English vowels are generally divided into two major categories:

1. Monophthongs
2. Diphthongs

Monophthongs are pure vowel sounds pronounced with a stable tongue position, while diphthongs involve a glide from one vowel position to another.

The English vowel system is more complicated than that of many other languages because it includes numerous vowel contrasts based on length, quality, and tongue movement.

Articulatory View of English Vowel Classification

The articulatory approach focuses on how vowels are physically produced. Linguists classify English vowels according to several articulatory features.

Tongue Position

The tongue may move horizontally and vertically during vowel production.

a) Horizontal Tongue Movement

According to the horizontal position of the tongue, vowels are classified into:

- Front vowels
- Central vowels
- Back vowels

1. Front Vowels. These vowels are produced when the tongue is positioned toward the front of the mouth.

Examples:

/i:/ as in see

/ɪ/ as in sit

/e/ as in bed

2. Central Vowels. These vowels are articulated with the tongue placed in the center of the mouth.

Examples:

/ʌ/ as in cup

/ə/ as in about

3. Back Vowels. These vowels occur when the tongue moves toward the back of the mouth.

Examples:





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/u:/ as in food

/ɔ:/ as in law

/ɒ/ as in hot

b) Vertical Tongue Movement

The height of the tongue also affects vowel quality.

Vowels may be:

10. Close (high)

11. Mid

12. Open (low)

Close Vowels. The tongue is raised close to the roof of the mouth.

Examples:

/i:/, /u:/

Open Vowels. The tongue is positioned low in the mouth.

Examples:

/æ/, /ɑ:/

Lip Position in Vowel Production

Another important articulatory factor is the position of the lips.

1. Rounded Vowels. The lips form a rounded shape.

Examples: /u:/, /ɔ:/

2. Unrounded Vowels. The lips remain neutral or spread.

Examples: /i:/, /æ/

Lip rounding influences the acoustic quality of vowel sounds and helps distinguish one vowel from another.

Length of English Vowels

English vowels are also classified according to duration.

1. Short Vowels

Examples: /ɪ/, /e/, /ʊ/

2. Long Vowels

Examples: /i:/, /ɑ:/, /u:/

However, vowel length alone does not determine meaning; vowel quality is equally important.

Diphthongs in English

Diphthongs are complex vowel sounds involving a movement from one vowel position to another within the same syllable.

Examples include:

/aɪ/ as in time

/eɪ/ as in day

/ɔɪ/ as in boy

From the articulatory perspective, diphthongs are dynamic sounds because the tongue and lips change position during pronunciation.





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Phonological View of English Vowel Classification

Phonology studies the functional and structural aspects of vowels within the language system.

In phonology, vowels are considered phonemes because they distinguish meaning between words.

Examples:

ship /ɪ/ vs. sheep /i:/

full /ʊ/ vs. fool /u:/

These examples show that changing a vowel sound can completely alter meaning.

Phonologists analyze vowels through distinctive features such as:

- ✓ High vs. low
- ✓ Front vs. back
- ✓ Rounded vs. unrounded
- ✓ Tense vs. lax

These features help linguists describe relationships between vowel sounds systematically.

Tense and Lax Vowels

Tense vowels are produced with greater muscular tension and are usually longer.

Examples: /i:/, /u:/

Lax vowels are shorter and produced with less tension.

Examples: /ɪ/, /ʊ/

English vowels participate in various phonological processes.

Vowel Reduction

In unstressed syllables, vowels often become the schwa /ə/.

Example:

photograph vs. photography

Vowel Harmony and Alternation

Although English does not have a strong vowel harmony system like some languages, vowel alternations appear in grammatical forms.

Examples:

man → men

sing → sang

The articulatory and phonological approaches differ in focus but complement each other.

Table 1. Comparison of Articulatory and Phonological Approaches

No	Articulatory Approach	Phonological Approach
1	Studies physical production	Studies linguistic function
2	Focuses on speech organs	Focuses on sound systems
3	Describes tongue and lip movement	Describes phonemic contrasts
4	Concerned with pronunciation	Concerned with meaning distinction





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The articulatory approach explains how vowels are produced, while phonology explains why these sounds are important in communication.

Conclusion

The classification of English vowels can be understood effectively through articulatory and phonological perspectives. The articulatory approach provides detailed information about the physical mechanisms of vowel production, including tongue position, lip shape, and vowel length. The phonological approach, meanwhile, examines how vowels function within the language system to create differences in meaning.

Both perspectives are essential in the study of English linguistics. They contribute to better pronunciation teaching, speech analysis, language learning, and phonetic research. Understanding English vowels from both articulatory and phonological viewpoints allows learners and researchers to gain a deeper understanding of the complexity and beauty of spoken English.

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