

Effectiveness of Phonetics Training for Indian Students: Pedagogical, Technological, and Intelligibility Perspectives

¹Martina Dealon Henriques, ²Pyarelal Singh

¹Department: Education College: University of Mumbai, Ashadeep Adhyaapak Mahavidyalaya, Nallasopara, Maharashtra, India

²Designation: Assistant Professor College: University of Mumbai, Ashadeep Adhyaapak Mahavidyalaya, Nallasopara, Maharashtra, India

Abstract - The success of phonetics and pronunciation training has since been rekindled in English language teaching, especially where more than one language is used as a common phenomenon as observed in India, where English is a second language and an important means of academic and professional mobility. However, though a large number of learners in India speak English, there are various difficulties connected to the segmental accuracy, stress, rhythm, and intelligibility because of the influence of the first language, lack of a pronunciation emphasis in the classroom, and examination-oriented teaching. This paper reviews the performance of phonetics training in Indian students through combining both empirical and theoretical studies with technology. A narrative review methodology was adopted that analyzed forty peer-reviewed studies and authoritative sources and found the instructional approaches, learning outcomes, and contextual constraints. The result of the findings is that explicit phonetics instruction (particularly mixed with communicative practice and computer-aided pronunciation training) has a significant positive effect on intelligibility, learner confidence, and speech comprehensibility. Nevertheless, there are still constant gaps in the training of teachers, the integration of the curriculum and equal access to pronunciation technology. The paper concludes that phonetics training is not only pedagogically competent but also socially requisite in Indian context, as long as it is oriented towards intelligibility with the help of technology and placed in the communicative language teaching structures.

Keywords - phonetics training, pronunciation instruction, Indian English, intelligibility, CAPT, ESL.

I. INTRODUCTION

The role of English in India is a peculiar sociolinguistic phenomenon, being a second language, an intermediary language and a source of the educational and professional capital of Indians. Due to its wide-spread institutional and interpersonal application, the Indian English is now recognized as a valid and systematic form of World Englishes (Pandey, 2015; Sailaja, 2013). However, intelligibility remains a sensitive issue among the Indian learners especially in situations where they have to interact both regionally, nationally and

internationally. Although accent variation is an acknowledged aspect of Indian English, chronic pronunciation problems may have adverse effects on the understanding power, perception of listeners, and communication (Munro and Derwing, 2011).

Studies have always explained pronunciation challenges among the Indian learners as a result of mother tongue factors, lack of exposure to spoken English and lack of instructional emphasis on phonetics and oral skills (Bansal, 1976; Maskara, 2013). Phonological borrowings of Indian languages tend to bring segmental replacements, foreign stress systems, and syllable-timed rhythms meaning that they could make them less intelligible to new

listeners (Pandey, 2015). These difficulties are made worse because of the facts surrounding education where spoken English is hardly modeled on the authentic way, especially in rural and semi urban schools.

In India, the teaching of the English language has been more concentrated on grammar, reading and writing skills and less emphasis has been given to listening and speaking. Likewise, when taught, pronunciation is often restricted to explanations (theoretical of phonetic symbols) or exercises (number of isolated sounds), as opposed to systematic practice in speech perception, speaking and use (Sailaja, 2013). The result of this is that most learners will end up committing fossilization pronunciation errors, which will span into their college education and career to negatively impact confidence and oral expression (Levis, 2005).

However, in contrast to the views of the previous researchers based on the critical period hypothesis, the current studies of learning second language and applied linguistics have proved that it is possible to teach pronunciation even after the period of childhood. Empirical research and meta-analysis give good reasons to believe that explicit instruction in phonetics results in massive differences in the intelligibility and comprehension, even in the adult learners (Saito, 2012; Thomson and Derwing, 2015). Notably, these advantages do not involve the removal of accent, but instead aim at grasping greater listener comprehension and speaker articulation (Derwing et al., 1998).

In the case of Indian learners, whose major aim is usually functional intelligibility, but not native-like speech, phonetics training will have specific pedagogical significance. Blended instruction methods that focus on articulatory explanation, perceptual training, suprasegmental, and communicative practice demonstrated consistency in the positive results (Munro and Derwing, 2011). Besides, technology-based pronunciation training (as well as computer assist pronunciation training, CAPT), or automatic speech recognition models provide potential answers to the issues of high learner numbers and teacher low level of knowledge

in the Indian classroom setting (Amrate & Tsai, 2024; Rogerson-Revell, 2021).

It is on this basis that the current research investigates the efficiency of phonetics training among Indian students through reviewing some of the prominent studies examining Indian English pronunciation, pedagogy of pronunciation around the world, and the use of technology in phonetics training. In particular, the research questions that the study is aimed at answering include the following: (1) How effective is phonetics training in enhancing intelligibility among Indian learners of English? (2) What methods and devices are the most reliable in learning? and (3) What situational and institutional issues do not allow phonetics instruction in the Indian classrooms?

II. LITERATURE REVIEW

Indian English and Pronunciation Features

The Indian English language is influenced by the phonological structures of the many Indo-Aryan and Dravidian language varieties that are found on the sub continues. Consequently, it bears characteristics of segmentalism and suprasegmental peculiarities distinguishing it among other forms of English and being systematic and internally consistent. Typically, such features as retroflex stops use, the replacement of the dental plosives with the alveolar consonants, the decreasing of the vowel contrast, the syllable-timed rhythm, and inconsistent stress delivery are typical (Pandey, 2015; Sailaja, 2013). Such characteristics indicate the tendencies of transfer to the first language instead of language impairment.

Soon empirical research by Bansal (1976) proved that Indian English is usually understandable to the Indian, as well as the non-Indian speakers, especially when used within common communicative situations. Nevertheless, Bansal also found that some segmental deviations like the vowel length contrasts and consonant replacements may hamper reading in international communication where listeners are not used to the Indian patterns of phonologies. Such difference between the notions of intelligibility in local contexts, and intelligibility in the contexts that

are global, still remains central to the modern day pronunciation pedagogy.

Pandey (2015) and Sailaja (2013) are the scholars that strongly state that the Indian English pronunciation should be understood descriptively as opposed to prescriptively. In this light perspective, the Indian English is regarded as an institutionalized variety and not an interlanguage of the learner. Nevertheless, the two authors admit that intelligibility-based teaching is necessary especially in case a learner has to either work in academic, professional, or international sphere. Accordingly, although the variation of accent should be tolerated, it does not mean that the pedagogical importance of the phonetic elements that influence the understanding of the speakers should not be taught.

Figure 1. Phonological Influences on Indian English Pronunciation



Table 1. Common Pronunciation Challenges among Indian ESL Learners

Pronunciation Feature	Common Issue	L1 Influence
Consonants	Dental–alveolar substitution	Indo-Aryan
Vowels	Length neutralization	Dravidian
Rhythm	Syllable-timed speech	Most Indian languages

Stress	Weak stress contrast	Cross-linguistic
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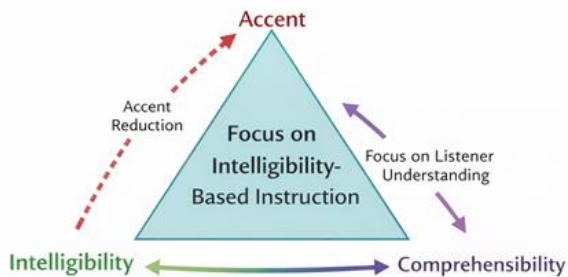
The Intelligibility and Comprehensibility

Research in the area of pronunciation has continually placed a stronger focus on the conceptualization of the difference between accent, intelligibility, and comprehensibility. Phonological variation around a reference norm is known as accent, whether speech is actually comprehended is known as intelligibility and whether the speech is perceived to be easily understood is known as comprehensibility (Munro and Derwing, 2011). Notably, not all of these constructs correlate thus speech with a strong accent may be still intelligible, whilst speech with a mild accent may be still difficult to understand.

Munro and Derwing (2011) contend that acronym speech is not necessarily incomprehensible and that the methods that instructors employ in order to eradicate accent should not be prioritized. Rather, they promote the instructional objectives around enhancing the knowledge of listeners and lessening the communication failures. This stance is especially applicable to the Indian situation, in which the diversity in accent is not only prevalent, but also acceptable in society.

The empirical research always proves the positive effect of instructing pronunciation which raises the level of intelligibility and comprehensibility despite the fact that learners keep preserving L1-influenced accent (Derwing et al., 1998). Stress and rhythm as well as prosody thank-you-teach care can teach to listeners more than segmental instruction. These results provide an intelligibility-based pedagogical approach to be successful in the context of the communicative needs of Indian learners, the main aspiration of which is efficient communication but not pronunciation style typical of a native speaker.

Figure 2. Distinction Between Accent, Intelligibility, and Comprehensibility



Effectiveness of Pronunciation Instruction

The efficacy of teaching pronunciation during second language acquisition is established by a large amount of available empirical evidence. With the recent findings that deal with pronunciation being just as trainable as previously believed that it becomes difficult to instruct children after a certain stage, it is demonstrated that segmental and suprasegmental aspects of pronunciation can be trained through specialized instruction (Levis, 2005). The evidence given by meta-analytical studies is especially overwhelming.

In a synthesis of fifteen quasi-experimental studies, Saito (2012) concluded that explicit pronunciation instruction brought about a significant improvement in phonetic accuracy and speech understanding of the learner. Effectiveness of instructional strategies that combine perception training and instructed production practice was also described in the study. These results infer that learning how to produce sounds is not the only benefit of the learning process, as learning how to perceive the phonetic differences is possible as well.

The study by Thomson and Derwing (2015) also presented more consistent evidence to show that pronunciation training can bring about greater improvements in comprehensibility compared to accent reduction. Their narrative review provides insights on the significance of realistic teaching objectives, especially when it comes to teaching in ESL classrooms, like in India. Instead of trying to do away with accent, the features constituting the most significant effect on the understanding of the listeners should be taught.

Among the Indian learners, this fact is particularly important due to the generation of fossilized pronunciation errors because of the lack of

classroom exposure to the spoken English. The explicit teaching of phonetics when incorporated in communicative language teaching has been revealed to enhance confidence, fluency and general oral delivery (Munro and Derwing, 2011).

Technology-Assisted Phonetics Training

Computer-assisted pronunciation training (CAPT) has also been identified as a potential instrument of pedagogical assistance in recent years, especially within an educational environment that is confronted with large numbers combined with a low level of teacher competence. CAPT systems normally use automatic speech recognition (ASR) to display learners with instant and personalized responses on the accuracy of pronunciation thus promoting self directed practice (Rogerson-Revell, 2021).

The systematic reviews reveal that CAPT is useful in improving the learner motivation, accuracy in pronunciation, and autonomy when applied together with the classroom training (Amrate and Tsai, 2024). Technology is not used to substitute the teachers; instead, it is the complement of that tool which allows repeating the practice and providing individual feedback, which in traditional classes may be very challenging to do.

Localized pronouncing training system possibilities are further developed by Indian-related technological programs. A phonetic corpus specially created to cater to the needs of Indian learners of English is voisTUTOR corpus created by Pal et al. (2022). This is because such resources overcome the weaknesses of the generic ASR systems that tend to be calibrated to the native speaker perception and do not support such phonemes that are prevalent in Indian English.

Though there are these developments, there are still problems in the infrastructure, digital literacy, and equal opportunity. However, technology-based phonetics training forms a viable avenue of scaling pronunciation training in a wide variety of Indian educational environments especially in correspondence with intelligibility-based pedagogical codes.

III. METHODOLOGY

Research Design

The current research has taken the form of a narrative literature review in order to consider the efficacy of training phonetics among Indian English learners. The synthesis of the findings on various empirical, theoretical, and methodological traditions is the purpose that especially suits the one to a narrative review as opposed to estimating the effect sizes and adding them in a more statistical manner (Green et al., 2006). Since most studies in the field of pronunciation lay within the field of applied linguistics, phonetics, pedagogy, and educational technology, the narrative approach permits critical interpretation and integration of evidence on a theme basis.

The main area of the review is the Indian ESL situations, where English is the second language in a multilingual school setting. Nonetheless, some background investigations of pronunciation teaching are also provided to put Indian results into context in relation to the general trends of the second language acquisition and pronunciation instruction (Levis, 2005; Thomson and Derwing, 2015). Such dual focus will allow the research to find the context-specific difficulties and principles of instruction which could be transferred.

As opposed to systematized reviews/meta-analyses that focus on rigid protocols of inclusion and quantitative synthesis, it is clear that the narrative review used in this paper focuses more on conceptual comprehensibility, didactical implications, and a contextualized understanding. It is also a perfect method to answer research questions pertaining to the problem of instructional effectiveness, models of pedagogy, and difficulties with implementation related to actual classroom settings (Snyder, 2019).

Data Sources and Selection criteria.

The review is based on the forty well-chosen sources such as the peer-reviewed journal articles and scholarly books, as well as the conference

proceedings. The sources were located by making specific searches in such academic databases like Google Scholar, ERIC, Scopus, and publisher sites like Cambridge University Press, Wiley, and John Benjamins. Further sources were identified by use of citation chaining in order to embrace powerful and commonly referred publications in pronunciation studies.

There were four major criteria that were used to select. First, they had to be peer-reviewed or even published by well-known academic publishers, which guaranteed academic rigour and reliability. Second, researches had to show direct applicability to the pronunciation or phonetics training inclusive of instructional intervention, pedagogical model, or pronunciation training results. Third, special emphasis was placed on studies that involve Indian students learning the English language, but global research that is of high quality and can be used in ESL classrooms was also incorporated to aid in comparative analysis (Munro and Derwing, 2011; Saito, 2012). Lastly, the sources that had the complete texts and valid weblinks were only included to achieve transparency and replication.

The chosen literature is a compromise between the classical foundational studies and the latest empirical ones including technology-mediated pronunciation training. This is what makes the review track the changes in the pronunciation pedagogy during this period: the prescriptive models of pronunciation were substituted with an accent-oriented model and finally with the model based on intelligibility (Derwing et al., 1998; Amrate and Tsai, 2024).

Analytical Framework

The chosen literature was analyzed according to a four-dimensional model developed based on the reviews of previous research on pronunciation (Levis, 2005; Thomson and Derwing, 2015). The first dimension was the method of instruction, where the studies were divided into explicit instruction on phonetics, communicative teaching on pronunciation, and technology-assisted or computer-assisted pronunciation teaching (CAPT). This classification also allowed making comparisons

between the pedagogical effectiveness of the modes of instruction.

The second dimension was concerned with target dimensions, that is, between segmental (e.g., consonants and vowels) and suprasegmental (e.g., stress, rhythm, and intonation) instructions. Past studies propose suprasegmental properties tend to have more effect on intelligibility and, therefore, this distinction is of pedagogical importance (Munro and Derwing, 2011).

The third dimension was the learning outcomes, such as improvements in intelligibility, phonetic accuracy and confidence of the learner.

These outcome variables are indicators of modern findings in resonance of pronunciation research which is functional communication instead of making the accent native-like (Saito, 2012).

Lastly, the fourth dimension covered contextual constraints, which included the preparation of the teacher, the curriculum design, the size of classes, and the access to technological resources.

The specified factors are especially also relevant to the Indian educational setting and are vital in defining whether the phonetics teaching is viable and sustainable (Maskara, 2013; Rogerson-Revell, 2021).

Combining these four dimensions, the analytical system allows an assessment of the effectiveness of phonetics training in a subtle way due to the consideration of pedagogical, linguistic and institutional factors.

Figure 3. Instructional Pathways in Phonetics Training

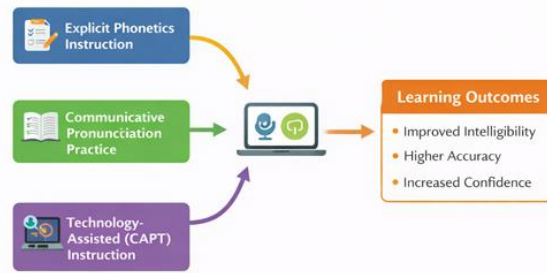
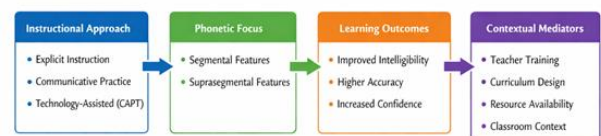


Table 2. Summary of Instructional Approaches Reviewed

Approach	Key Features	Reported Effect
Explicit phonetics	Articulatory explanation	Accuracy gains
Communicative practice	Task-based speaking	Transfer to real use
CAPT	ASR-based feedback	Autonomy & motivation

Figure 4. Analytical Framework for Evaluating Phonetics Training Effectiveness



Results

Impact on Segmental Accuracy

All the reviewed studies show that explicit teaching in phonetics significantly enhances segmental accuracy especially consonant and vowel production after the training. Indian students show significant improvements in the ability to articulate phonemic contrast that are most often problematic when there is the influence of the first language namely the length of vowel, dental-alveolar contrasts, and clusters of sounds (Bansal, 1976; Pandey, 2015). The articulatory that is combined with guided production practice seems to be particularly effective in terms of mitigating these challenges.

There is empirical evidence to indicate that perception training is important in enhancing segmental accuracy. Students who undergo systematic access of auditory discrimination exercises and explicit phonetic teaching demonstrate an increased enhancement in comparison to students who undergo production training only (Saito, 2012). This observation is in line with studies that have shown that correct perception of phonetic contrasts is a pre-requisite to effective production. Perception-based training is beneficial among Indian schools of students whose native languages tend to have few phonemic differentiation between the English language, which will inhibit those errors and fossilization.

Also, it is said that explicit phonetics training develops the metalinguistic awareness of the learners and are better placed to observe and self-correct their pronunciation mistakes (Levis, 2005). Such improvements are especially noticeable in controlled speaking assignments, whereas a number of research papers were used to transfer them to the context of unstructured speech, indicating that no isolated drills had a unique effect (Thomson and Derwing, 2015).

Suprasegmental Gains and Intelligibility

Although segmental teaching has its quantifiable advantages, research shows that suprasegmental instructions (stress, rhythm and intonation) result in higher and more reliable intelligibility and comprehensibility gains. There are also studies that have concentrated on the prosodic feature and statistic gains of enhanced listener comprehension and perceived fluency, despite imperfect segmental accuracy (Derwing et al., 1998; Munro and Derwing, 2011).

The learners that are particularly able to enjoy the instruction that focuses on the word stress and sentence-level prosody include the Indian learners, all of whom tend to have the syllable-timed rhythm and stress-location variation in their speech (Sailaja, 2013). Suprasegmental training assists the learners in equipping more natural rhythm speech, which enables listeners to ease the information processing process. Such assessments on listeners always show

a greater number of intelligibility scores among learners who are taught the accent-based instruction than among those who are taught only on segmental characteristics (Thomson and Derwing, 2015).

These results are good arguments when it comes to intelligibility-based pedagogy, which believes in communicative effectiveness rather than lowering the accent. When the goals of the instruction focus on understandability instead of native-like pronunciation, listeners become more convinced in oral communication and willing to engage in oral communication (Munro and Derwing, 2011).

Table 3. Comparison of Segmental vs. Suprasegmental Instruction Outcomes

Instruction Type	Primary Outcome	Effect on Intelligibility
Segmental	Sound accuracy	Moderate
Suprasegmental	Rhythm & stress	High

Role of Technology

Pronunciation training enhanced by technology is relevant in improving the learning outcome levels both in segmental and suprasegmental segments. CAPT tools with automatic speech recognition include all these features and offer immediate feedback that is provided individually, allowing learners to take part in the repeated practice with no fear of negative evaluation (Rogerson-Revell, 2021). This is especially useful in the Indian classroom where teachers may not have time to give individual feedback to teaching students compelled to have large classes because of limited classroom space.

Research finds that in the case of the Indian learners CAPT systems, there is a better pronunciation accuracy, learner autonomy and learner motivation (Amrate & Tsai, 2024). The effectiveness of the localized technological sources, e.g., voisTUTOR corpus, can be further increased by considering the Indian English phonological patterns, which will

contribute to more accurate feedback and relevance of learners (Pal et al., 2022).

Notably, one of the most common responses of learners who use pronunciation software is that such software has enabled them to experience greater confidence and self-efficacy, which implies it is not only linguistic training that facilitates favorable affective response, but also technology. Combined with the classroom instruction, CAPT tools would serve as effective tools to complement teacher activities, but not to substitute it, supporting the effectiveness of phonetics training, in general, in the context of Indian ESL lessons.

Figure 5. Impact of Phonetics Training on Learning Outcomes

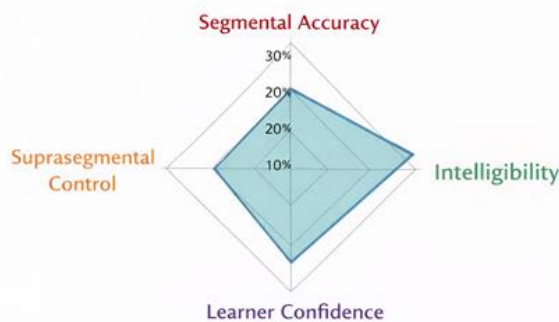


Table 4. Summary of Key Findings on Phonetics Training Effectiveness

Dimension	Evidence from Studies	Outcome
Segmental training	Explicit instruction	Accuracy improvement
Suprasegmentals	Stress & rhythm focus	Higher intelligibility
Technology use	CAPT, ASR tools	Motivation & autonomy

IV. DISCUSSION

The results of the current research indicate the usefulness of the phonetics training on Indian students strongly when the instructional objectives

are not pegged on the pronunciation of the native elements but on the intelligibility. In line with the current study of the pronunciation, the studies reviewed prove that explicit phonetics training can effectively correct fossilized errors in pronunciation, including those in adult learners (Saito, 2012; Thomson and Derwing, 2015). In the case of Indian learners, whose speech system has frequently been influenced by the phonology of the mother tongue, the latter promotes both phonetic precision and comprehension of a listener even without having to wipe out an accent.

Special teaching on phonetics is particularly important in raising the consciousness of the learners about articulatory processes and phonemic differences lacking in most of the Indian languages. Using articulatory explanation with training of perception, learners gain more control over the problematic sounds, as well as, show better self-monitoring skills (Levis, 2005). Yet, as it is highlighted in the literature, phonetics teaching cannot do without being decontextualized. To successfully transfer the enhanced pronunciation performed in the controlled activities to the spontaneous speech so as to strengthen the functional communicative competence, communicative practice is necessary (Derwing et al., 1998).

The results also reveal the pedagogical importance of paying attention to the suprasegmental features, including stress, rhythm, and intonation. Studies have continuously revealed that instruction that focuses on prosodic aspects makes more gains in evidence of intelligibility and understanding compared to instruction focused on the segments (Munro and Derwing, 2011). The given observation is especially topical in the context of India where the usage of syllable-timed rhythm and shifting patterns of stress can influence the comprehension of the listener. The global best practices and the ability to effectively address the communicative requirements of Indian learners involve applying an intelligibility-oriented approach that puts emphasis on prosody (Thomson and Derwing, 2015).

Technology turns out to be a significant facilitating element towards successful execution of phonetics

training. Computer-aided pronunciation training (CAPT) technology has been used as it allows instructors to give learners a form of immediate and individualized feedback and provides learners with repeated practice opportunities, which are restricted by large classes and limited teaching time (Rogerson-Revell, 2021). According to systematic reviews, technology-supported pronunciation teaching helps to increase the motivation of all learners, their autonomy, and pronunciation accuracy in case of curriculum-incorporated classical classroom instruction (Amrate and Tsai, 2024). Localized pronunciation corpora and ASR-based applications are the other examples of Indian-oriented technological programs, which additionally show that technology can promote context-sensitive learning (Pal et al., 2022).

In spite of these encouraging results, phonetics training still has numerous systemic issues that limit its implementation in India. The English language teachers do not have phonetics and pronouncing pedagogy training, which constrains their opportunity to design and implemented effective instruction (Maskara, 2013). Besides that, there is still the marginalization of pronunciation in most of the curriculums whereby emphasis is put on exam based skills, as opposed to oral communication. The disproportional distribution of access to digital infrastructure contributes to the inequality in education access by urban and rural educational facilities.

Indian background thus reveals the necessity of having a balanced pedagogical model that would entail combining linguistic theory, communicative practice, and technological assistance. Just like this model honors the validity of Indian English as an acceptable variety, it also deals with issues of intelligibility in international communication. It is imperative to align the teacher education, curriculum development and technological resources with intelligibility-oriented pronunciation training so that the merits of phonetics training can be long term and very broad.

V. CONCLUSION

The current research proves that the training of phonetics can be helpful and necessary among Indian students studying English, especially in the multilingual and functionally diverse institutions of education. Based on the evidence results of empirical, theoretical as well as Technology mediated research, the review validates that systematic pronunciation teaching is found to result in quantifiable gains of intelligibility, comprehensibility and confidence to the learner. The following effects can be witnessed on instructional levels, such as explicit teaching of phonetics in the classroom, communicative pronunciation instruction, and computer-assisted pronunciation training (CAPT), which attests to the pedagogical importance of the pronunciation-oriented intervention (Saito, 2012; Thomson and Derwing, 2015).

One important conclusion about the research is that the most reasonable and effective gains are most persistently obtained when communicative practice is united with explicit phonetics instruction. Direct teaching makes the learners more conscious of the articulatory processes and phonological distinctions, and this helps them to deal with their fossilized pronunciation errors that would otherwise prevail among Indian learners (Levis, 2005). Nevertheless, communicative practice is critical in the transfer of these advantages to the spontaneous speech, so that the better pronunciation can apply to the actual communicative efficiency, as opposed to staying within the controlled practice (Derwing et al., 1998). The combination of such an approach and the modern intelligibility-based pronunciation instruction, where the focus is put on the understanding of the listener, rather than the native-like accent acquisition, is corroborated (Munro and Derwing, 2011).

The phonetics training outcomes have a major enabling factor of technology. Once tools CAPT and ASR-based pronunciation software offer learners personalized feedback, a chance to undertake repetition training, and learners control mastery, which is particularly helpful in the context of Indian classes with large enrollments and short new instructions (Rogerson-Revell, 2021). There is

empirical evidence indicating that pronunciation training facilitated by technologies yields an increase in motivation and confidence along with encouraging the achievement of quantifiable improvement in the phonetic accuracy and intelligibility when used together with teacher-But adult training (Amrate and Tsai, 2024; Pal et al., 2022).

Although these are the positive results, the study also notes that there are still deep-rooted systemic issues that prevent the mass adoption of effective phonetics training in India. They are poor teacher preparation in phonetics and pronunciation pedagogy, marginalization of pronunciation in the curriculum, and inequalities in the access to digital infrastructure between regions and institutions (Maskara, 2013). The gains of phonetics training might be local, irregular, and brief without continuity of the establishment of structural support.

To achieve the best results, policymakers and teachers should consider three main areas, which are: (1) enhancing teacher education to encompass applied phonetics and pronunciation pedagogy; (2) revising the curricula to incorporate pronunciation as a part and parcel of communicative competence; and (3) providing equal access to pronunciation technologies in all learning environments. These reforms would help it accord Indian English language instruction to international best practices without the disqualification of the legitimacy of Indian English as a variety (Pandey, 2015; Sailaja, 2013).

The longitudinal, classroom-based, and mixed-method designs should be used in the future to investigate the long-term impact of phonetics training in various age groups with different levels of proficiency and various regional settings. The study of the interplay between instructional strategies, student attitude, and mediating technological influences will also enhance evidence based pronunciation instruction. Finally, enhancing phonetics is not only a pedagogical improvement but also a move towards the linguistic equity, communicative empowerment, and competent presence in the globalized world.

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