



VARIATIONS IN VOWEL PHONEMES IN CONNECTED SPEECH

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Annotation. The article reveals vowel phonology in English with a focus on basic concepts, phonemic analysis, change, and phonological rules. Vowel phonology involves the study of vowel sounds in language and the way they are organized and grouped in the language system. Vowel phonemic analysis identifies an inventory of vowel phonemes in English and classifies them based on differences in word meaning. The distribution of vowel phonemics and allophonies describes the mapping of vowel phonemes in a particular phonological context. Vowel phonological changes occur over time and are influenced by factors such as phonetic influences, phonological environment, and contact with other languages. The article also highlights examples of phonological changes in vowels in English, including diphthongs to monophthongs and shifts in vowel sound height. Vowel phonological rules govern the pronunciation of vowel sounds in English, including allophony rules and phonological environmental influences. An understanding of vowel phonology in English has important implications in linguistic analysis and research on the history and change of language.

Keywords: Vowel, phonology, discuss, phonological environment, English, phonemic analysis and vocal.

Аннотация. В статье раскрывается фонология гласных в английском языке с акцентом на основные понятия, фонематический анализ, изменение и фонологические правила. Фонология гласных включает изучение гласных звуков в языке и того, как они организованы и сгруппированы в языковой системе. Фонематический анализ гласных позволяет выявить перечень гласных фонем в английском языке и классифицировать их на основе различий в значении слов. Распределение фонем и аллофоний гласных описывает сопоставление гласных фонем в определенном фонологическом контексте. Фонологические изменения гласных происходят с течением времени и зависят от таких факторов, как фонетические влияния, фонологическая среда и контакты с другими языками. В статье также приводятся примеры фонологических изменений гласных в английском языке, включая превращение дифтонгов в монофтонги и изменение высоты звука гласных. Правила фонологии гласных регулируют произношение гласных в английском языке, включая правила аллофонии и фонологические влияния окружающей среды. Понимание фонологии гласных в английском языке имеет важное значение для лингвистического анализа и исследований истории и изменений языка.

Ключевые слова: Гласные, фонология, обсудите английский язык, фонологическую среду, фонематический анализ и вокал.

Annotatsiya. Ushbu maqolada ingliz tilidagi unli tovushlar fonologiyasi, asosiy tushunchalar, fonemik tahlili, o'zgarishi va fonologik qoidalarga urg'u berilgan. Unli fonologiya tildagi unli tovushlarni va ularning til tizimida qanday tashkil etilganligi va guruhlanganligini o'rganishni o'z ichiga oladi. Unli tovushlarning fonemik tahlili ingliz tilidagi unli fonemalarning ro'yxatini aniqlashga va ularni so'zlarning ma'nosidagi farqlarga qarab tasniflashga imkon beradi. Fonemalar va unililar allofoniyalarining taqsimlanishi fonemalarning muayyan fonologik kontekstda taqqoslanishini tasvirlaydi. Unlilarning fonologik o'zgarishlari vaqt o'tishi bilan sodir bo'ladi va fonetik ta'sirlar, fonologik muhit va boshqa tillar bilan aloqalar kabi omillarga bog'liq bo'ladi. Maqolada, shuningdek, ingliz tilidagi unlilarning fonologik o'zgarishlari, jumladan, diftonglarning monoftonglarga aylanishi va



unlilarning balandligining o'zgarishi misollar keltiriladi. Unlilar fonologiyasi qoidalari ingliz tilida unlilarning talaffuzini, shu jumladan allofoniya qoidalari va atrof muhitning fonologik ta'sirini tartibga soladi. Ingliz tilidagi unlilar fonologiyasini tushunish til tarixi va o'zgarishlarini lingvistik tahlil qilish va tadqiq qilishda muhim ahamiyatga ega.

Kalit so'zlar: *Unlilar, fonologiya, ingliz tili, fonologik muhit, fonematik tahlil va vokal mavzularini muhokama qiling.*

Introduction. Acquiring English skills is definitely a challenging task, particularly for non-native speakers. English holds the position of a leading language spoken around the world in various fields including commerce, governance, technology, research, academics, and several others. In Indonesia, English is classified as a foreign language. This indicates that its usage in daily life is limited, especially among learners. Most exposure to English happens during their education in schools or is focused solely as a language they aim to learn. There are key aspects that need to be learned when studying English.

The way people pronounce a language is a key part of its overall structure. Focusing on how individuals articulate English is a crucial ability. According to Brown, students' pronunciation skills are vital. Being able to converse is equivalent to having knowledge of the language, as speaking is the most fundamental method of interaction. The aspects of verbal communication, such as pronunciation, grammar, vocabulary, fluency, and understanding, are essential basics of speaking [4]. Every language has its unique pronunciation style for effective communication. If pronunciation is poor, it can change the intended meaning and lead to misunderstandings. Clear pronunciation can enhance communication quality, which in turn improves the overall proficiency in a language. Moreover, the sounds that make up phonemes vary among different languages. A sound can be considered a phoneme in one language while not being one in another. [5]

Materials and methods. The alphabet is universal. There are enough symbols so that every sound in every human language could be represented. The alphabet is unambiguous. Every sound would have one symbol, and every symbol one sound. There are 5 vowel and 21 consonant letters when writing, but contrarily, there are 12 vowel sounds, 8 diphthong sounds, 5 triphthong sounds, and 24 consonant sounds when speaking English [6]. English pronunciation does not have a fixed pattern and most of the sound symbols are the same letter used in spelling in the English words, but there are a few different. English shows the inconsistency of pronunciation [4]. Pronunciation book for EFL learners showed only the phonetic symbols but does not show the appearance of a sound in different letters. It is very important to know how one sound exists in different letters. Thus, this study investigated the appearance of vowel sounds in different letters by grouping some letters into one single vowel sound. Learning to pronounce a language is a



very complex task and, as with any other complex learning tasks, the learning process can be facilitated if the task is structured in some way and if the learners aware of what is involved [4].

Nonetheless, numerous learners of foreign languages still struggle with pronouncing English terms. One reason for this issue is the impact of their native language, Bahasa Indonesia, on their desired language, English. Adelia noted that Indonesian learners face challenges in speaking English due to the differences in the phonetic systems of both languages. He further mentioned that students often lack the motivation to verify if their pronunciation is accurate, such as when saying /g/ sounds correctly. Mispronunciation can alter the meaning of a word, which might result in confusion. Students of English as a Foreign Language must grasp the sounds of English to comprehend the language properly. This is the reason why mastering English Phonology is quite essential. Theoretical frameworks in English vowel examination are crucial in comprehending and dissecting the intricate vowel sound frameworks in this language. Phonology is a field within linguistics that investigates sound patterns found in languages and how these sounds create linguistic structures. In the English language, vowels play a vital role in forming words and ensuring correct pronunciation. The pronunciation and application of English vowels can vary greatly, influenced by phonological environments, accents, and different dialects. As a result, grasping the phonological theories relevant to English vowel analysis is crucial to enhance our insight into the vowel phonological system. Within phonology studies, the examination of English vowels presents a fascinating and significant subject. Vowels are the sounds that make up the foundation of each word and are key in verbal expression. However, the vowel system in English is very complex, with various pronunciation variations depending on contextual factors, accents, and dialect variations. To understand and analyze English vowels well, a deep understanding of the phonological theories underlying the study is required. Phonological theories provide a conceptual and analytical framework that allows us to understand vowel sound patterns in English, as well as how those sounds interact in linguistic systems. A key theory in phonology utilized for examining English vowels is the generative theory. This concept involves the ideas of phonemes and allophones, which aid in distinguishing and analyzing variations in English vowel sounds. By applying generative theory, we gain insight into how alterations in context and phonological regulations influence vowel articulation in English. Besides generative theory, optimality theory serves as another crucial basis for analyzing English vowels. This theory interprets sound variation as stemming from clashes between various phonological restrictions [4].



By studying conflicts in constraints and their solutions, optimality theory can shed light on the developing vowel differences in English. Additionally, feature theory plays an important part in the analysis of English vowels. This theory points out phonetic characteristics that set each vowel apart and aids in describing the phonetic distinctions within the English vowel framework. By delineating features on a linguistic level, we can grasp how English vowels are structured and related to one another. Moreover, recognizing variations in dialects and the impact of sociolinguistic factors is crucial when analyzing English vowels. The English language is utilized by numerous social and cultural communities, leading to differences in vowel sounds. Grasping phonological theories can assist us in understanding dialectal variations and the effects of sociolinguistic elements on English vowel sounds. In this light, the exploration and examination of phonological theories in the analysis of English vowels is of high significance. Gaining an in-depth insight into these theories allows us to broaden our comprehension of the English vowel phonological system, while also applying this understanding in English teaching and learning, as well as in future research into vowel phonology. [7]

Results and discussion. Human language resembles the playing of a wind instrument. Various speech sounds in any language arise by directing a stream of air through parts of the upper body, generating different types of vibrations and noises as the air flows. Different types of speech sounds and ways of articulating them represent distinct methods of controlling the air stream. There are six recognized categories of speech sounds: vowels, glides, nasals, liquids, fricatives, and stops. When producing or articulating a sound segment, the speech organs take on specific configurations; the lips may be rounded or stretched, the tongue may be positioned low in the mouth or otherwise, it can have a flat surface or not, air may escape through the mouth or nose, or it may be completely held back, and the vocal cords may vibrate or remain still, among other factors. Each position or movement is known as an articulatory feature. These features always occur in simultaneous groups; no segment can comprise just one feature. [5]

In British English pronunciation, there are 12 monophthongs, 8 diphthongs, and 5 triphthongs. Monophthongs, which are vowel sounds, have a completely open vocal tract, meaning the tongue does not make contact with the upper part of the vocal tract at any specific location, making the term place of articulation not very fitting. This research employed a quantitative descriptive approach through a cross-sectional survey design. A cross-sectional survey design refers to a research method that gathers data from a large group of people at a single point in time to draw conclusions. [6]

As stated by Celce-Murcia, this involves a cross-sectional study where participants are chosen based on the guidelines established by the researcher, without providing



additional treatment. This approach effectively addresses the research questions since it aligns with the aim of conducting this study, which is to derive conclusions from the information gathered from a significant number of participants simultaneously. [7]

Vowel phonology is the area of linguistics that examines the system of vowel sounds within a language. It aims to categorize, recognize, and comprehend the arrangements of vowels in certain linguistic settings. The primary objective of vowel phonology is to explore the distinctions among vowel sounds in a language and to grasp how these sounds interrelate and contribute to the creation of word and sentence meanings.

The phonological functions of vowels in language are as follows:

1. Identifying vowel phonemes: Vowel phonemes are the basic units of sound that distinguish meanings in language. Vowel phonology helps in identifying and distinguishing vowel phonemes present in a language. For example, in English, the vowel phoneme /i/ in the word "sit" is different from the vowel phoneme /ɪ/ in the word "sit".

2. Structuring vowel patterns: Vowel phonology helps in understanding vowel sound patterns and arrangements in a language. These patterns include combinations of vowel sounds in syllables, patterns of emphasis, and vowel patterns in related words.

3. Analyze phonological changes: Vowel phonology studies the changes in vowel sounds that occur in language over time.

This analysis helps in tracing the evolution of language and how vowel sounds can change phonologically.

b. Difference between Vowel Phoneme and Vowel Allophone In vowel phonology, there is a difference between vowel phonemes and vowel allophones.

Here's the explanation: 1. Vowel phonemes: Vowel phonemes are the basic units of sound that distinguish meanings in language. Each vowel phoneme has the ability to be the core of a syllable and can affect the meaning of words. For example, in English, the vowel phonemes /i/ and /ɪ/ can distinguish the words "sit" and "set". 2. Vowel allophone: A vowel allophone is a phonetic variation or realization of a particular vowel phoneme in a specific phonological context. They do not distinguish the meaning of words and usually appear as variations depending on the phonetic context or specific phonemic position.

For example, in English, the vowel phoneme /i/ can have an allophone [ɪ] or [ə] depending on the position in the word. The main difference between vowel phonemes and vowel allophones lies in their role and contribution to the meaning of words.

c. Vowel System in English and Its Classification The vowel system in English consists of a number of vowel sounds that can be distinguished based on certain phonetic parameters such as the height and low of the tongue, the position of the tongue, and the lips.



Vowel sounds in English can be classified into two main categories: monophthongs and diphthongs.

1. Monophthongs:

Monophthongs are single vowel sounds that remain during pronunciation. In English, there are a number of monophthongs, such as /i/ in "beat," /ɛ/ in "bed," /æ/ in "cat," /ɑ/ in "hot," /ʌ/ in "cut," /ɔ/ in "caught," /ʊ/ in "book," and /u/ in "boot."

2. Diphthongs:

Diphthongs are vowel sounds that involve changing the position of the tongue during pronunciation. In English, there are several diphthongs, such as /eɪ/ in "day," /ɔɪ/ in "boy," /aɪ/ in "time," /aʊ/ in "house," and /oʊ/ in "go."

The classification of vowel sounds in English is based on their phonetic and pronunciation characteristics. This classification helps in understanding and describing the vowel system present in English.

In the inventory of vowel phonemics, distinctions in phonemes are indicated by alterations in vowel sounds that lead to changes in meaning in English. b. Phonemic Distribution and Vowel Allophony Vowel phonemic distribution involves assigning vowel phonemes to particular phonological environments in English. In this context, vowel phonemes may exhibit a phonetic variation known as allophony, influenced by the phonetic environment or phonemic place. For instance, the allophony of the phoneme /ɪ/ in English can manifest as [ɪ] in "sit" and as [ə] in "rabbit." The distribution of vowel allophony aids in comprehending the variations in vowel sounds that emerge in English and how these sounds relate to their linguistic context. c. Vocal Phonemic Mapping in the English Sound System Vowel phonemic mapping within the English sound framework entails identifying the phonemic locations of vowel sounds within words and syllable arrangements. For example, the vowel phoneme /i/ in English serves as a closed syllabic core in "sit" and as an open syllabic core in "seat." Furthermore, this mapping necessitates an understanding of allophony and phonemic shifts that take place in English vowel sounds. Such mapping assists in grasping the makeup and structure of vowel sounds in English, alongside offering insights into the phonological principles that dictate the pronunciation of vowel sounds in the language. [7]

There are no barriers to the airflow as it travels from the larynx to the lips during vowel sounds. Unlike consonants, vowels do not have specific "articulation points," which are areas of significant narrowing in the vocal tract. Instead, the entire vocal tract functions as a resonating space. Changing the shape of this space by moving the tongue, jaw, and lips creates various timbres added to the fundamental sound made by the vocal cords.



A vowel that is spoken with a light breath force is known as a lax vowel, while a vowel made with greater energy is termed a tense vowel. It is also explained that there are three types of vowel sounds based on how they are articulated: closed vowel sounds (/i:/ /I/ /v/ /u:/), mid vowel sounds (/e/ /@/ /s:/ /z:/), and open vowel sounds (/æ/ /2/ /a:/ /6/). A gliding vowel, or diphthong, consists of two vowels that act as a single sound. A diphthong creates one syllable, while a combination of two vowel sounds produces two syllables. Diphthongs involve a shift or glide from one vowel sound to another. There is no blockage to the airflow as it moves from the larynx to the lips when a diphthong is articulated.

A triphthong is a smooth transition from one vowel sound to another and then to a third, all articulated quickly and seamlessly. A triphthong consists of five closing diphthongs with a schwa included; [ei+ə], [ai+ə], [au+ə], [əu+ə], [æ+ə]. Ambalegin and Suryani conducted research that found a native language accent can influence the capacity to articulate words in a foreign language.

Conclusion. In the previous content regarding vowel phonology in the English language, a few conclusions can be established: 1. Vowel phonology examines the sounds of vowels and how these sounds are structured and categorized within a language framework. 2. The range of vowel phonemes in English consists of both monophthong and diphthong sounds, which can be recognized due to variations in word meanings. 3. The distribution of vowel phonemes refers to how these sounds fit into specific phonological settings, while vowel allophony is the variation in pronunciation of a phoneme that is influenced by its phonological context. 4. Changes in vowel phonology are alterations that take place in vowel sounds over periods. Elements like phonetic factors, the phonological environment, and interactions with other languages can impact these vowel phonological changes.

5. Vowel phonology rules govern the pronunciation of vowel sounds in English, including pronunciation rules, allophony rules, and phonological environmental influences. 6. Examples of phonological changes in vowels in English include Great Vowel Shift, diphthongs to monophthongs, changes in tongue level and position, and the influence of the phonological environment on variations in the pronunciation of vowel sounds. An understanding of vowel phonology in English is important in linguistic analysis, mapping sound systems, and research into the history and change of language. The way English is pronounced does not follow a fixed rule, highlighting the unpredictability of pronunciation. This variability leads learners of English as a second language to struggle with saying words correctly; for instance, "lay" pronounced as /leI/ or "effect" as /Ifect/ is heard as /laI/ or /@fect/. Correct pronunciation is crucial during



conversation to convey the right meaning and prevent confusion. Understanding the sounds that letters represent and the rules for pronunciation simplifies the process of saying English words correctly.

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