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An Apprehension and Decoding of Phonetic (English Sound Symbols) by Juxtaposing Hindi Alphabets (Indian knowledge System) : A Critical Perspective for Indian Students

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ABSTRACT

English spelling-to-sound inconsistencies present a significant obstacle for Indian learners of English, for whom Hindi's one-to-one grapheme–phoneme correspondence offers a more transparent model. This study proposes an innovative, L1-based decoding approach that leverages Hindi's Varṇamālā—specifically its Svar (vowel) and Vyanjan (consonant) letters—to facilitate the learning of English phonetic sound symbols.

Through a comparative analysis of English orthography and phonetic transcription, we (1) delineate the fundamental divergences between English alphabet letters and International Phonetic Alphabet (IPA) symbols; (2) develop an accessible mapping of English monophthongs onto Hindi Svar and Vyañjan categories; and (3) introduce a tailored framework for mastering English diphthongs via structured analogies to Hindi vowel sequences. By grounding English pronunciation instruction in learners' native phonological knowledge, this methodology aims to enhance phonemic awareness, reduce pronunciation errors, and foster greater confidence in spoken English. The proposed L1-anchored strategy holds promise as a user-friendly tool for second-language pronunciation training.

Keywords: *Phonetics, Phonology, English Sound Symbols, L2 & L1 comparison, English Pronunciation& Hindi.*

1. INTRODUCTION

In April, a discussion was held in Indian Parliament on the English language and its confusing pronunciation. The image (shown below) is a clipping from Dainik Bhaskar, dated April 17, 2025, published from Bhopal. It highlights the persistent struggle over the past 250 years to reform English spelling conventions. Despite numerous efforts to simplify spellings—such as changing "enough" to "enuf," "daughter" to "dawter," or "colonel" to include an 'R'—all initiatives have failed to gain lasting traction. The article humorously questions why the word "colonel" lacks the letter 'R' in its spelling and notes how even parliamentary debates and spelling boards formed to address these inconsistencies have proven ineffective. Media and the public have often ridiculed the proposed simplified spellings. However, the article ends on a hopeful note, suggesting that the discussion is still alive and change may yet be possible.

दैनिक भास्कर

भोपाल 17-04-2025

भास्कर खास अमेरिकी स्पेल बी प्रतियोगिता को अगले माह 100 साल पूरे होंगे, पर उलझन अब भी बरकरार

250 वर्षों से स्पेलिंग सुधार की सभी कोशिशें नाकाम, कर्नल में 'R' क्यों नहीं आता; मामला संसद तक गया... अब उम्मीद जगी है

TIME

दैनिक भास्कर से विशेष अनुबंध के तहत

स्पेलिंग आसान बनाने के लिए बोर्ड तक बना... सुझाए गए शब्दों का मीडिया-जनता ने उड़ाया मजाक

न्यूयॉर्क | अंग्रेजी की वर्तनी में कोई तय नियम नहीं हैं। 'क्वायर' और 'लायर' एक जैसे उच्चारित होते हैं, पर 'डॉटर' व 'लाफ्टर' नहीं। 'निकनैक' में चार K होते हैं, जो बोले नहीं जाते। 'डाउट' में B साइलेंट है, 'कर्नल' में R क्यों नहीं आता। दुनिया की ज्यादातर भाषाओं में उच्चारण व वर्तनी में तालमेल होता है, पर अंग्रेजी में ऐसा नहीं है। इस साल मई में अमेरिकी 'स्पेल बी' प्रतियोगिता को 100 साल पूरे हो जाएंगे। इसमें छात्र सदियों से उलझन में डालती रही शब्दों की वर्तनी की प्रणाली से जूझने आएंगे। अपनी किताब 'Enough is enuf' में गैब हेनरी ने बीते 250 साल में अंग्रेजी की वर्तनी में बदलाव के लिए की गई कोशिशों और इस आंदोलन के थमने की वजह जानने की कोशिश की है। जानिए यह रोचक सफर हेनरी से...

गैब हेनरी

'1768 में अमेरिका के संस्थापक बेंजामिन फ्रैंकलिन ने अंग्रेजी की वर्तनी सुधारने की कोशिश की थी। उन्होंने C, J, Q, W, X और Y को हटाने का प्रस्ताव दिया। उन्होंने friend को frend, could को kuld, busy को bizi और accurate को akiuret लिखने का सुझाव दिया। लेकिन उनकी मित्र मैरी स्टीवेंसन ने इसे खारिज कर दिया। इसके बाद फ्रैंकलिन ने इस विषय पर कभी सार्वजनिक रूप से बात नहीं की।

इसके बाद 1789 में नोहा वेबस्टर ने grief को greef, key को kee, believe को beleev, laugh को laf, daughter को dawter, plough को plow, tough को tuf, prove को proov और blood को blud लिखने का सुझाव दिया। इन सुझावों का मजाक उड़ाया गया। 1829 में ओहायो के टीचर जेम्स रगल्स ने 'यूनिवर्सल लैंग्वेज' का प्रस्ताव रखा। उन्होंने could को cood और know के पास्ट टेंस को noed लिखा।

1906 में न्यूयॉर्क में 'सिंप्लिफाइड स्पेलिंग बोर्ड' बना। इसमें एंड्रयू कार्नेगी, मार्क ट्वेन और सुप्रीम कोर्ट जज डेविड ब्रेवर शामिल थे। बोर्ड ने वर्तनी बदलकर 300 शब्दों की सूची जारी की। तत्कालीन राष्ट्रपति थियोडोर रूजवेल्ट ने इसे अपनाया व सरकारी दस्तावेजों में इस्तेमाल करने का आदेश दिया। आदेश का मीडिया व जनता ने मजाक उड़ाया। न्यूयॉर्क टाइम्स ने रूजवेल्ट को 'हंसी का पात्र' बताया। 'सन' ने लिखा- Mr. Andru Karnegi और President Rusvelt अंग्रेजी की वर्तनी सुधारने की कोशिश कर रहे हैं, पर उनका उद्देश्य हास्यास्पद है। कार्टून छपे, जिसमें रूजवेल्ट डिक्शनरी पर गोली चलाते दिखे। अंततः अमेरिकी संसद ने उनका आदेश रद्द कर दिया। इसके बाद आंदोलन कमजोर पड़ गया।

डिजिटल युग में वर्तनी सुधार की भावना दोबारा दिख रही है। लोग चैट व सोशल मीडिया में thru, tho जैसे शब्द इस्तेमाल कर रहे हैं। स्पेलिंग सुधारक क्रिस्टोफर अपवर्ड ने लिखा था- भाषाएं वक्त के साथ बदलती हैं। आज की पीढ़ी के लिए जो सामान्य है, वह पिछली पीढ़ी को अजीब लग सकता है। उम्मीद है एक दिन अंग्रेजी की वर्तनी सरल हो जाएगी व 'स्पेल बी' प्रतियोगिताएं इतिहास बन जाएंगी। तब enough को enuf लिखना सामान्य हो जाएगा।'- गैब

This research paper aims to address the issues highlighted in the above article and explore effective solutions for the pronunciation challenges in the English language. This study examines the similarities and differences between English (L2) phonetic sound symbols and the Hindi (L1) Swar (vowels), Mātrāyeṅ (vowel diacritics), and Vyanjan (consonants). The research is grounded in the observation that learners of English as a second language (L2) often rely heavily on the basic grammatical structure of their first language (L1)—Hindi. This reliance creates confusion, as students frequently transfer the grammatical rules of L1 to L2, leading to misconceptions and persistent doubts in their understanding of English.

Such interference results in a lack of clarity regarding basic L2 concepts. Students tend to superimpose familiar L1 patterns onto the unfamiliar L2 system, thereby creating unnecessary hurdles in their language acquisition journey. This issue is further compounded by the absence of a natural linguistic environment for English (L2), making the learning process even more challenging.

The research identifies the following key challenges faced by students while learning English as a foreign language:

- Acquiring new alphabets, sentence structures, and fundamental grammar rules
- Mastering the correct pronunciation of sounds and symbols
- Learning to write and speak with accurate sequence and articulation

- Expressing appropriate emotions through vocabulary and sentence construction
- Understanding advanced grammar and figures of speech

By conducting a comparative analysis of the phonemic systems of L1 and L2, this research aims to bridge the gap in understanding and provide pedagogical strategies to address these challenges more effectively.

The basic difference between two languages, is that we write Hindi as we speaks but whereas English concerns, we use alphabets for writings and Phonetic symbols for speaking or pronunciation. Phonetics and phonology play a crucial role in developing students' linguistic competence (ISMAIL, 2025), particularly in enhancing their pronunciation and understanding of the English sound system. However, despite their importance, these areas are often perceived as difficult by learners. This is primarily due to the theoretical complexity and the technical terminology associated with phonetic and phonological studies, which can create a barrier to effective learning and engagement.

In English, there's no direct match between writing and pronunciation systems. Diana (Diana, 2014) notes that while English writing employs 26 letters, Standard British English encompasses around 44 speech sounds. The count of speech sounds varies across dialects, subject to researcher interpretation (Ponidi, Sabarudin, & Arasuli, 2021).

Phonetics and phonology pose considerable challenges for both learners and educators, especially in the Indian education system, where structured methodologies are often lacking. These difficulties are intensified in second language (L2) English learning due to limited natural exposure. Without immersive linguistic environments, students struggle to grasp and apply sound patterns effectively. In phonology, a key area of focus is pronunciation—the articulation of sounds—which plays a crucial role in understanding the sound structure of language. (Endahati & Hum 2018,h.8).

While phonemic awareness is gaining attention at the pre-primary level in Tier 1 cities, students in Tier 2 and Tier 3 cities still struggle with phonetic sound symbols. This gap is widened by the exclusion of phonetics and phonology from many undergraduate and postgraduate curricula. As a result, learners face persistent challenges in mastering essential pronunciation skills needed for effective English communication. Although phonetic symbols aid in accurate sound production, their misuse can lead to serious misunderstandings. (Kinanti, Khualid, & Lubis, 2024).

2. RESEARCH OBJECTIVES

The objectives of this research paper are as under:-

1. To enhance the understanding of phonemes and simplify their learning process for Indian students.

2. To distinguish between English alphabet letters and phonetic sound symbols.

3. To analyze the similarities between Hindi Swar and Vyanjana and English phonemes, including sound symbols and monophthongs.

4. To critically examine the differences between Hindi Kakhara and English diphthongs.

5. To explore simpler and more accessible methods for learning phonetic transcription of English words for Indian learners.

6. To support native Hindi speakers in learning English as a second language, by aligning instruction with their linguistic background and learning needs.

7. To demonstrate the relationship between English phonemes and Hindi Kakhara (alphabets), facilitating a comparative understanding that bridges L1 and L2 phonological systems.

Expected Outcomes of the Study

1. Development of an innovative, learner-friendly approach for teaching and learning phonemes that effectively addresses the challenges faced by second-language learners.

2. Availability of accessible and practical teaching resources that simplify the understanding and instruction of phonetics and phonology.

3. Improved linguistic proficiency in both English and Hindi, achieved through the integration of the Hindi Varnmālā to support phonemic awareness.

4. Increased accuracy and confidence in English pronunciation, as learners become better equipped to articulate unfamiliar words.

5. Enhanced ability to interpret and apply phonetic transcription, enabling learners to read dictionary notations and pronounce new words correctly and independently.

3. REVIEW OF LITERATURE

English holds significant heritage value as a member of the Germanic language family, with its historical lineage shaping its structure, vocabulary, and cultural influence over time (Ordeniza & Lucas, Vol-1, Issue-2, July 2022). Before the 14th century, English existed primarily as a Midlands dialect, limited to a small region of England. Education during this period was largely conducted in French, Greek, and Latin, reflecting the cultural and intellectual influence of France and Greece. French, in particular, had a profound impact on the development of English, contributing new suffixes and influencing its phonological patterns. (e.g., introducing the /ʒ/ sound as in "pleasure"). Chaucer, often regarded as the Father of English, played a pivotal role in the evolution of the language by championing the use of English in literary writing, at a time when Latin and French dominated scholarly and artistic expression (Smith, Volume 24, 2002). Despite its rise to becoming the world's third most spoken language and a global lingua franca, English continues to perplex foreign learners due to its inconsistencies in spelling and pronunciation. This complexity stems from its historical evolution—from a language once closely aligned with its written form to one marked by irregularities. Key influences in this transformation include wars, invasions, the invention of the printing press, and the Great Vowel Shift. The recorded history of English is conventionally divided into three main periods: Old English (OE), Middle English (ME), and Modern English (MDE), each reflecting distinct linguistic and cultural developments. (Richard Hogg; David Denison Ed., 2006)

Old English (OE): From its introduction on the island of Britain to the end of the eleventh century, characterized by distinct Germanic roots and influences.

Middle English (ME): From around the end of the eleventh century to the end of the fifteenth century, marked by significant changes in vocabulary, grammar, and pronunciation due to Norman French and Latin influences.

Modern English (MDE): From around 1500 to the present day, featuring further evolution and standardization of the language, including the Great Vowel Shift and the Renaissance.

While the conventional division of English into Old English, Middle English, and Modern English is useful for reference, it remains somewhat arbitrary, with transition dates often debated among scholars. Alternative periodizations also exist, and further subdivisions—such as Early and Late Modern English—are commonly used. These classifications serve as frameworks to aid in understanding the historical development of the language, but they should not be followed rigidly without considering broader linguistic and historical contexts. The complexity of English is further intensified by the influence of multiple languages over time, contributing to its vast and diverse vocabulary. Nevertheless, despite its irregularities and challenges, English continues to hold a central role in global communication, particularly in fields such as business, science, politics, medicine, and technology. Phonetic symbols serve as a visual representation of speech sounds, aiding learners in accurately producing and distinguishing sounds that may be unfamiliar or challenging. (Y, E, & S, 2023). The use of phonetic symbols across several prominent traditions, including the early Amerindianist work of the Boas school, the American structuralist phonetics and phonology associated with Bloch, Smith, and Trager, and the globally recognized transcription system of the International Phonetic Association (IPA) (Geoffrey K. Pullum, 1996).In the field of phonetics and phonology, the work that has been done until now mostly focuses on the systematic study of sound formation, including various vowel and consonant sounds, from the air pipe to the nasal and oral cavities of the mouth, and the positions of the tongue during sound formation. Many authors have described the articulation of these symbols. Ivy Houser, Divyanshi Shaktawat, and Nina Topinzi have conducted research exploring the analytical study procedure of phonetics and phonology. Several authors have worked hard to find connections between English and foreign languages such as Mandarin, Thai, and Arabic. Mompean J. has written an article exploring the potential of phonetic symbols in pronunciation teaching and learning, focusing on English language instruction. She has concentrated her study on pronunciation instruction in second-language teaching literature, while A. Gilakjani has focused on Phonetics Teaching instruction.

Phonological rules govern the correct pronunciation of words, an area in which many students face considerable challenges when learning English. In the digital era, there is a growing need for simplified and accessible tools to support pronunciation learning. 'English Sound' is one such application designed to assist students in improving their pronunciation through interactive and user-friendly methods. (Febian1, Mabrurah2, Affara3, Lailind, Nazulfa4, & Agustiningsih5a, 2022). Achieving native-like pronunciation in English poses a significant challenge for non-native speakers across the globe, primarily due to the interference of their mother tongues. This linguistic influence varies across geographical regions and deeply affects English as a Second Language (ESL) pronunciation, particularly within the broader context of English as a Lingua Franca (ELF) (Qader, Rahman, & Monira, 2023). The rise of English as a Lingua Franca (ELF) has led to a shared ownership of its diverse varieties among both native speakers (NS) and non-native speakers (NNS), (Hall, 2017)In essence, research demonstrates that communicative pronunciation teaching significantly enhances L2 learners' intelligibility and comprehension. However, recent studies reveal that its implementation is often inconsistent and informal, typically occurring through recasts or prompts. This inconsistency may be attributed to a lack of clear guidance and training for L2 teachers on how to effectively integrate communicative pronunciation teaching into their classroom practices. (Nguyen, 2024)

Although researchers worldwide have made significant efforts to simplify phonetic sound symbols and improve pronunciation for L2 learners whose native languages are not English, there remains a lack of research specifically addressing

the relationship between L1 (Hindi) and L2 in the context of Indian students. This paper aims to contribute to this underexplored area by taking initial steps toward bridging that gap.

The History of Phonology

Phonetics can be comprehensively defined as the scientific study of spoken language, aiming to describe, model, and explain the processes of speech communication across diverse languages around the world. (Kohler, 2009). The study of language system is called phonology (Crystal, 2011), whereas, the study of pronunciation is called phonetic. To accurately describe the sounds of speech, it is essential to understand the unique characteristics of an individual's voice and how each sound differs in form from others. Linguistic theory encompasses several core components, including phonology, morphology, syntax, and semantics, all of which contribute to the analysis of language structure. Additionally, linguistic inquiry involves examining language in its social context, tracing the evolution of specific languages, investigating language acquisition, conducting experiments on language perception, production, and comprehension, developing computational models to simulate language processes, and exploring the historical development of the field of linguistics. (Vajda, Vol. 76, No. 4 (Dec., 2000))

The concept of phonemes can be traced back to the early twentieth century, marking the emergence and evolution of a specialized genre of learner's dictionaries. Pioneered by H. E. Palmer and A. S. Hornby, these dictionaries were specifically designed to meet the needs of learners for whom English was a foreign language, incorporating phonemic information to aid in pronunciation and language acquisition. (Lewis, Volume 44 , Issue 1 , April 2014). Historical studies reveal that pronunciation instruction began to gain prominence in second language classrooms only in the latter half of the nineteenth century. Pioneers such as Berlitz, Gouin, Marcel, and Prendergast initiated a departure from traditional grammar-translation methods during the 1850s, setting the stage for a more communicative approach to language teaching. A major milestone was the establishment of the International Phonetic Association in Paris between 1886 and 1889, which significantly influenced the standardization and advancement of pronunciation instruction. This momentum continued into the mid-20th century, with a growing interest in adopting innovative and effective methods for teaching pronunciation between the 1950s and 1970s. (Reed, Levis, & Ed., 2015).

In 1886, a group of language teachers in Paris formed the Phonetic Teachers' Association (FTA) to promote the use of phonetic writing in schools. Led by Paul Passy, the organization evolved into the Association Phonétique in 1889 and later became the International Phonetic Association (IPA) in 1897. By 1914, it had members in over 40 countries, although its activities were disrupted by the outbreak of World War I. One of the IPA's most significant contributions was the creation of the International Phonetic Alphabet (IPA), a standardized system for representing the sounds of all spoken languages. The IPA was formally registered as a British company on June 30, 2015, with the aim of advancing the study of phonetics and its practical applications.

The IPA identifies a total of 44 distinct sounds in English—comprising 20 vowel sounds and 24 consonant sounds. Before exploring these in detail, it is essential to clarify corresponding terminology in Hindi: letters are called Akshar, vowels are referred to as Swar or Matrayein, and consonants are known as Vyanjan. Vowel sounds are further classified into monophthongs and diphthongs, with the IPA recognizing 12 monophthongs and 8 diphthongs. Of the 24 English consonant sounds, 22 are found in the Hindi Vyanjan set. While diphthongs are not naturally present in Hindi, similar sounds can be produced by combining two vowel sounds, or matrayein, making the articulation of diphthongs accessible to Hindi speakers through analogical combinations.

Research Methodology

To address the challenges discussed above, this paper will employ a fresh approach, guided by the following methodology:

1. A detailed study and understanding of the fundamental differences between English alphabet letters and phonetic sound symbols.

2. Enhanced comprehension of monophthongs (phonetic sound symbols) in relation to Swar and Vyanjan in Hindi.

3. A more accessible approach to understanding diphthongs, specifically tailored to improve pronunciation for Indian learners.

Furthermore, a review of relevant online research papers will be conducted to incorporate existing scholarly insights. This will support the development of an innovative pedagogical approach for teaching English pronunciation effectively to Indian students.

4. THE COMPARATIVE STUDY OF ENGLISH ALPHABETS AND PHONETIC SOUND SYMBOLS

In English, there are 26 alphabet letters used primarily for writing, whereas there are 44 phonetic symbols used for representing pronunciation. Out of 44 phonetic sound symbols vowel sounds are 20 in number, out of which 12 sounds are monophthongs and 8 are diphthongs, and 24 are consonants sounds. To distinguish phonetic sound symbols from regular alphabet letters, these symbols are conventionally written between two slashes—for example, /p/, /ʃ/, or /æ/. This notation

helps clearly indicate that the reference is to a sound rather than a letter.

e.g. English alphabet I is when mentioned in phonetic symbols is as /i/.

The English alphabet consists of 26 letters, which are as follows:

A, B, C, D, E, F, G, H, I, J, K, L, M, N, O, P, Q, R, S, T, U, V, W, X, Y, Z

Out of these, 5 are vowels: A, E, I, O, U

The remaining 21 letters are consonants: B, C, D, F, G, H, J, K, L, M, N, P, Q, R, S, T, V, W, X, Y, Z

> Note: The letter 'Y' can function as both a vowel and a consonant, depending on its position and usage in a word (e.g., vowel in myth, consonant in yes).

In contrast, phonetics uses 44 symbols to represent the actual sounds of English speech. These symbols include: 20 vowel sounds (including 12 monophthongs and 8 diphthongs)

Monophthongs (12)

In the process of learning a foreign language, learners frequently assimilate unfamiliar vowel sounds into the framework of their native vowel system. This process becomes increasingly complex for individuals who have multiple vowel systems within their linguistic repertoire. > Learners often adjust foreign vowels to match their native system—a challenge intensified for those with multiple vowel systems. (Masykar, Pillai, & Hassan, 2023). Second language (L2) phonology explores how learners acquire L2 sounds, typically shaped by their native language (L1) sound system. (Best, 1995; Best & Tyler, 2007; Escudero, 2009; Flege, 1995). Various approaches, including acoustic measurements, phonological system comparisons, and perceived similarity evaluations by L2 learners, explore the likeness between L1 and L2 sounds. The perceptual assimilation task is a prominent method for assessing this similarity, as it relies on learners' perception to gauge the resemblance between L1 and L2 sounds.

S. No.	Sound	Example	IPA
1	ee	seat	/iː/
2	i	sit	/ɪ/
3	e	bed	/e/
4	a	cat	/æ/
5	u	cup	/ʌ/
6	ə	answer	/ə/
7	oo	book	/ʊ/
8	ue	food	/uː/
9	aw	law	/ɔː/
10	o	hot	/ɒ/
11	ar	car	/ɑː/
12	er	bird	/ɜː/

Diphthongs (8)

Diphthongs are a type of vowel marked by a smooth glide from one vowel sound to another within a single syllable. Unlike monophthongs, which are simple or pure vowels produced with a stable tongue position, diphthongs involve a shift in articulation. Both sounds in a diphthong maintain their original quality without blending. (Pratiwi & Indrayani, 2021).

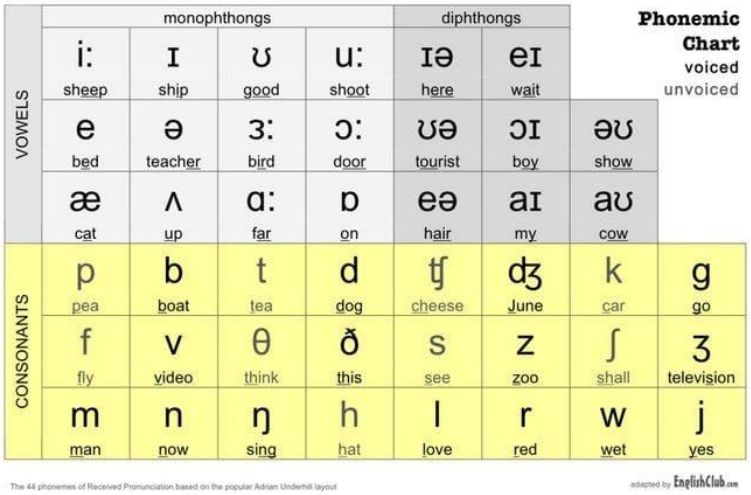
S.No.	Sound	Example	IPA
1	ai	time	/aɪ/
2	ei	say	/eɪ/
3	ɔi	boy	/ɔɪ/

4	aʊ	now	/aʊ/
5	əʊ	go	/əʊ/
6	ɪə	here	/ɪə/
7	eə	hair	/eə/
8	ʊə	pure	/ʊə/

24 consonant sounds,

S.No.	Sound	Example	IPA
1	P	pen	/p/
2	b	bat	/b/
3	t	top	/t/
4	d	dog	/d/
5	k	cat	/k/
6	g	go	/g/
7	f	fish	/f/
8	v	van	/v/
9	θ	think	/θ/
10	ð	this	/ð/
11	s	sun	/s/
12	z	zoo	/z/
13	ʃ	ship	/ʃ/
14	ʒ	vision	/ʒ/
15	h	hat	/h/
16	tʃ	chair	/tʃ/
17	dʒ	jam	/dʒ/
18	m	man	/m/
19	n	nose	/n/
20	ŋ	sing	/ŋ/
21	l	leg	/l/
22	r	red	/r/
23	j	yes	/j/
24	w	win	/w/

Phonetic symbols are placed between two slashes—for example: /t/, /i:/, /ʃ/—to indicate that they represent sounds, not letters.



Juxtaposing Monophthongs (Phonetic Sound Symbols) and Hindi's Swar and Vyanjan

We have already discussed the phonetic sound symbols of English vowels and consonants. Now, we aim to revisit the Hindi Kakhara for Indian learners, which they were introduced to during their primary education.

In Hindi script (Devanagari), the alphabet system comprises a total of 50 letters, known as 'Akshar'. These are divided into two main categories:

These are classified into:

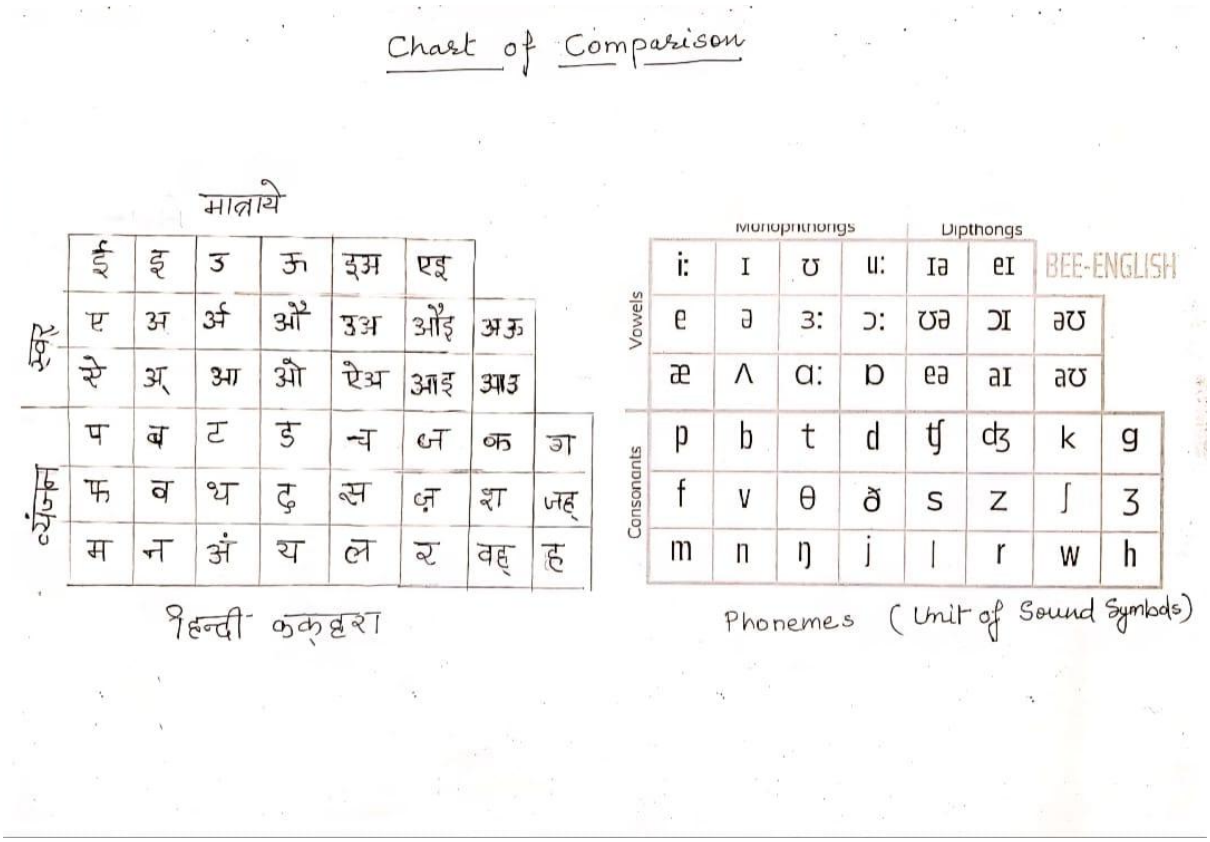
Swar (स्वर) - 13 Swar (vowels) sounds. There are 13 vowels such as अ, आ, इ, ई, उ, ऊ, ऋ, ए, ऐ, ओ, औ, अं, and अः.

Vyanjan (व्यंजन) - Consonant sounds. There are 37 consonants like क, ख, ग, घ, च, छ, etc.

This revision will help bridge learners' existing knowledge of Hindi phonetics with their ongoing study of English phonemes, fostering a deeper understanding of pronunciation and articulation across both languages.

> Note: Some sources list 11 vowels and 33 consonants as the basic set, while others include additional letters like अं (anuswar), अः (visarga), and others for a total of 50. Our number aligns with the broader version often taught in traditional schools.

So for understanding the vowel and consonant symbols we have prepared a chart where we have juxtaposed symbols of both:-



Indian students who have previously learned the pronunciation of the Hindi Varnamala (KakhaRa) can more easily recognize and reproduce the pronunciation of Swar (vowel sounds) and Vyanjan (consonant sounds). These letters are not just symbols but represent specific sounds in a phonetic system that is more systematic than English.

Thus, students trained in this system can easily grasp phonetic concepts, such as vowels and consonants, in English too, to enhance their understanding, we will follow the traditional Hindi sequence of Akshar (letters), as it offers a logical and phonetic order that supports clear articulation and classification of sounds.

Vowel Sounds: -

No. Swar (Letter) Pronunciation Example Word

1	अ	/ə/	**A**mong
2	आ	/a:/	**A**rm
3	इ	/ɪ/	**Ki**d
4	ई	/i:/	**Wee**kly
5	उ	/ʊ/	**Goo**d
6	ऊ	/u:/	**Coo**l
7	ए	/e/	**E**nd
8	ऐ	/æ/	**Ca**n

9	ओ	/oː/	**O**nly
10	औ	/ɔː/	**Au**ght
11	अं	/əŋ/	Ri**ng**
12	अः	//\ /	**U**p

Notes:

अं (Anuswar) or half sound of अ (a) and अः (Visarga) half अ and half र are sometimes considered additional sounds and not vowels in some modern classifications. However, traditionally, they are included in the list of 13 Swar in school books.

Each Swar has a corresponding Matra (मात्रा) used when modifying consonants (e.g., आ = ा, इ = ि, ई = ी

S.No.	Swar (स्वर)	Matra (मात्रा)
1	अ	(no matra)
2	आ	ा
3	इ	ि (appears before)
4	ई	ी
5	उ	ु (below)
6	ऊ	ू
7	ऋ	ृ (Not found in Phonetic Sound Symbols)
8	ए	े
9	ऐ	ै
10	ओ	ो
11	औ	ौ
12	अं	ं (bindu/anuswar)
13	अः	ः (visarga)

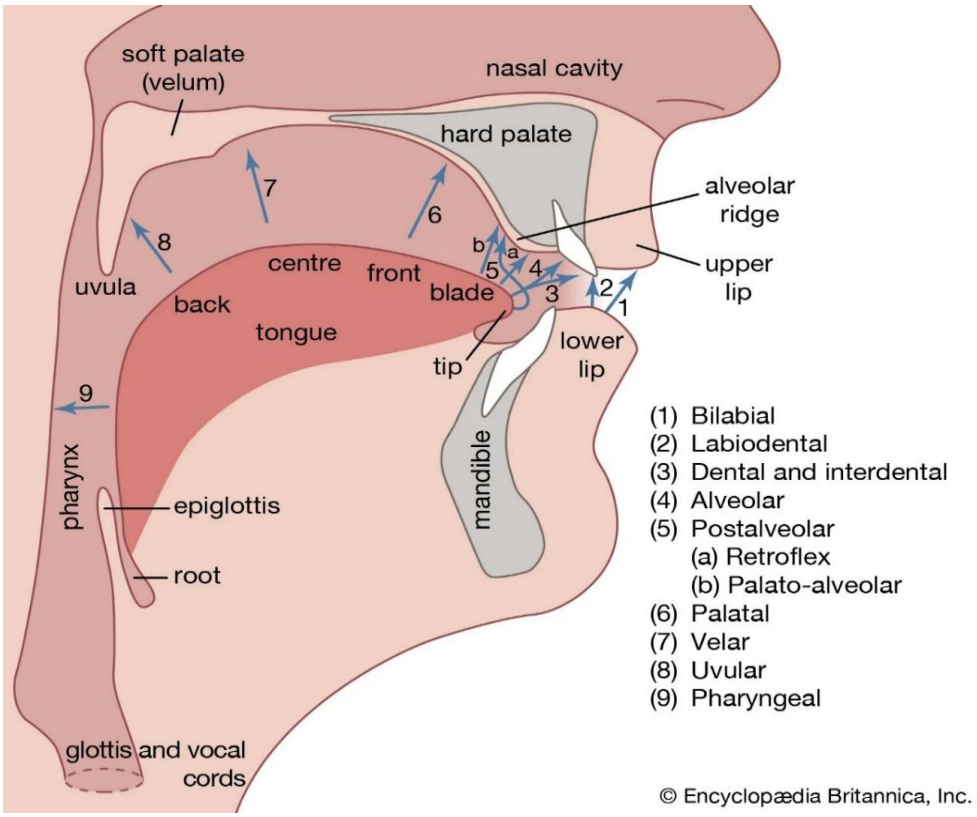
Consonants: -

In Hindi, Vyanjan (व्यंजन) are consonants. Traditionally, there are 33 main Vyanjan, and including some additional sounds, the total can go up to 37 or more depending on regional or linguistic classifications.

List of Hindi Vyanjan (33 Consonants):

S, No	Group	Letters (Vyanjan)	Description
1	Velar	क, ख, ग, घ, ङ	Sounds produced at the soft palate
2	Palatal	च, छ, ज, झ, ञ	Sounds produced at the hard palate
3	Retroflex	ट, ठ, ड, ढ, ण	Tongue curled back to the palate
4	Dental	त, थ, द, ध, न	Tongue touches the teeth
5	Labial	प, फ, ब, भ, म	Sounds produced with the lips
6	Semivowels	य, र, ल, व	Glides or soft sounds

7	Sibilants	श, ष, स	Hissing or hushing sounds
8	Aspirate	ह	Breath-heavy sound



Comparing Consonants: -

Below showing a detailed table of Hindi Vyanjan (Consonants) with their phonetic (phonics) equivalents, IPA symbols, and example Hindi words. This table will help learners connect Hindi consonants to their correct pronunciation in phonics or speech sound terms.

Hindi Vyanjan with Phonics and Examples

S.No.	Hindi Vyanjan	Phonetic Sound (IPA)	Phonics (Approx.)	Example Word
1	क	/k/	k in "kite",Cool	कुत्ता (kuttaa)
2	ग	/g/	g in go"	गाड़ी (gaadi)
3	ङ	/ŋ/	ng in "sing"	ङ्ग (ing)
4	च	/tʃ/	ch in "chop"	चाय (chaay)
5	ज	/dʒ/	j in "jam"	जग (jug)
6	ट	/ʈ/	retroflex ṭ	टोकरी (tokri)
7	ड	/ɖ/	retroflex ḍ	डमरू (damru)
8	थ	/ʈ͡ʰ/	(aspirated)	थाली (thaali)
9	द	/d̪/	d (dental)	दरवाज़ा (darwaza)

10	न	/n/	n in "no"	नाम (naam)
11	प	/p/	p in "pen"	पतंग (patang)
12	फ	/f/	f & ph (aspirated p)	फल (phal)
13	ब	/b/	b in "bat"	बच्चा (bachcha)
14	म	/m/	m in "man"	मछली (machhli)
15	य	/j/	y in "yes"	यज्ञ (yagya)
16	र	/r/	r (flap)	राजा (raaja)
17	ल	/l/	l in "love"	लड्डू (laddoo)
18	व	/v/	V in Van/Water	वायु (vaayu)
19	व	/w/	w in What, When	Not in Hindi
20	श	/ʃ/	sh in "ship"	शेर (sher)
21	स	/s/	s in "sun"	सफेद (safed)
22	ह	/ɦ/	h in "hat"	हाथ (haath)

Observations And Discussions

This has been observed that mix vowels (named diphthongs) are not existed in Hindi language. That is why it is difficult for Indian learners to understand the pronunciation of the word with diphthongs. For example the pronunciation of word 'take' in English is /teik/ but Indian students pronounce it as tek.

To rectify this error we can teach the students that there are two vowels together pronounced in 8 diphthongs such as

Sound	हिंदी उच्चारण	Example	IPA
Ai	आई	time	/aɪ/
Ei	एइ	say	/eɪ/
ɔi	औइ	boy	/ɔɪ/
aʊ	आऊ	now	/aʊ/
əʊ	अऊ	go	/əʊ/
ɪə	इअ	here	/ɪə/
eə	एअ	hair	/eə/
ʊə	उअ	pure	/ʊə/

Following two consonant sounds of Phonology are not found in Hindi varnmala:

Z	zoo	/z/
ʒ	vision	/ʒ/

Likewise, one vowel sound symbol is also not in Hindi as under: -

ɜ:	Learn	/ɜ:/

Similarly, the following akshar are not exist in English language.

S.No.	Akshar	Symbol	Explanation	Word in Hindi
1	ख	/kʰ/	kh (aspirated k)	खड़की (khidki)
2	घ	/gʰ/	gh (aspirated g)	घर (ghar)
3	छ	/tʃʰ/	chh (aspirated ch)	छाता (chaata)
4	झ	/dʒʰ/	jh (aspirated j)	झील (jheel)
5	ञ	/ɲ/	ny in "canyon"	ज्ञानी (gyaani)
6	ठ	/ʈʰ/	ṭh (aspirated)	ठंडा (thanda)
7	ढ	/ɖʰ/	ḍh (aspirated)	ढोल (dhol)
8	ण	/ɳ/	ṇ (retroflex n)	पाणि (paani)
9	त	/t̪/	t (dental)	तकिया (takiya)
10	ध	/d̪ʰ/	dh (aspirated)	धन (dhan)
11	भ	/bʰ/	bh (aspirated b)	भालू (bhaloo)
12	ष	/ʂ/	retroflex ṣh	षड्यंत्र (shadyantra)

Furthermore, in Hindi, there are two main uses of the half 'र' (half 'ra'): Reph (रेफ)and Paden (पदेन).

Reph:

Reph is used when 'र' appears in its half form before a consonant. In such cases, 'र' is written as a mark above the following consonant.

Examples:

कर्म (karma) – 'र' is placed above म.

धर्म (dharma) – 'र' is placed above म.

सूर्य (surya) – 'र' is placed above य.

Paden:

Paden is used when a consonant is in its half form before 'र'. In this case, 'र' is written below the half consonant.

Examples:

क्र (kra) – 'र' is placed below क.

प्र (pra) – 'र' is placed below प.

ट्र (ṭra) – 'र' is placed below ट.

Other Uses:

In some cases, 'र' is also used as a vowel, such as in ऋ (ri).

Examples:

कृपा (kripā) – 'ऋ' appears below क.

पृथ्वी (prithvi) – 'ऋ' appears below प and थ.

5. RESULTS & SOLUTION

By applying the principles of L1 varnmala (Hindi alphabet) to English words, learners can significantly improve their understanding of correct English pronunciation. Learning phonetic transcription and using the Hindi reading method can help unravel the mystery of English pronunciation. Instead of relying on English orthography (spelling), learners should focus directly on the phonetic sound symbols. This approach can be effectively demonstrated through the following examples:

We use symbol /a/ for the sound of अ for example:

Phonetics Transcription: /m/+/ə/+/ð/+/ ə ʳ/= /məðəʳ/

हिंदी उच्चारण म+द+अ = मदअ

So, phonetic sound symbols can help us understand that the correct pronunciation of 'mother' is मदअ, not मदर, as commonly mispronounced by Indian students.

Note : The letter 'R' is often either minimally pronounced or completely silent when it appears at the end of a word.

We use symbol / /\ / for the sound of आधा 'अ' for example:

Phonetics Transcription : / /\ /+/m/+/a/+/ŋ/ = / /\ maŋ/

हिंदी उच्चारण अ:+म+अ+ न्+ग = अमंग

We use symbol /a:/ for the sound of 'आ' for example:

Phonetics Transcription : /a: /+/r/+/m/ = / a:rm/

हिंदी उच्चारण आ+र्म = आ+र्म

Note: आधा 'र' is write as रेफ (ऊपर लगने वाला र) के लिए, 'र' को उस अक्षर के ऊपर लगाया जाता है जिसके बाद उसका उच्चारण होता है, जैसे 'कर्म' (kar+m) में।

We use symbol /i / for the sound of 'इ' for example:

Phonetics Transcription : /ʃ/+/i/+/p/ = /ʃip/

हिंदी उच्चारण : श+इ+प = शिप

We use symbol /i:/ for the sound of 'ई ' for example:

Phonetics Transcription : /ʃ/+/i:/+/p/ = /ʃi:p/

हिंदी उच्चारण : श+ ई+प = शीप

We use symbol /u/ for the sound of 'उ ' for example:

Phonetics Transcription : /g/+/u/+/d/ = /gud/

हिंदी उच्चारण: ग+उ+ड = गुड

We use symbol /u: / for the sound of 'ऊ ' for example:

Phonetics Transcription : /p/+/u:/+l = /pu:l/

हिंदी उच्चारण: प+ऊ +ल = पूल

We use symbol /e / for the sound of 'ए ' for example:

Phonetics Transcription : /f/+/r/+/e/+/n/+/d/ = /Frend/

हिंदी उच्चारण: फ+र् +ए+ न् +ड = फ्रेंड

We use symbol / æ / for the sound of 'ऐ' for example:

Phonetics Transcription : /k/+/æ/+/n/ = /kæn/

हिंदी उच्चारण: क+ऐ+न =कैन

We use symbol /ɔ/ for the sound of 'ओ ' for example:

Phonetics Transcription : /ɔ/+/n/+/l/+/i:/ = /ɔnli:/

हिंदी उच्चारण: ओ+न+ल+ई - ओनली

We use symbol /ɔ:/ for the sound of 'औ ' for example:

Phonetics Transcription /ɔ:/+/s/+/ə/+/m/ = /ɔ:səm/

हिंदी उच्चारण: औ+स+म = औसम

We use symbol /ɜ:/ for the sound of 'अ र् ' for example:

Phonetics Transcription : /L/+/ɜ:/+/n/ = /Lɜ:n/

हिंदी उच्चारण: ल++र्+न = लर्न

The difference of pronouncing small उ and long ऊ can be find out by phonetic transcription than English word where both used oo in spelling:

/g/ + /u/ + /d/ = /gud/ = Good

ग +उ+ ड = गुड

and

/k/+/u:/+/l/ = /ku:l/ =Cool

क+ऊ+ल = कूल

Though we write क in English with different letters such as King, Cool, Chemist and Queen but the phoneme for क is only one that is /k/.

6. DIPHTHONGS

Since diphthongs are absent in Hindi, Indian students often face difficulty in acquiring the correct accent in English. However, by using the method outlined above, proper pronunciation can be attained.

In the word 'here' or 'hear' we use symbol /iə/ for the sound of 'इअ' for example:

Phonetics Transcription : /h/+/ iə /+/ʳ/ = /hiəʳ/

हिंदी उच्चारण: हि+अ = हिअ

In the word 'poor' we use symbol /uə/ for the sound of 'उअ' for example:

Phonetics Transcription : /p/+/ uə /+/ʳ/ = /puəʳ/

हिंदी उच्चारण: प+उ +अ = पुअ

In the word 'hair', we use symbol /eə/ for the sound of 'एअ' for example:

Phonetics Transcription : /h/+/ eə /+/ʳ/ = /hiəʳ/

हिंदी उच्चारण: ह+ए+अ = हेअ

In the word 'make', we use symbol /ei/ for the sound of 'एइ' for example:

Phonetics Transcription : /m/+/ei /+/k/ = /meik/

हिंदी उच्चारण: म +ए+इ +क = मेइक not मेक

In the word 'boy', we use symbol /ɔi/ for the sound of 'औइ' for example:

Phonetics Transcription : /B/+/ɔi / = /Bɔi/

हिंदी उच्चारण: ब +औ+इ = बौइ

In the word 'my', we use symbol /ai/ for the sound of 'आइ' for example:

Phonetics Transcription : /m/+/ ai /+/ʳ/ = /mai/

हिंदी उच्चारण: म+आ+इ = माइ

In the word 'go', we use symbol /əu/ for the sound of 'अउ ' for example:

Phonetics Transcription : /G/+/ əu / = /Gəu/

हिंदी उच्चारण: ग+अउ = गअउ

In the word 'Now', we use symbol /iə/ for the sound of 'आउ ' for example:

Phonetics Transcription : /n/+/ au /+/ʳ/ = /nau/

हिंदी उच्चारण: न+आउ = नाउ

7. CONCLUSION

Pronunciation errors are common among language learners, especially Hindi-speaking individuals learning English as a second language (L2). These difficulties often arise due to limited exposure and practice of English in their everyday environment. However, such pronunciation errors should not be dismissed lightly, as they can alter meanings, create entirely different words, or cause miscommunication. Mispronunciation can distort the intended message and hinder effective communication.

Therefore, it is highly beneficial to adopt the proposed pedagogical approach, which involves introducing phonetic sound symbols at an early stage of learning. This method, based on the Hindi reading technique, can significantly enhance the pronunciation of English words. By doing so, learners can better understand and articulate sounds that are otherwise challenging due to differences in phonological systems.

For instance, this approach helps explain anomalies in English pronunciation, such as why the letter 'R' is not pronounced in the word colonel. This case also supports the hypothesis presented in the title of the article published in Dainik Bhaskar on 17/07/25, which emphasizes the gap between English spelling and pronunciation and the need for phonetic guidance. By introducing phonetic sound symbols early, especially through methods familiar to Hindi readers, such inconsistencies can be better understood and effectively addressed.

Through phonetic analysis, we recognize that colonel is pronounced as under:

Phonetics Transcription : /k/+/ɜ:/+/n/+/ə/+/l/ = /kɜ:nəl/

हिंदी उच्चारण: **क+ न +र्++ल = कर्नल**

where the spelling and pronunciation diverge due to historical and etymological reasons. By using sound symbols and phonetic transcription, learners can internalize such irregularities and improve their spoken English with greater accuracy.

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