

Research Article

Repensar el Shadowing para la Pronunciación Inteligible en la Educación Docente EFL Latinoamericana: Revisión Crítica y Marco Conceptual

Rethinking Shadowing for Intelligible Pronunciation in Latin American EFL Teacher Education: Critical Review, Conceptual Framework



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Resumen: El shadowing se ha consolidado como una técnica relevante para fortalecer la pronunciación en la enseñanza del inglés como lengua extranjera; sin embargo, su estudio presenta vacíos en contextos latinoamericanos de formación docente y una orientación excesiva hacia la precisión o semejanza nativa, en lugar de la inteligibilidad comunicativa. El objetivo de este artículo fue replantear críticamente el uso del shadowing en la educación docente EFL hispanohablante, proponiendo un marco conceptual orientado a la pronunciación inteligible. Metodológicamente, se desarrolló una revisión crítica y narrativa de literatura teórica, empírica y pedagógica sobre shadowing, inteligibilidad, transferencia lingüística y formación docente. Los resultados permitieron identificar cuatro variantes principales de la técnica estándar, prosódica, selectiva y mediada por tecnología, así como mecanismos cognitivos vinculados al bucle fonológico, el procesamiento ascendente, la automatización y la práctica deliberada. La discusión evidencia que su eficacia depende del diseño pedagógico, la selección de rasgos de alta carga funcional y la atención a patrones específicos de transferencia del español. Se concluye que el shadowing debe aplicarse como una estrategia diferenciada, diagnóstica y profesionalmente situada para fortalecer la inteligibilidad, la confianza y el rol del futuro docente como modelo oral.

Palabras clave: shadowing; enseñanza de pronunciación; educación docente EFL; producción del habla en L2; transferencia L1.



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Abstract:

Shadowing has established itself as a key technique for improving pronunciation in the teaching of English as a foreign language; however, research on this topic has gaps in Latin American teacher-training contexts and tends to focus excessively on accuracy or native-like pronunciation rather than communicative intelligibility. The objective of this article was to critically rethink the use of shadowing in EFL teacher education for Spanish speakers, proposing a conceptual framework oriented toward intelligible pronunciation. Methodologically, a critical and narrative review of theoretical, empirical, and pedagogical literature on shadowing, intelligibility, language transfer, and teacher education was conducted. The results identified four main variants of the technique standard, prosodic, selective, and technology-mediated as well as cognitive mechanisms linked to the phonological loop, bottom-up processing, automation, and deliberate practice. The discussion shows that its effectiveness depends on pedagogical design, the selection of features with high functional load, and attention to specific patterns of transfer from Spanish. It is concluded that shadowing should be applied as a differentiated, diagnostic, and professionally situated strategy to strengthen intelligibility, confidence, and the future teacher's role as an oral model.

Keywords: shadowing; pronunciation instruction; EFL teacher education; L2 speech production; L1 transfer.

1. Introduction

Over the past two decades, shadowing has grown from a niche interpreter-training exercise into one of the more widely discussed pronunciation techniques in English as a Foreign Language (EFL) instruction. Its appeal is intuitive: by asking learners to reproduce incoming speech almost as they hear it, shadowing fuses perception and production in a single act and promises to develop listening and speaking together. A growing empirical record—recently consolidated in systematic reviews of 44 studies (Whitworth & Rose, 2025)—reports gains in pronunciation, listening comprehension, and fluency across a range of settings.

Despite this momentum, the way shadowing is conceptualised has not kept pace with the accumulation of empirical studies. Two imbalances are especially consequential. The first is geographic and demographic: most evidence comes from Asian classrooms and from general EFL learners, while Spanish-speaking learners and teacher-education populations remain underexplored. The second is theoretical: a large share of the literature still frames pronunciation success in terms of accuracy or native-likeness, even as the field has reoriented around intelligibility as the proper goal of instruction (Kang et al., 2018; Saito, 2021). These imbalances matter for a specific population—Spanish-speaking pre-service English teachers—whose pronunciation carries professional as well as communicative weight.

This article responds with a conceptual contribution rather than a new empirical report. It pursues three aims: to synthesise critically what is known about shadowing for pronunciation; to propose pedagogical design principles that link the technique's cognitive mechanisms to L2 speech production and to intelligibility-oriented outcomes; and to set out a concrete research agenda attentive to Spanish-speaking teacher education. The authors' own quasi-experimental study (Rivadeneira et al., 2025) and perceptions study (Gáleas et al., 2023) are treated here as two data points within a wider field, not as the object of re-analysis.

The review is guided by three questions: How has shadowing been conceptualised, and what cognitive mechanisms are invoked to explain its effects? To what extent does the existing evidence speak to intelligibility, as opposed to accuracy or native-likeness? And what conceptual, empirical, and practical gaps remain for Spanish-speaking EFL teacher education, where the speaker is also a future model?

2. Methodology

This paper is a critical, narrative review rather than a formal systematic review or meta-analysis. The aim is interpretive synthesis: to organise a heterogeneous literature conceptually and to build an argument, rather than to estimate a pooled effect size. The review draws on three bodies of work: foundational and theoretical accounts of shadowing and pronunciation; recent empirical studies and systematic reviews of shadowing in EFL; and scholarship on intelligibility-oriented pronunciation pedagogy. Where recent systematic reviews already provide comprehensive coverage of effectiveness evidence (Whitworth & Rose, 2025), this article builds on their synthesis rather than duplicating it, focusing instead on conceptualisation and on the under-theorised Spanish-speaking teacher-education dimension. Readers seeking exhaustive effect-size evidence are directed to those systematic reviews; the contribution here is conceptual integration coupled with practical application protocols.

3. Results

3.1. Origins and Definition

Shadowing began as a training task for novice interpreters learning to listen and speak in a target language at once. Lambert (1992) provided an influential definition, describing it as a paced auditory tracking task involving the immediate vocalisation of heard input—word-for-word repetition in the same language, performed with minimal delay. What distinguishes shadowing from ordinary repetition is simultaneity: the learner begins reproducing one chunk of an utterance while still receiving the next, leaving little time to process meaning consciously.

This defining feature has methodological consequences that the literature has not always honoured. As Whitworth and Rose (2025) observe in their systematic review, studies sometimes label as 'shadowing' tasks that are in fact delayed repetition, blurring the construct and complicating cross-study comparison. A clear conceptualisation therefore matters not only theoretically but for the cumulative interpretation of evidence.

3.2. Shadowing as a Family of Techniques

A central finding of this review is that shadowing is best understood as a family of related techniques rather than a monolithic activity. Variants differ in what learners attend to and how much support they receive. Standard (or 'pure') shadowing asks for immediate reproduction of the full stream; prosody shadowing directs attention toward stress, rhythm, and intonation; content or selective shadowing foregrounds meaning or particular target items; and increasingly, technology-mediated shadowing pairs the task with automatic speech recognition (ASR) or mobile applications that supply feedback (Foote & McDonough, 2017; Huang et al., 2023). Treating these as interchangeable obscures the fact that they likely engage different processes and serve different goals.

Table 1

A Working Typology of Shadowing Variants

Variant	Primary Focus of Attention	Typical Pedagogical Goal
Standard shadowing	Whole speech stream, reproduced immediately	Automatisation; global fluency; overall prosodic patterning
Prosody shadowing	Stress, rhythm, intonation; suprasegmental features	Stress and rhythm control; weak form production; intelligible phrasing
Content / selective shadowing	Meaning or specific target items (segments, clusters)	Comprehension; targeted segmental accuracy; high-payoff features
Technology-mediated shadowing	Model speech plus automated feedback (ASR/apps)	Autonomous practice; segmental accuracy; extended exposure; self-monitoring

Note: Variants are not mutually exclusive; effective classroom sequences often combine them, beginning with prosody shadowing to establish rhythm and stress patterns, proceeding to content shadowing for high-payoff features, and supplementing with technology-mediated variants for autonomous practice (Autores, 2026).

3.3. Theoretical Mechanisms Underlying Shadowing

Why might shadowing improve pronunciation at all? The literature converges on several interlocking mechanisms, though it rarely articulates how they connect. This section outlines four core cognitive and pedagogical mechanisms that explain shadowing's effectiveness.

3.3.1. Working Memory and the Phonological Loop

Because shadowing requires learners to hold and reproduce incoming speech in real time, it places direct demands on the phonological loop within working memory. Repeated imitation is thought to strengthen short-term auditory storage and the

subvocal rehearsal system, supporting the encoding of phonological detail that ordinary listening lets learners bypass (Lambert, 1992). On this account, shadowing is partly a memory-training task whose by-product is sharper attention to sound. For Spanish speakers, this mechanism is particularly relevant because Spanish phonology is less vowel-rich than English; the phonological loop exercises learners in distinguishing and storing subtle vowel quality contrasts that do not exist in their L1 (e.g., /ɪ/ vs /i:/ or /ʌ/ vs /ɑ:/).

3.3.2. Bottom-Up Processing and Noticing

Hamada (2016) argues that shadowing trains bottom-up processing, anchoring attention on phonetic and prosodic surface features rather than on top-down inference from context. By forcing learners to track the signal closely, the task increases the likelihood that they notice features—reduced vowels, linking, intonation contours—that would otherwise pass unregistered. Noticing, in turn, is a precondition for uptake. For Spanish learners, bottom-up processing is especially valuable because Spanish prosody is relatively more stress-timed and transparent than English; many learners initially rely on top-down inference to guess meaning from morphosyntax and context, bypassing the fine-grained phonetic monitoring that English intelligibility demands. Shadowing corrects this by forcing attention to precisely the weak-form vowels, consonant clusters, and subtle intonation changes that characterise English connected speech.

3.3.3. Automatisation Through Repetition

Repeated reproduction of authentic models is held to drive automatisation: with practice, accurate articulatory and prosodic routines become faster and less effortful, freeing cognitive resources for higher-level planning (Hamada, 2019). This is the mechanism most often invoked to explain fluency gains. For teacher education specifically, automatisation of suprasegmental patterns is crucial because pre-service teachers must eventually model pronunciation fluently and naturally; stilted or effortful pronunciation undermines their credibility and provides poor input to learners.

3.3.4. Deliberate Practice

Hamada and Suzuki (2024) situate shadowing within the framework of deliberate practice, recasting it as focused, repetitive, goal-directed effort rather than passive imitation. This framing is conceptually important because it predicts that effectiveness will depend on design—on whether sessions target identifiable weaknesses, provide feedback, and progressively increase challenge—rather than on the act of shadowing per se. It also helps explain why undifferentiated 'shadowing' sometimes yields disappointing results. For Spanish-speaking teachers, deliberate practice must be specifically targeted at their L1-transfer vulnerabilities: a learner whose primary error is cluster simplification (/skri:m/ → /eskrim/) needs different practice sequences than one who neutralises vowel quality (/ɪ/ → /e/). Generic shadowing will not efficiently

address these specific fossilised patterns; deliberate practice requires diagnostic clarity and targeted feedback.

3.4. From Accuracy to Intelligibility: Reframing Pronunciation Goals

Contemporary pronunciation research has shifted from native-speaker imitation toward intelligibility: the degree to which a listener actually recovers a speaker's intended message (Kang et al., 2018; Smith & Nelson, 2019). Three constructs structure this turn—intelligibility (recognition of words), comprehensibility (the effort understanding requires), and accentedness (distance from a perceived native norm) (Saito, 2021)—and they are empirically separable. A speaker may be markedly accented yet fully intelligible, which is precisely why accent reduction is a poor target for instruction.

This reorientation has direct implications for how shadowing should be evaluated and designed. Whitworth and Rose (2025) note that shadowing research has too often relied on accuracy measures and called for more consistent use of comprehensibility and intelligibility outcomes, alongside clearer theorisation of how segmental and suprasegmental gains translate into global understanding (cf. Saito & Plonsky, 2019). The intelligibility literature offers principled guidance here: not all errors carry equal communicative cost. Work on functional load and on the priority of nuclear and word stress suggests that some contrasts and prosodic features matter far more for understanding than others (Jenkins, 2000). A shadowing pedagogy aligned with intelligibility would therefore prioritise high-payoff features rather than treating all deviations as equally worth correcting (Suzuki & Kormos, 2020).

For Spanish-speaking learners this principle is concrete and operationalisable. Spanish is broadly syllable-timed and maps sounds to spelling more transparently than English; transfer tends to flatten English vowel-quality contrasts, simplify consonant clusters, and weaken stress-based rhythm. Work on Spanish learners' English pronunciation (Coutinho et al., 2024; Rivadeneira et al., 2025) confirms that vowel mergers (/ɪ/ → /e/) and cluster reduction (initial /s/ + consonant) carry HIGH functional load for intelligibility, whereas some other errors (e.g., very slight /ð/ → /d/ substitution) carry LOW functional load. An intelligibility-oriented shadowing programme would therefore foreground exactly those features whose neglect most often impedes understanding, rather than chasing native-like realisation across the board. This distinction is practically crucial for teacher education: pre-service teachers need focused energy on features that matter, not scattered effort on all deviations.

3.5. Synthesising the Empirical Evidence

3.5.1. General Patterns

The weight of evidence is broadly positive. Across contexts, shadowing has been associated with improvements in pronunciation, listening, fluency, and learner engagement (Whitworth & Rose, 2025). Hamada (2018) reported gains in comprehensibility and segmental accuracy among Japanese university students; Martinsen et al. (2017) found video-based shadowing improved pronunciation by

strengthening imitation and self-monitoring; and Salim et al. (2020) and Ulfa and Fatimah (2019) documented gains in accuracy and in classroom participation, respectively. Studies in Romance-language contexts (Coutinho et al., 2020; Gáneas et al., 2023) report positive effects on intelligibility and fluency, lending credence to the generalisability of shadowing benefits beyond Asian populations.

3.5.2. The Segmental–Suprasegmental Asymmetry

A recurring pattern is that segmental gains tend to outpace suprasegmental ones. This is plausible on theoretical grounds: discrete segments involve identifiable articulatory gestures amenable to direct imitation, whereas stress, rhythm, and intonation rest on timing and discourse-level processing that mature more slowly. The authors' own quasi-experimental data are consistent with this asymmetry (Rivadeneira et al., 2025), as is the broader literature, which suggests that suprasegmental development typically requires longer or more explicitly prosody-focused intervention. For Spanish-speaking teachers learning English, this asymmetry has direct practical implications: whereas segmental work (vowel contrasts, consonant clusters) can show measurable gains in 8–12 weeks of focused shadowing, achieving native-like stress and intonation often requires 6–12 months of intensive prosody-specific practice.

3.5.3. Technology-Mediated Shadowing

A fast-growing strand pairs shadowing with ASR and mobile tools. Foote and McDonough (2017) showed mobile-assisted shadowing could extend practice beyond the classroom, and Huang et al. (2023) reported web-based applications improving comprehensibility and lexical intelligibility. Recent work integrating ASR feedback into shadowing curricula reports gains in pronunciation accuracy and fluency, while also cautioning that uneven access to digital infrastructure can widen rather than narrow equity gaps—a caution with clear relevance for Latin American public institutions and for teacher-education programmes in resource-constrained contexts. For Spanish-speaking teacher education, technology-mediated variants offer promise as a scaffold for autonomous practice and self-monitoring, particularly when ASR feedback is calibrated to recognise Spanish-accented English and to flag high-payoff errors rather than all deviations.

3.5.4. Methodological Limitations of the Evidence Base

Three limitations recur. Construct slippage, noted above, means that not all 'shadowing' studies study the same thing. Outcome measures lean toward accuracy and away from intelligibility and comprehensibility. And sample and context skew toward Asian, general-learner populations, with small samples and short interventions common. These limitations do not undermine the overall positive signal, but they constrain how confidently and how widely it can be generalised. Particularly acute is the absence of studies distinguishing whether the same shadowing variant is equally effective for reducing different types of L1-transfer errors, and whether feedback types differ in efficacy for Spanish-specific vulnerabilities.

3.6. The Spanish-Speaking and Teacher-Education Dimension

3.6.1. L1 Transfer Patterns and Functional Load Mapping

Generalising from Asian settings to Spanish-speaking contexts is risky. Learners differ in first-language phonology, in cultural orientation to oral practice, and in access to authentic input and technology. Spanish-L1 transfer patterns—vowel-quality neutralisation, cluster simplification, syllable-timed rhythm—differ markedly from, say, Japanese vowel epenthesis, and they implicate different intelligibility-relevant features.

The handful of region-specific syntheses now appearing underscore that shadowing for speaking in Latin American B1-level contexts remains comparatively underexplored, even as they report broadly encouraging patterns. More importantly, while Spanish L1 transfer patterns are well-documented in the accent-reduction literature, their mapping onto functional load (i.e., which errors most impede understanding) remains underdeveloped. Table 3 presents a synthesis of Spanish-L1 transfer patterns relevant to English intelligibility, mapped to high-payoff features and to the shadowing variant most likely to target each feature efficiently.

Table 3
Spanish L1 Transfer Patterns, Functional Load, and Shadowing Variant Selection

Spanish L1 Pattern	English Feature Affected	Functional Load	Intelligibility Impact	Recommended Variant
Vowel quality mergers (/i/→/e/, /ɪ/→/a/)	Vowel contrast system	HIGH	Frequent word confusions (sit/set, but/bat)	Content-selective + Prosody
Consonant cluster reduction (esp. initial /s/+C)	Consonant inventory, word onset	HIGH	Reduced intelligibility of common words (stop, sport, small)	Content-selective + Technology-mediated
Word stress weakening (Spanish: syllable-timed)	Stress placement and rhythm	HIGH	Misplaced stress changes word meaning (PREsent vs preSENT)	Prosody-focused
Weak form deletion (schwa reduction) /ð/ → /d/ or /z/ substitution	Connected speech patterns	MEDIUM	Slower speech, perceived non-fluency	Standard Prosody +
Linking avoidance (word boundary issues)	Suprasegmental fluency	MEDIUM	Slight accent, but word recognition often succeeds	Standard Content
Intonation patterns (Spanish: less variation)	Prosodic variation, discourse structure	MEDIUM	Artificial speech rhythm, audible word boundaries	Prosody + Standard
			Perceived monotone; reduced emphasis marking	Prosody-focused + Technology

Note: Functional load assignment is based on intelligibility impact reported in recent Spanish-English comparative phonology research (Coutinho et al., 2024; Rivadeneira et al., 2025). The 'Recommended Variant' column suggests which shadowing family member is most efficient for addressing each pattern; in practice, multiple variants are often combined in a sequence (Autores, 2026).

3.6.2. Shadowing Variant Selection Protocol for Spanish-Speaking Teachers

The framework presented in Table 3 enables a diagnostic-to-intervention logic: once a pre-service teacher's specific pronunciation vulnerabilities are identified (via diagnostic assessment or self-report), appropriate shadowing variants can be selected for targeted practice. The following decision tree illustrates this protocol:

- (1) **Diagnostic Phase:** Identify primary transfer patterns via short speech sample or intelligibility assessment. Prioritize high-functional-load features.
- (2) **Intervention Selection:** Match identified patterns to recommended shadowing variant(s) from Table 3.
- (3) **Sequencing:** Begin with the variant most closely aligned to the learner's primary weakness. For example, a teacher whose main issue is vowel-quality merging would begin with content-selective shadowing targeting minimal pairs (ship/cheap, sit/set), followed by prosody shadowing to automate suprasegmental patterns, and supplemented with technology-mediated variants for autonomous reinforcement.
- (4) **Integration into Teacher Training:** Embed variant selection into regular pronunciation modules; provide explicit guidance (model transcripts, video exemplars, feedback templates) for each variant.

This protocol transforms shadowing from a generic classroom activity into a targeted, diagnostically grounded intervention tailored to Spanish speakers' specific needs.

3.6.3. The Speaker as Future Model: Professional Identity and Confidence Development

Teacher education adds a dimension absent from most shadowing research: the learner is also a prospective model whose pronunciation will shape future classroom input. Reports that Ecuadorian pre-service teachers experience anxiety and low confidence about pronunciation (Abad-Céleri et al., 2024; Coutinho et al., 2020) suggest that the affective and professional stakes are higher in this population. Intelligibility here is not only a communicative asset but a component of professional competence and identity, a point that reframes what 'success' in a shadowing programmed should mean.

A pedagogically informed approach to shadowing in teacher education must therefore explicitly acknowledge and work with the professional-identity dimension. This means: (1) framing shadowing not merely as accuracy or fluency practice but as preparation for the teacher-as-model role; (2) providing explicit reflection activities in which learners consider how their pronunciation choices will affect learner input; (3) building a growth mindset by celebrating intelligibility gains as proxies for classroom effectiveness rather than native-likeness; and (4) creating peer-feedback structures in which pre-service teachers observe and reflect on their own and classmates' classroom pronunciation modelling. Evidence suggests (Whitworth & Rose, 2025) that when learners understand the pedagogical rationale for shadowing—why they are targeting certain

features and how those features matter for communication—engagement and perseverance increase. For teachers, this rationale is especially motivating when connected explicitly to their future professional role.

4. Discussion

Bringing these threads together, this article proposes an integrative framework in which the four cognitive mechanisms of shadowing are linked, through five deliberate design principles, to L2 speech production outcomes oriented toward intelligibility, appropriate for Spanish-speaking teacher education. The framework is organised as a chain: mechanisms enable learning, but only design choices channel that learning toward high-payoff features that matter for being understood, and only an intelligibility lens defines the relevant outcomes.

Table 2 presents the full framework, with each mechanism paired to a corresponding design principle and intelligibility-oriented outcome. The addition of Spanish-specific content (Table 3) and selection protocols (Section 7.2) operationalises this framework, transforming it from theory into practice.

Table 2
An Integrative Framework for Intelligibility-Oriented Shadowing in Spanish-Speaking Teacher Education

Cognitive Mechanism	Design Principle	Intelligibility-Oriented Outcome	Spanish-Specific Application
Phonological loop / auditory memory	Authentic, level-appropriate audiovisual models	Stronger encoding of high-payoff phonological contrasts	Include Spanish-accented English models; highlight vowel-quality and cluster differences
Bottom-up processing / noticing	Pre-shadowing focus on high-functional-load features	Explicit attention to intelligibility-critical features (stress, clusters, vowels)	Pre-shadow minimal pairs (/ɪ/ vs /e/); mark cluster positions; flag weak forms
Automatisation through repetition	Spaced, progressively challenging repetition	Fluent, less effortful production of high-impact prosodic patterns	Repeat stress and intonation patterns across semantically varied contexts; build automaticity of weak forms
Deliberate practice	Targeted feedback on individual L1-transfer errors	Reduction of fossilised, meaning-impeding errors specific to Spanish speakers	Diagnose top 1-2 priorities; provide explicit metalinguistic feedback; track progress on functional-load features
Professional modelling / identity	Explicit reflection on the teacher-as-model role; peer observation and feedback	Confidence in pronunciation as professional competence; intelligible, authoritative classroom speech	Discuss how pronunciation affects learner input; model your own teacher-talk; observe peers' classroom pronunciation

Note: The framework treats intelligibility, rather than native-likeness, as the terminal outcome; targets high-payoff features rather than all deviations; acknowledges Spanish L1 transfer specificity; and frames teacher confidence and professional identity as explicit outcomes. Implementation requires diagnostic assessment, variant selection per Table 3, and ongoing feedback calibrated to Spanish-specific vulnerabilities (Autores, 2026).

The framework's practical upshot is that the question 'does shadowing work?' is poorly posed. The more useful questions concern which variant, designed around which high-payoff features, for which population, produces which intelligibility-relevant outcomes. For Spanish-speaking pre-service teachers, the framework recommends a coordinated sequence: (1) diagnostic assessment of pronunciation vulnerabilities, with specific attention to functional-load features; (2) standard shadowing with authentic Spanish-accented English models to normalise Spanish-English phonological differences and build automaticity; (3) prosody-inclusive shadowing organised around stress and rhythm, supplemented by explicit weak-form work; (4) content-selective shadowing targeting vowel contrasts and consonant clusters (the high-functional-load errors); and (5) technology-mediated shadowing enabling autonomous, extended practice beyond class. Throughout, feedback should highlight functional-load features and be explicitly calibrated to Spanish learners' transfer patterns. Crucially, design must explicitly acknowledge the teacher-as-model dimension, reflecting with learners on the professional significance of intelligible pronunciation and embedding observation and feedback on classroom speech modelling.

Agenda De Investigación- Research Agenda

Several priorities follow this synthesis. First, the field needs construct discipline: studies should report task designs in enough detail to confirm that simultaneous listening-and-speaking actually occurred, and should explicitly name which variant is implemented. Second, outcome measurement should incorporate intelligibility and comprehensibility alongside accuracy, and should theorise how segmental and suprasegmental gains aggregate into global understanding. Third, Spanish-speaking and teacher-education populations require dedicated longitudinal study, including interventions long enough to move suprasegmental performance (ideally 6+ months, with spaced practice) and designs that capture affective and professional outcomes (anxiety, confidence, identity, classroom speech monitoring).

Fourth, comparative trials contrasting standard, prosody-focused, and technology-mediated shadowing, each structured around the high-payoff features identified in Table 3, would clarify which variants serve which goals for Spanish learners. Fifth, studies should empirically validate the functional-load assignments in Table 3 via intelligibility testing; it is plausible that some patterns assigned 'high' load carry lower actual intelligibility impact than estimated, and vice versa. Sixth, research should explicitly map specific Spanish L1 transfer patterns onto shadowing variant effectiveness: do Spanish learners with primary vowel-merger errors benefit more from content-selective than from standard shadowing? Does the availability of Spanish-accented models improve engagement and performance relative to native English models? (Pennington & Rogerson-Revell, 2019).

Finally, mixed-methods designs—pairing performance data with learners' own accounts of confidence, anxiety, professional identity, classroom speech monitoring, and perceived relevance to teaching—would address dimensions that purely

quantitative studies leave underexamined. Such work should also investigate whether shadowing experiences affect teachers' subsequent pronunciation pedagogy for learners; it is plausible that explicit work on teachers' own intelligibility improves their classroom pronunciation modelling and feedback, but this hypothesis remains untested (Crowther & Gass, 2019).

5. Conclusions

Shadowing has accumulated a persuasive but geographically and theoretically uneven evidence base. This review has argued that progress now depends less on demonstrating that the technique 'works' than on conceptual clarity: recognising shadowing as a family of four technique variants, each with distinct attentional and design requirements; connecting its four cognitive mechanisms through five concrete design principles to intelligibility-oriented L2 speech production outcomes; anchoring its goals in intelligibility rather than native-likeness; and mapping Spanish-specific L1 transfer patterns onto variant selection and feedback strategies.

For Spanish-speaking EFL teacher education in particular, where the learner is also a prospective model and where authentic input is scarce, an intelligibility-oriented, functionally-grounded, Spanish-aware, professionally-conscious shadowing pedagogy holds clear promise. The integrative framework and selection protocols offered here are intended as tools for designing such pedagogy and for posing sharper empirical questions. The addition of Table 3 (transfer-to-variant mapping) and Section 7.2 (selection protocol) operationalises the theory, enabling practitioners to move from generic shadowing to targeted intervention.

Realising that promise will require research that is contextually grounded, methodologically disciplined, attentive to the affective and professional stakes that distinguish teacher education from general language learning, and cognisant of the specific phonological vulnerabilities that Spanish learners bring to English. It will also require explicit, sustained attention to the teacher-as-model dimension: unlike general-learner populations, pre-service teachers' pronunciation development is inseparable from their preparation as oral models for future classes. A comprehensive shadowing pedagogy for teacher education must therefore work simultaneously on three fronts: improving learners' intelligible production, building their confidence and professional identity, and preparing them to model and teach pronunciation consciously to their own students.

CONFLICTO DE INTERESES

“Los autores declaran no tener ningún conflicto de intereses”.

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