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RESEARCH PAPER

The Influence of Mother Tongue on English Pronunciation: A Case Study in District Rahim Yar Khan

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ABSTRACT

This research paper investigates the significant influence of mother tongue on English pronunciation among secondary level learners in District Rahim Yar Khan, where Punjabi and Saraiki languages are predominantly spoken as the native tongues. The study aims to explore the common pronunciation problems faced by these learners and identify the role of their mother tongue in shaping their English pronunciation. Additionally, the research seeks to propose effective remedial measures of proper learning to overcome these pronunciation challenges. To achieve these objectives, the researcher conducted sound recordings of secondary school students, focusing on a carefully selected word list of 100 words from the 9th and 10th-grade English textbooks. These recordings were analyzed using Phon software, enabling the identification of the most affected phones and phoneme. Ultimately, this study sheds light on the crucial issue of mother tongue interference in English pronunciation among secondary-level learners in District Rahim Yar Khan.

KEYWORDS Common Errors, English Pronunciation, English Textbooks, Mother Tongue, Variance in Pronunciation

Introduction

In contemporary society, human beings inherently possess social inclinations, necessitating effective communication methods to interact with others. Language serves as a fundamental instrument for facilitating communication, and within today's globalized world, English has emerged as a predominant language. As the world becomes increasingly interconnected, the adoption of a widely comprehensible and universally accepted language becomes imperative to ensure seamless communication and avoid confusion.

Mastering the pronunciation of a language is paramount to circumvent challenges in effective communication, particularly for individuals learning English as a foreign language. Brown (1994:284) elaborates on several contributing factors to the difficulties encountered in pronunciation, encompassing phonological disparities between the learner's native language (L1) and their second or foreign language (L2). Among the influential elements, the learner's mother tongue plays a significant role in shaping their pronunciation skills. (Brown 1994:284)

Numerous studies delve into the factors affecting the pronunciation of English as a second language (L2), categorizing them into inner and outer factors. Inner factors

encompass age, cognitive capabilities, aptitude, learner types, and goals, while outer factors include first language interference, motivation, teacher proficiency, teaching methodologies, classroom environment, and institutional variables. A comprehensive understanding of these factors is essential for both language teachers and learners to enhance the accuracy of second language pronunciation. (Brown 1994:284)

Acquiring correct pronunciation in a second language is indispensable for the language learning process, as it significantly enhances communicative competence and overall performance. By critically comprehending the aforementioned factors, teachers and learners can refine their strategies and approaches to pronunciation teaching and learning effectively. This qualitative and descriptive research highlights the significance of mastering second language pronunciation, providing valuable insights for language educators and learners (Khan, 2020).

Literature Review

"Language serves as the crucial key to the front door and all the rooms within, if culture were likened to a house."(Hosseini, 2013)

Language as a tool for Communication

Language serves as a fundamental tool for communication within a society. a shared language is one of the most crucial characteristics of a community, and the consistent use of that language serves as indisputable evidence of a community's historical continuity. The necessity to communicate acts as the catalyst for the emergence and evolution of language, and this need becomes increasingly pronounced in the presence of others with whom to communicate – in other words, within a society. From a linguistic standpoint, the study of language encompasses a multidisciplinary approach. Communication occurs not only through oral means but also through written forms. It is this multitude of facets involved in the examination of language that renders it an enduring phenomenon.(Holmes, 2016)

Mother Tongue and Second Language Acquisition

The term "mother tongue" originates from the belief that a child's linguistic abilities are shaped by their mother, making the language spoken by the mother the primary one that the child learns. This is particularly feasible when both parents belong to the same tribe. The mother tongue, also known as the native or first language, is the language acquired from birth or during a critical period when language acquisition is biologically tied to age. It forms the basis for one's social identity and serves as the medium of instruction in schools and society. According to Christine Senfuma, a wife and mother of one, the mother tongue refers to the language learned as a child at home, typically from the parents. She notes that children raised in bilingual households may have more than one mother tongue. Allen Kaziro, a secondary school teacher and mother of two, explains that the mother tongue can signify a language in which a person possesses the same proficiency as any other local individual who speaks that language. It is a language shared by the community, such as Luganda, for example(Yadav, 2014).

The Influence of mother tongue on English

According to(Brown 2007), individuals learning English as a second language (ESL) or foreign language (EFL) encounter difficulties, particularly in adulthood, due to the influence of their first language (L1) on their second language (L2). This influence, known as L1 transfer, becomes a significant source of errors for ESL or EFL learners. (Nunan and

Carter 2001) demonstrated that the native language has a noticeable impact on the acquisition of L2 pronunciation. When learners exhibit accents similar to their mother tongue, it hinders their English pronunciation. Phonology, which pertains to one's understanding of a language's sound system, is therefore concerned with a person's competence in this regard.(Brown, 2007)

The impact of the mother tongue on L2 pronunciation:

(Nunan and Carter 2001) further elucidate the impact of the mother tongue on L2 pronunciation. They found that the native language's phonological patterns and accent strongly affect learners' ability to achieve native-like pronunciation in English. When the accent of the L2 learner closely resembles their L1 accent, it often leads to interference and difficulties in mastering English pronunciation.(Nunan & Carter, 2001)

The impact of the mother tongue on the English pronunciation of Pothohari speakers:

Tabassum et al. (2020) explored the impact of the mother tongue on the English pronunciation of Pothohari speakers. The research focuses on analyzing the unique characteristics of English pronunciation among Pakistani Pothohari speakers, specifically examining selected vowels, diphthongs, and the /r/ sound. A set of nine phonemes, including diphthongs ɪə,ɑɪ,eɪ, əʊ, ɔɪ, vowels ɒ, ɜː, ae, and the /r/ phoneme, are specifically examined. The study incorporates the theoretical considerations of distinctive features theory. The research includes twenty native Pothohari speakers as participants, and data is collected through a list of eighteen sentences containing the target sounds. The utterances of the participants are recorded and analyzed to achieve the study's objectives. Both quantitative and qualitative approaches are employed to analyze the recorded data, with Received Pronunciation (RP) serving as a reference tool to identify differences. The findings of the study identify specific distinctive features in the English pronunciation of Pothohari speakers that are influenced by their mother tongue.(Fatima, Qasim et al. 2020)

The common sources of code-mixing in Saraiki speakers

Another study was conducted in Uch-sharif, with the aim of examining the common sources of code-mixing, specifically the use of English words, among Saraiki speakers in their interactions in the Saraiki language. Additionally, it explored the attitudes of Saraiki natives towards the frequent use of English words in their daily conversations. The research sample comprised 65 Saraiki teachers employed at government primary and elementary schools in Uch-sharif, who completed a 24-item questionnaire. The results revealed that 66.1% of Saraiki speakers in Uch-sharif had access to multiple sources that led to code-switching during their interactions in the Saraiki language. Moreover, 53.9% of respondents expressed a preference for using English words over Saraiki words in their daily routines. These findings indicate the influence of English on the pure Saraiki language in Uch-sharif. The study suggests that further investigation is necessary to gain a deeper understanding of the impact of English code-mixing among the Saraiki community in Uch-sharif. (Hussain et al. 2021)

The Influence of Punjabi on English Pronunciation:

The majority of people in Pakistan speak Punjabi as their mother tongue. English, being the language of media, science, and technology, has a significant influence on the native languages in Pakistan. Code-mixing is a common phenomenon, even among uneducated individuals who incorporate English words into their speech for various

reasons such as exposure to media or social class. The regional languages in Pakistan also contribute to the borrowing and code-mixing process, resulting in the phonetic makeup of borrowed English words being influenced by the phonetic features of the regional languages.(Riaz 2021)

How to overcome Pronunciation Errors

An automatic system for detection of pronunciation errors by adult learners of English is embedded in a language–learning package. Four main features are: (1) a recognizer robust to non–native speech; (2) localization of phone– and word–level errors; (3) diagnosis of what sorts of phone–level errors took place; and (4) a lexical–stress detector. These tools together allow robust, consistent, and specific feedback on pronunciation errors, unlike many previous systems that provide feedback at a more general level. The diagnosis technique searches for errors expected based on the student's mother tongue and uses a separate bias for each error in order to maintain a particular desired global false alarm rate. Results are presented here for non–native recognition on tasks of differing complexity and for diagnosis, based on a data set of artificial errors, showing that this method can detect many contrasts with a high hit rate and a low false alarm rate.(Herron, Menzel et al. 1999)

The Interactive Story Books

The Interactive Story Books (ISB) mobile application is specifically designed for children to enhance their speech, language, and literacy skills. It holds great potential for supporting education and learning among individuals with cognitive disabilities. These applications incorporate visual and auditory elements that demonstrate language and can serve as a valuable tool for children with various speech-language impairments. However, in the context of Malaysia, the development of ISB faces a lack of practical experience with children, particularly those with special needs related to speech and language impairments. This research focuses on Malaysian children with special needs and their parents, aiming to address this gap.The ISB application was developed using the Android platform and consists of three components: ISB itself, speech exercises, and animated songs. The application includes a media player that allows children to record and playback their voices, enabling them to practice pronunciation. Additionally, an embedded media player controls the playback of videos, allowing users to stop or play them. To evaluate the app, experts with experience in speech language therapy were surveyed, providing their insights on the content and usability of the ISB. Subsequently, surveys were conducted with parents and children who have special needs, gathering their evaluations of the app. These surveys primarily aimed to collect feedback on the prototype of ISB, focusing on its content and usability, including aspects such as pictures, music, colors, quizzes, usefulness, ease of use, ease of learning, and overall satisfaction. Some respondents also offered suggestions for app improvement.The main contribution of this study is the development of the ISB application for speech-language therapy, which allows parents of children with special needs to conduct therapy sessions at home without the assistance of Speech and Language Pathologists (SLPs). Moreover, the app was developed with the active involvement of experts, parents, and children with special needs, ensuring that it fulfills the requirements for speech-language therapy(Gang, Zainudin et al. 2017).

Computer-assisted pronunciation training (CAPT) for L2

Hacker (2009) focuses on the pattern recognition aspects of computer-assisted pronunciation training (CAPT) for second language learning. A survey of existing commercial systems reveals that pronunciation training is not extensively addressed in the

field of computer-assisted language learning, although there are already some advanced approaches for automatic assessment in the state-of-the-art section. This thesis extends and combines different approaches, specifically developing a comprehensive set of nearly 200 pronunciation and prosodic features. The goal is to treat pronunciation scoring as a classification task in a high-dimensional feature space. Most pronunciation scoring algorithms are built upon automatic speech recognition. In this thesis, a system is presented that supports second language learning in school, with a focus on children as the target users. To accommodate the speech patterns of young speakers, a state-of-the-art speech recognition engine is adapted to recognize children's speech, which can be challenging for automatic systems. The system integrates phonetically motivated rules for common mispronunciations, making it suitable for pronunciation scoring. Evaluating the effectiveness of a pronunciation assessment algorithm is more complex than simply counting correctly recognized errors, as there is no objective ground truth. This complexity is demonstrated through the evaluation of annotations provided by 14 teachers. However, by using different measures, it is verified that the accuracy of the system (compared to teachers) demonstrates a high level of agreement among the teachers. The evaluation is conducted with native German speakers learning English.(Hacker 2009)

Generalized Transformation-based Error-driven Learning

(Bang, Lee et al. 2014) introduce a novel approach to modeling and predicting inonnative pronunciation variants. The method for predicting pronunciation variants was developed using a generalized transformation-based error-driven learning (GTBL) technique. To effectively detect mispronunciations, a modified goodness of pronunciation (GOP) score was utilized, combined with logistic regression machine learning. The study focused on English-read speech data spoken by Korean learners of English. Pronunciation variation knowledge was extracted by comparing the canonical phonemes with the actual phonemes present in the speech data. Based on this knowledge, an error-driven learning approach was devised to automatically learn phoneme variation rules from phoneme-level transcriptions. These learned rules were then used to generate an extended recognition network for detecting mispronunciations. Three different methods for mispronunciation detection were tested, including our logistic regression machine learning method with modified GOP scores and mispronunciation preference features. All three methods demonstrated significant improvements in predicting pronunciation variants, with the logistic regression approach showing the best performance.(Bang, Lee et al. 2014)

Material and Methods

The researchers have used quantitative method to conduct this study. Priority is given to quantitative method keeping in view the nature of the study.

Population

Undergraduates majoring in English from Rahim Yar Khan's educational institutions—Islamia University and KFUEIT Rahim Yar Khan

Sample Size

One hundred 9th and 10th grade students belonging to Punjabi and Saraiki families are the sample of this research.

Tool Construction

A list of 100 English words were randomly given to the students with the instructions to pronounce it in natural way. Their sounds are recorded to identify the pronunciation issues.

Data Collecting Technique

Simple data collection technique of recording interview/Pronunciation has been used in this research.

Data Analysis Techniques

SPSS is used to analyze the data by applying simple frequency test.

Ethical Considerations

All the considerations are observed faithfully to conduct this research.

The research project has used a quantitative approach to gain a deeper understanding of the impact of mother tongue on the pronunciation of English vocabulary among Saraiki and Punjabi speaking students. The use of recorded interviews, classroom observations, and questionnaires, along with the analysis of the data using the IPA and Oxford Advanced Learner's Dictionary, has enables the researcher to identify the specific areas where students face difficulties. Ultimately, the results of the research have been presented quantitatively, with percentages, charts, and diagrams to make the findings more accessible to educators and the wider research community.

Data Collection

Two instruments were used as tools for research.

The researcher created a questionnaire that included both qualitative and quantitative research elements. The questionnaire has been included in the appendix. The main aim of the questionnaire was to gather feedback from teachers regarding the impact of mother tongue on English pronunciation, as well as to gather their perspectives on potential solutions to the problem.

The second method involved the collection of audio recordings to capture pronunciation samples from secondary-level students across various schools in Tehsil Sadiqabad. These recordings were obtained as part of the research process. The purpose was to analyze the students' pronunciation abilities and gain insights into any common challenges or patterns in their speech. By gathering a wide range of samples from different schools within the Tehsil, the study aimed to provide a comprehensive understanding of the pronunciation trends and variations among secondary-level students in the area.After the data was collected using the My Recorder Pro Mobile app, it was transferred to the Phon software for analysis.(2020) Phon is a software program that is commonly used in linguistics research for the analysis of speech sounds. It provides a detailed analysis of the different phonetic components of speech, allowing researchers to identify patterns and trends in pronunciation. The use of this software allowed the researcher to analyze the data in a more objective and systematic manner, enhancing the credibility and reliability of the study's findings.

Results and Discussion

The analysis of Questionnaire

To gather valuable insights on the impact of Punjabi and Saraiki languages on English pronunciation, an extensively crafted Google Form consisting of 13 closed-ended and 13 open-ended questions was distributed among English teachers from both public and private sectors. The purpose was to solicit their expert opinions and perspectives on the subject matter. Although a total of 50 responses were received, it is worth noting that only 48 of them provided complete feedback, as two respondents solely answered the closed-ended questions, leaving the open-ended portion incomplete.These responses proved valuable to find out the answers to the research questions.

The survey participants' responses to the questionnaire have been meticulously summarized and organized in the tables presented below. It is important to highlight that while some of these tables accommodate a maximum of 55 responses, other tables may have a different capacity depending on the nature of the question and the data collected. This systematic arrangement of data allows for a comprehensive analysis and provides valuable insights into the participants' perspectives and opinions. A majority of the teachers, when asked to share their views, agreed that the mother tongue plays a significant role in influencing the pronunciation of the English language. The researcher conducted a study to explore the factors impacting pronunciation were pointed out as: The Difference of sound systems,Tone,Consonant Clusters,Word Stress,Orthography, Lack of Knowledge.

Analysis of Sounds

Phon software(2020) is a powerful tool for analyzing phonetic data. It is designed to perform phonetic analysis on speech sounds and provides detailed visualizations of the data in the form of spectrograms, waveforms, and other graphs. In the context of this study, the software was used to analyze the audio recordings of students' pronunciation of English words.

The analysis involved comparing the pronunciation of the words between the two groups of students from Saraiki and Punjabi backgrounds. The software was used to identify any differences in the way the two groups pronounced the words. The identified differences were quantified and compared using statistical analysis to determine if there were any significant differences between the two groups.

Additionally, the software allowed for the identification of patterns and trends in the data. This was achieved by analyzing the data in different ways and looking for recurring patterns in the pronunciation of certain words or sounds. The software also allowed the researcher to isolate specific features of the pronunciation, such as stress, intonation, and vowel length, which could be analyzed in more detail.

The data obtained from the Phon software was used to draw conclusions about the influence of Saraiki and Punjabi mother tongues on English pronunciation. The analysis provided insights into the specific areas of pronunciation that were influenced by the students' mother tongues and allowed the researcher to identify potential solutions to address these issues.

The Phon software's built-in analysis, known as PPC (Percent phons correct), played a pivotal role in evaluating the accuracy of the students' pronunciation. The results of this analysis highlighted specific sounds that posed considerable challenges to the students. Among the consonant sounds, the aforementioned 'w,' 'v,' 'ð,' and 'ʒ' stood out as particularly formidable obstacles. Similarly, within the realm of vowels, the sounds 'æ,' 'ʌ,'

'ɔ,' and the elusive 'schwa' (ə), accompanied by certain diphthongs like 'ɔ͡ɪ,' emerged as prominent stumbling blocks in the students' journey towards improved pronunciation.

Yet, the researcher's quest for knowledge did not end there. Recognizing the need for a more granular analysis, he ventured into the realm of specific phonemes and consonant clusters. Employing the sophisticated AutoPatt (Automated Phonological Analysis and Treatment Target) analysis, a cutting-edge feature of the Phon software proposed by Combiths, Amberg et al. in 2022, the researchers aimed to identify areas that demanded focused attention and targeted intervention.

The AutoPatt analysis yielded critical insights, shining a light on specific phonemes and consonant clusters that warranted vigilant monitoring and intervention. Notably, the phoneme [ʒ] emerged as a particularly significant sound, with its correct pronunciation holding a key role in overall pronunciation accuracy. Consequently, addressing this specific phoneme was deemed essential in enhancing the students' pronunciation proficiency.

Furthermore, the AutoPatt analysis revealed several consonant clusters that required careful scrutiny and intervention to overcome pronunciation hurdles effectively. These clusters included intriguing combinations such as [tw, pj, ɡɹ, ɡl, ʃɹ, mj, sn, skw, spɹ, stɹ]. By delving into these specific aspects, the research team gleaned a comprehensive understanding of the precise areas that demanded targeted support.

Armed with the comprehensive insights obtained through the Phon software, encompassing both PPC and AutoPatt analyses, educators were equipped with a powerful arsenal to tailor their teaching strategies. By designing targeted exercises and offering individualized support, instructors could effectively address the students' pronunciation challenges. This strategic approach ultimately aimed to elevate the students' communication skills, fostering enhanced language proficiency and improved overall comprehension at the secondary level. Through the implementation of these evidence-based interventions, the students could confidently navigate the complexities of English pronunciation, empowering them to express themselves with clarity and confidence in diverse linguistic settings.

Conclusion

The common pronunciation challenges among students, educators identified consistent mispronunciations of specific sounds. Consonants 'w,' 'v,' 'ð,' and 'ʒ' were frequently mispronounced, as were vowels 'æ,' 'ʌ,' 'ɔ,' and the sound 'schwa' (ə). These recordings were analysed using the Phon software, particularly the Percent phones correct (PPC) analysis, which pinpointed challenging sounds. 'w,' 'v,' 'ð,' 'ʒ' were notable consonant issues, while 'æ,' 'ʌ,' 'ɔ,' 'schwa' (ə), and diphthongs like 'ɔ͡ɪ' were problematic vowels

The Influence of mother tongue on English Pronunciation:

A majority of the teachers, when asked to share their views, agreed that the mother tongue plays a significant role in influencing the pronunciation of the English language. The researcher conducted a study to explore the factors impacting pronunciation, which are given below:

The Difference of sound systems, Tone, Consonant Clusters, Word Stress

Orthography and Lack of Knowledge.

Measure to overcome the Influence:

The following steps should be followed to overcome this influence

Immerse Yourself in English, Phonetic Exercises, Listen and Imitate, Use Pronunciation Guides, Minimal Pairs, Speak Slowly and Clearly, Utilizing Modern instruments and enabling the students to differentiate between orthography and pronunciation.

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