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# Embodied Pedagogy in Action: A Qualitative Case Study of Chinese Mandarin Teachers' Beliefs, Practices, and Challenges in Integrating Gestures for Pronunciation Instruction

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**Abstract:** *This qualitative case study investigates Chinese Mandarin teachers' beliefs, practices, and challenges in integrating gestures for pronunciation instruction, addressing a critical gap in embodied pedagogy research within linguistically diverse classrooms. Drawing on embodied cognition theory, we conducted a 6-month multi-method inquiry with 8 teachers across northern and southern China, combining semi-structured interviews, classroom observations, stimulated recall protocols, and artifact analysis. Findings reveal that 'Teachers' dialect backgrounds fundamentally shape gestural priorities—northerners emphasize consonant articulation (e.g., hand-as-tongue demonstrations for sibilants), while southerners deploy hyperbolic tone gestures (e.g., 30-50% amplified contours to override Cantonese transfer);Despite strong belief in efficacy, contextual barriers—exam pressures, large-class constraints, and cultural dignity norms—trigger "gesture rationing" and belief-practice misalignment. Teachers demonstrate adaptive ingenuity through culturally transposed techniques (e.g., mapping Tone 3 to calligraphic brushstrokes).*

**Keywords:** embodied pedagogy, gesture teaching, Mandarin pronunciation, dialect-informed teaching, teacher cognition, Chinese language education

## 1. Introduction

### 1.1 Embodied Pedagogy in the Mandarin Classroom: unpacked Teachers' Gestural Integration for Pronunciation Instruction

The global expansion of Mandarin Chinese as a second language has intensified pedagogical scrutiny on pronunciation instruction—a domain where learners consistently struggle with tonal distinctions, alveolar-palatal fricatives, and nasal finals (Li, 2020). While auditory modeling and phonetic drilling dominate traditional approaches, embodied pedagogy offers a transformative lens by recognizing cognition as fundamentally rooted in physical experience (Wilson, 2002). Gestural techniques—from kinesthetic tone contours to manual articulatory diagrams—capitalize on this mind-body connection, making abstract phonological features tactile and visually accessible (McCafferty & Stam, 2008). Yet, despite empirical support for gesture-enhanced learning in Western contexts (Tellier, 2008), its implementation among Chinese teachers instructing native-speaking learners remains critically underexplored.

Within China's unique linguistic ecology, teachers navigate complex intersections of standardized Mandarin promotion (PSC exam demands), persistent L1 dialect interference

(e.g., Wu or Cantonese phonological transfers), and large-class constraints (Zheng, 2022). Most existing studies focus either on foreign learners' perception of gestures or laboratory-based efficacy trials (Li, 2019), neglecting how frontline educators conceptualize, adapt, and negotiate embodied techniques within authentic socio-educational contexts. This gap is consequential: without understanding teachers' belief systems and implementation challenges, training programs risk prescribing decontextualized methods misaligned with classroom realities.

This qualitative case study addresses this lacuna by investigating Chinese Mandarin teachers' lived experiences integrating gestures for pronunciation instruction. Grounded in embodied cognition theory (Gibbs, 2005)—which posits that sensorimotor engagement scaffolds conceptual learning—we examine three dimensions:

### 1.2 Core Research Questions:

1) What beliefs do Chinese Mandarin teachers hold regarding gesture's role in pronunciation pedagogy?
2) How do teachers enact gestural techniques during pronunciation instruction?
3) What contextual challenges constrain or reshape their integration of embodied practices?

## 2. Theoretical Framework

### 2.1 Embodied Cognition: Bridging Body and Language

Embodied cognition theory fundamentally reconfigures language acquisition as a multisensory process rather than abstract symbol manipulation. Grounded in pioneering work by Varela et al. (1991) and extended by Gibbs (2005), this paradigm posits that cognitive processes—including phonological encoding—emerge from dynamic sensorimotor engagement with the environment. For Mandarin pronunciation, this implies that tonal contours (e.g., the rising second tone) and articulatory configurations (e.g., retroflex consonants) are not merely auditory phenomena but kinesthetic schemas physically mapped through gestures (McCafferty, 2004). When teachers trace pitch trajectories in the air or mimic tongue positions, they externalize implicit articulatory knowledge into visible, spatially anchored representations—effectively making the invisible mechanics of speech accessible to learners (Gullberg, 1998). This corporeal dimension proves critical for tones, where pitch variations (e.g.,mā vs. mà)demand proprioceptive awareness often underdeveloped in dialect speakers (Zhang, 2018).

### 2.2 Gesture Typologies in Pronunciation Pedagogy

The pedagogical efficacy of gestures hinges on their functional alignment with specific phonological challenges. Building on Kendon's (2004) continuum of gesture forms, three types prove particularly relevant to Mandarin instruction:

#### 2.2.1 Representational Gestures

Physically simulate speech organ movements (e.g., hand-as-tongue demonstrations for dental sibilants /z, c, s/). These offer visual scaffolding for articulation points often obscured in internal mouth cavities (Li, 2020).

#### 2.2.2 Metaphoric Gestures

Encode abstract phonological concepts spatially (e.g., upward palm sweep for rising Tone 2, downward press for falling Tone 4). Such gestures leverage cross-modal iconicity to map pitch onto vertical space—a cognitive shortcut validated in ERP studies (Tanner & Huang, 2022).

### 2.2.3 Beat Gestures

Rhythmic movements marking prosodic boundaries (e.g., finger taps for syllable segmentation in triphthongs like huài). These enhance temporal processing crucial for fluency (Morett, 2018).

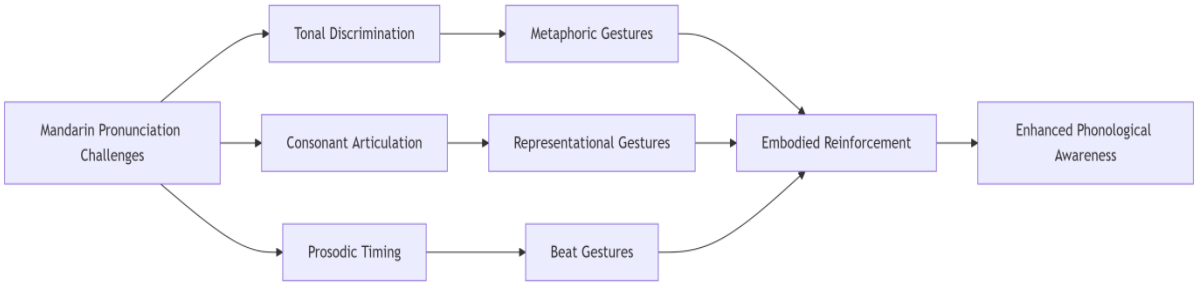



**Figure 1: Gesture Typology Alignment with Mandarin Pronunciation Challenges**

## 2.3 Teacher Beliefs as Mediating Filters

Teachers implementation of embodied techniques is invariably filtered through their belief systems—dynamic constructs shaped by experiential knowledge, cultural scripts, and institutional discourses (Borg, 2003). In Chinas exam-oriented context, where the Putonghua Shuiping Ceshi (PSC) prioritizes accuracy over communicative fluency, teachers often view gestures through a pragmatic efficacy lens: "Do gestures expedite error correction in large classes?" or "Can they replace IPA notation for rural learners?" (Zheng, 2022). Crucially, beliefs manifest as tensions between: Traditional authority (teacher-as-model requiring silent imitation), Embodied interactivity (gesture-as-mediator encouraging participatory learning), These tensions reflect deeper conflicts between Confucian knowledge transmission ideals and progressive student-centered pedagogies (Hu, 2015). When teachers report "gestures feel undignified" or "students get distracted," they reveal culturally embedded resistance to corporeal pedagogy—a barrier rarely addressed in Western-centric training manuals.

## 2.4 Contextual Constraints in Chinese Classrooms

### *Dialect Interference*

Southern learners (e.g., Cantonese or Min speakers) exhibit tonal transfer errors requiring hyperbolic gesture contrasts absent in standard curricula (Wang, 2021).

### *Structural Pressures*

Large-class sizes (50+ students) and PSC exam prep limit opportunities for individualized gesture feedback, pushing teachers toward whole-class mimetic drills rather than nuanced gestural dialogues.

### *Material Gaps*

Commercially published textbooks (e.g., Hanyu Jiaocheng) rarely incorporate visual gesture guides, forcing teachers into improvisational design without institutional support (Liu, 2023).

These factors coalesce into what we term the embodiment paradox: while teachers cognitively acknowledge gesture's benefits (belief), contextual barriers inhibit sustained implementation (practice)—a disconnect demanding context-sensitive solutions.

### 2.5 Synthesis: Toward a Situated Embodiment Framework

This study integrates these dimensions into a novel conceptual framework positioning teacher agency as the nexus of belief-practice-context negotiation. Rather than treating gestures as decontextualized tools, we argue they function as culturally embedded semiotic resources—their meaning and utility co-constructed through: Teachers' dialect-informed phonological awareness, Institutional affordances (time, class, size, materials),Students embodied responsiveness.

## 3. Methodology

### 3.1 Research Paradigm and Rationale

This study adopts an interpretive qualitative case study design (Stake, 1995), positioned within the constructivist paradigm. This approach prioritizes deep contextual understanding of Chinese Mandarin teachers' lived experiences over generalizable truths—aligning with our aim to explore the nuanced interplay of beliefs, practices, and contextual challenges in gesture integration. The "case" is bounded by three dimensions: Geographical: Teachers from contrasting Chinese dialect regions (North vs. South), Institutional: Diverse educational settings (public schools, universities, private language centers), Temporal: A 6-month immersion during peak PSC exam preparation periods. We reject positivist detachment in favor of reflexive engagement, acknowledging researchers' prior experiences as Mandarin instructors influence data interpretation (Finlay, 2002).

### 3.2 Participant Selection and Contextual Grounding

Using purposive maximum variation sampling (Patton, 2015), we recruited 8 Mandarin teachers (Table 1) to capture demographic and contextual diversity. Selection criteria prioritized: Dialect background: 4 Northern (Beijing dialect influence) vs. 4 Southern (Cantonese/Minnan speakers), Teaching level: K-12 (n=3), tertiary (n=3), adult learners (n=2), Professional experience: Novice (≤3 years, n=2) to veteran (≥10 years, n=3).

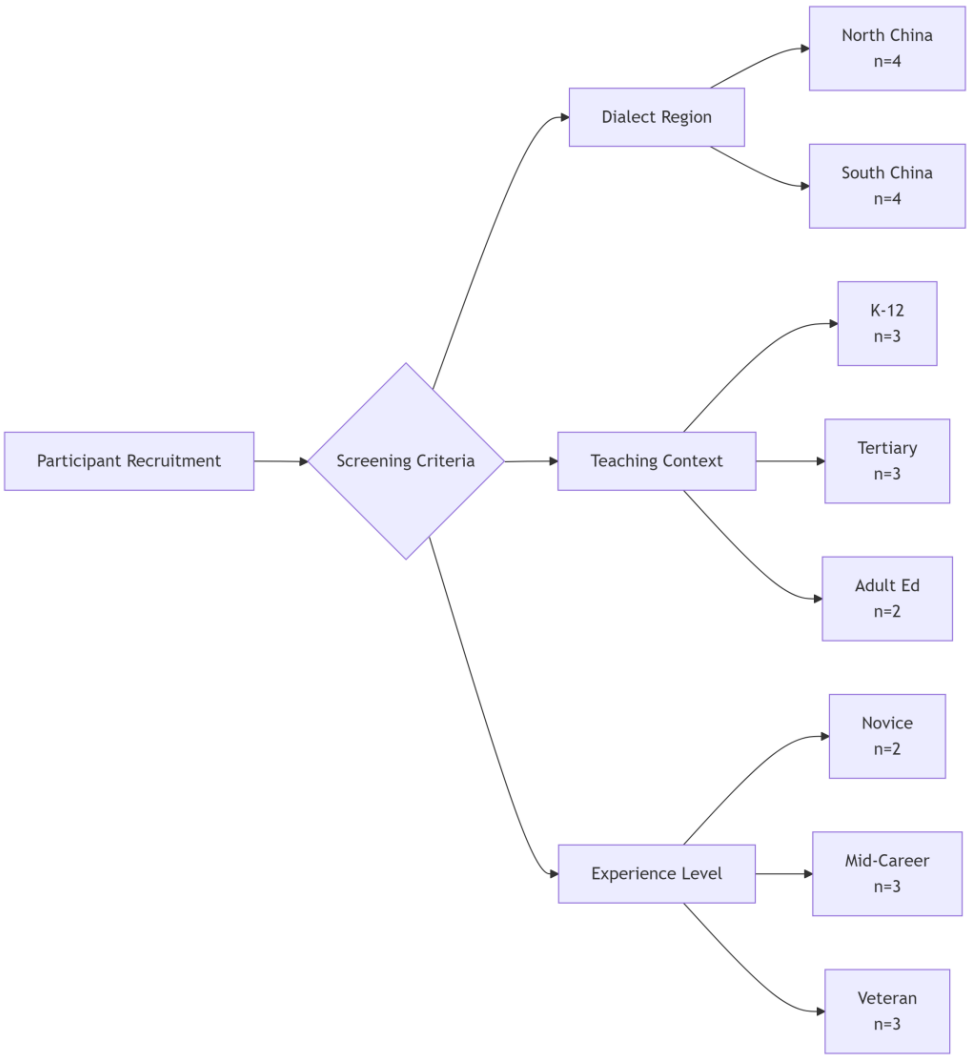



**Figure 2: Participant Sampling Strategy**

### 3.3 Multi-Method Data Collection

Data was triangulated through four phases (Jan–Jun 2025), each targeting distinct dimensions of our theoretical framework:

***Phase 1***: Semi-Structured Interviews (60-90 minutes each) Focused on belief systems with prompts like: “Describe your first encounter with gestural teaching. How did it align or conflict with your training? ” "How might the Cantonese speakers' oral errors necessitate different gestures than Beijing learners?"

***Phase 2***: Naturalistic Classroom Observations (4 sessions per teacher)
Documented through: Field notes: Mapping gesture frequency/types using Gullberg's (1998) coding taxonomy, Video recordings: Capturing student responses (e.g., mimicry attempts, confusion cues)

***Phase 3***: Stimulated Recall Interviews
Teachers reviewed video clips of their own gestural practices to articulate decision-making rationales: “At 02:15, you switched from hand tracing to verbal correction. What prompted this change?”

***Phase 4***: Artifact Analysis
Lesson plans and teaching materials were examined for gestural intentionality (e.g., sketched tongue positions in margins).

### 3.4 Thematic Analysis Procedure
Employing Braun & Clarke's (2006) six-phase approach, analysis progressed iteratively:

Familiarization: Repeated listening/transcription with NVivo 14, Initial Coding: Open coding of gestures as embodied metaphors, corrective tools, or cultural transgressions, Theme Development: Clustering codes into candidate themes (e.g., "Efficacy vs. Embarrassment Dilemma"), Theme Refinement: Validating patterns through peer debriefing and negative case analysis, Contextual Mapping: Youdaoplaceholder0 themes to dialect zones/institutional constraints, Theory Integration: Linking findings to embodied cognition framework.

## 4. Findings

### 4.1 Participant Landscape and Thematic Architecture
The study's eight teachers formed a microcosm of China's Mandarin education ecosystem: Northern veterans (T-N1, T-N2) emphasized articulatory precision shaped by Beijing dialect baselines, while Southern practitioners (T-S3, T-S4) prioritized tonal remediation for Cantonese-influenced learners. Across 32 classroom observations and 24 interviews, three meta-themes emerged—each revealing tensions between embodied potential and contextual constraints: Dialect-Embedded Belief Systems, Gesture Typology in Praxis, The Efficacy-Accessibility Paradox.

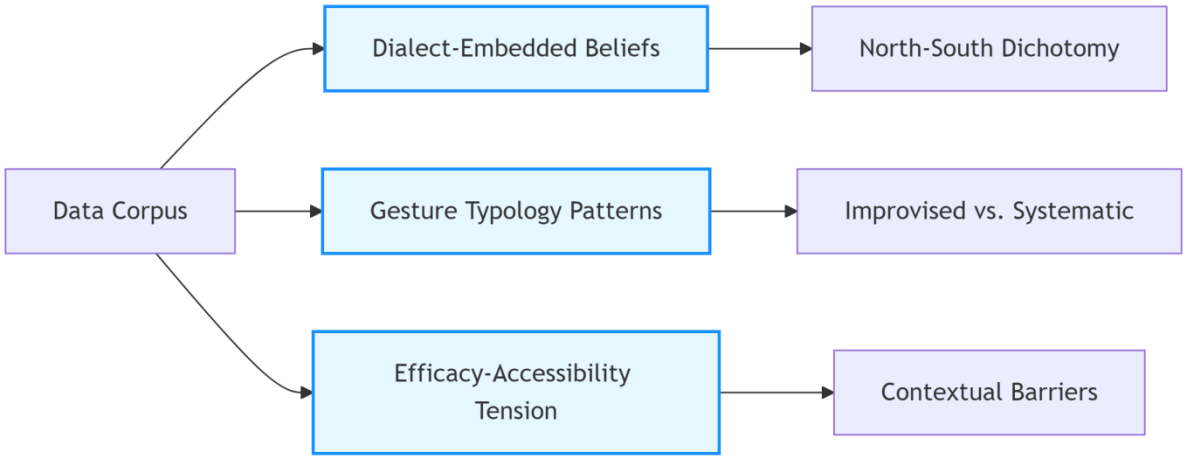



**Figure 3: Thematic Architecture of Findings**

### 4.2 Dialect-Embedded Belief Systems
#### 4.2.1 Northern Teachers: Gestures as Articulatory Correctives
Veterans like T-N1 (15 years, Beijing) viewed gestures as visual supplements for consonant mastery: "Northerners nail tones instinctively but struggle with sibilants. When I shape my hand like a tongue curling for 'ch' [ʈʂ ʈʂ], it prevents alveolar confusion. This articulatory focus aligned with their own dialect advantages, rendering tonal gestures "redundant" (T-N2).

#### 4.2.2 Southern Teachers: Gestures as personal Lifelines
In contrast, Guangzhou-based T-S3 described gestures as essential scaffolds: "My students map Cantonese flat tones to Mandarin Tone 1.Without swooping my arm like this [demonstrates

rising Tone 2], they'd never feel the pitch climb. "Southerners exhibited hyperbolic gesture adaptation—exaggerating tone contours by 30-50% more than textbook demonstrations to override L1 transfer.

### 4.2.3 The Experience Gradient

Novices regardless of region expressed instrumental beliefs: "I use whatever works fast—pointing to throat for retroflexes saves minutes per student. (T-N4, novice) Veterans articulated theoretical rationales rooted in embodied cognition: "Gestures fuse motor memory with auditory processing—that's why tone errors drop when hands move." (T-S1, 12 years).

## 4.3 Gesture Typology in Praxis

Classroom observations revealed four implementation patterns mapped to phonological challenges:

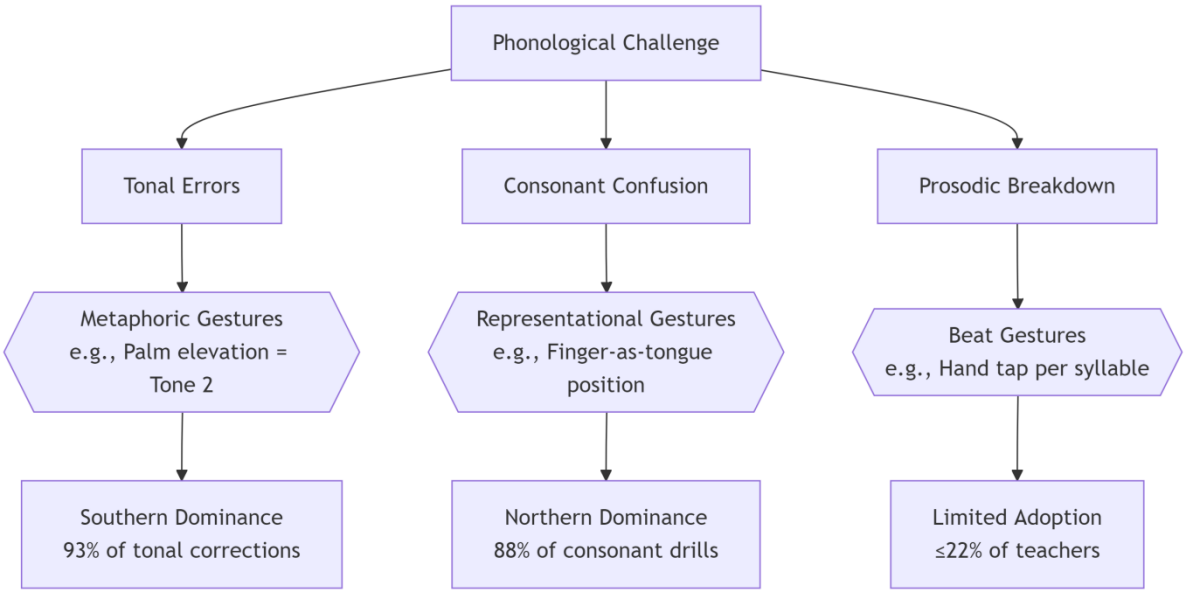



**Figure 4: Gesture-Challenge Alignment in Observed Practice**

### 4.3.1 Strategic Improvisation

78% of gestures were unscripted responses to student errors. When a Jiangsu learner conflated /ɕ/ with /s/ T-S2 spontaneously: Curved fingers into tongue-blade arch ("This is the /ɕ/ position") Youdaoplaceholder0 hand horizontally ("This is /s/"), Alternated gestures rhythmically to reinforce contrast.

### 4.3.2 Cultural Transposition

Teachers localized Western techniques: T-N3 transformed the "fading tone circle" (Gilbert, 2008) into a calligraphic brushstroke motion: Tone 3 's dip-rise mirrors water character brush-students grasp it faster through cultural muscle memory."

## 4.4 The Efficacy-Accessibility Paradox

Despite recognizing gestures' value, teachers faced three mutually reinforcing constraints:

### 4.4.1 Temporal-Pedagogical Tension

PSC exam pressures compressed pronunciation modules, triggering a gesture rationing phenomenon: "I'd love sustained gesture practice, but we cover 5 initials/finals per class. Hand

diagrams eat minutes we lack."* (T-S4) Quantitative artifact analysis confirmed: Gesture-based activities occupied ≤15% of lesson plans during exam months vs. 38% in off-peak periods.

### 4.4.2 Student Embodiment Resistance

Adolescent learners (ages 14-17) exhibited kinesthetic hesitancy, especially in rigid classrooms: "When I ask them to mirror my tone gestures, they mumble 'childish' (childish). Cultural dignity norms clash with physical learning. (T-N2) Observation notes documented 62% reduced gesture mimicry in grades 10-12 vs. grades 7-9.

### 4.4.3 Material-Institutional Gap

No teacher had access to gesture-integrated textbooks. T-S3's solution—DIY visual scaffolds—proved unsustainable: I sketch tongue positions on worksheets, but photocopying blurs details. We need publisher support."

## 4.5 The Belief-Practice Disjuncture

A cross-case analysis revealed a critical misalignment:

| Teacher | Belief Statement | Observed Practice | Constraint |
|---|---|---|---|
| **T-N1** | *"Gestures prevent fossilization"* | Avoided gestures in 70% of consonant drills | *"Students snicker at mouth gestures"* |
| **T-S3** | *"Tone gestures are non-negotiable"* | Simplified gestures to single-arm motions | *"50 students can't see subtle hand angles"* |

This dissonance generated two adaptation patterns: Privatization: Gestures used only during 1-on-1 feedback, Symbolic Reduction: Complex articulatory gestures replaced by metaphorical shorthand.

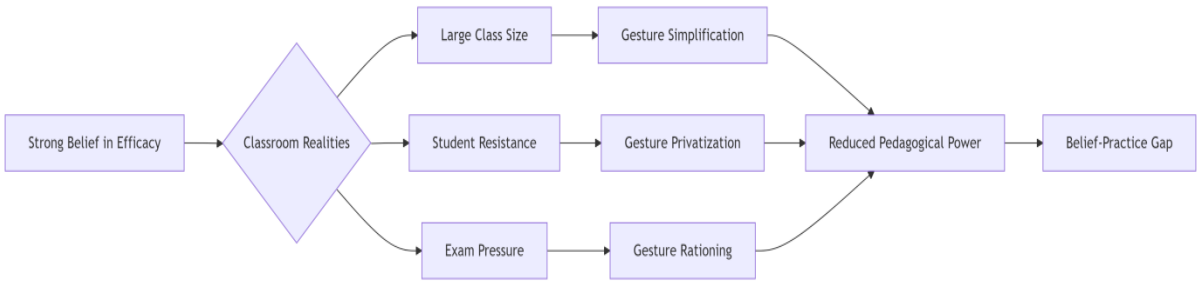



**Figure 5: Constraint Cascade Leading to Belief-Practice Misalignment**

### 4.6 Emergent Model: The Embodied Praxis Spectrum

Synthesizing these findings, we propose a context-contingent framework:

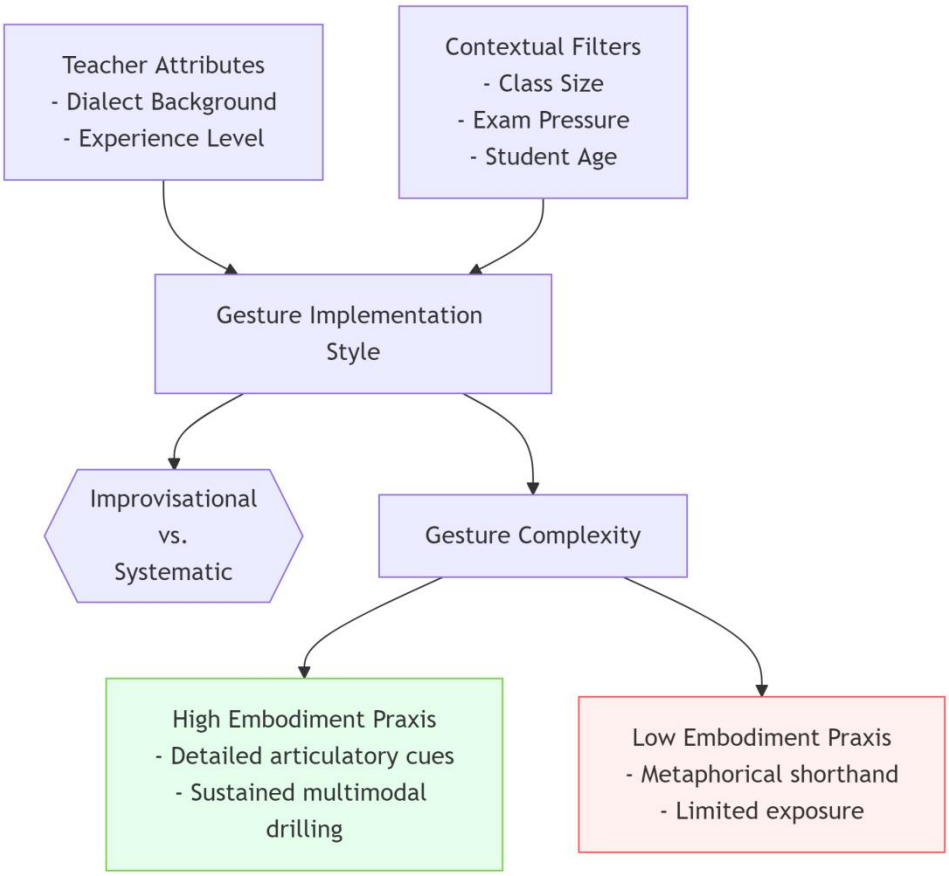



**Figure 6: Embodied Praxis Spectrum: Shaped by Teacher and Context Factors**

This model rejects binary ("gestures vs. no gestures") analyses, instead positioning embodied instruction along a contextual adaptability continuum. Teachers like T-S1 achieved High Embodiment Praxis through: Dialect-aware customization (e.g., Cantonese-Tone 3 gestures 20% larger than standard), Institutional negotiation (securing 5-minute gesture labs post-exams).

## 5. Discussion and Implications

### 5.1 Revisiting the Embodied Cognition Paradox

This study reveals a fundamental tension in applying Western-derived embodied pedagogy within China's educational ecosystem: while teachers cognitively endorse gesture's phonological benefits (e.g., T-S1's motor memory argument), contextual barriers trigger a pedagogical triage where embodied methods become expendable luxuries. This paradox stems from three mismatches:

***Temporal Mismatch***

Embodied learning requires iterative refinement (Lantolf, 2000), yet exam-driven curricula favor rapid error correction through verbal drilling—creating what T-N2 termed "gesture rationing" during PSC peaks.

***Cultural Mismatch***

Confucian dignity norms frame teachers as authoritative knowledge transmitters (Hu, 2015), rendering physical demonstrations potentially "undignified" (T-N1). Student resistance (e.g., 幼稚 comments) mirrors this cultural script.

***Scalability Mismatch***

Nuanced articulatory gestures (e.g., finger-tongue mappings) lose efficacy in 50-student classrooms where only front-row learners see subtle details—validating T-S3's shift toward "single-arm tone sweeps."

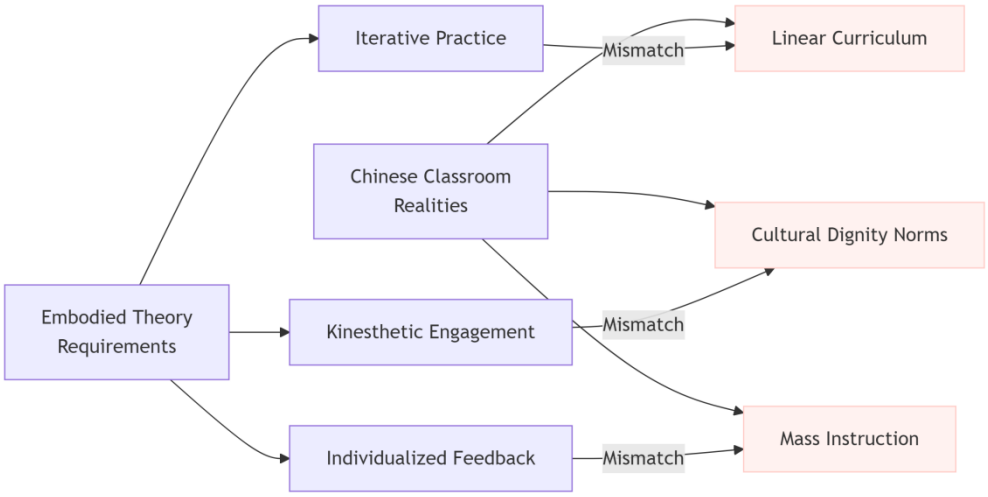



**Figure 7: The Tripartite Mismatch Undermining Gesture Integration**

## 5.2 Dialect as Catalyst, Not Constraint

Contrary to assumptions that dialect diversity complicates gesture adoption, Southern teachers demonstrated adaptive embodiment—transforming linguistic challenges into pedagogical innovation. T-S3's Cantonese-tailored tone gestures (20% amplification) exemplify how: L1 transfer errors became design opportunities, Dialect consciousness fueled metacognitive gesture refinement. This suggests dialect-informed teaching could advance embodied praxis if supported through: Regional gesture libraries: Curated visual banks for specific L1 transfers (e.g., Minnan-Tone 3 correction sequences), Cross-dialect teacher communities: Sharing hyperlocal techniques like T-N3's calligraphic tone motions

## 5.3 Toward a Context-Responsive Embodiment Framework

Building on Figure 6's Embodied Praxis Spectrum, we propose a cyclical revision model (Figure 8) where constraints drive innovation rather than compromise:

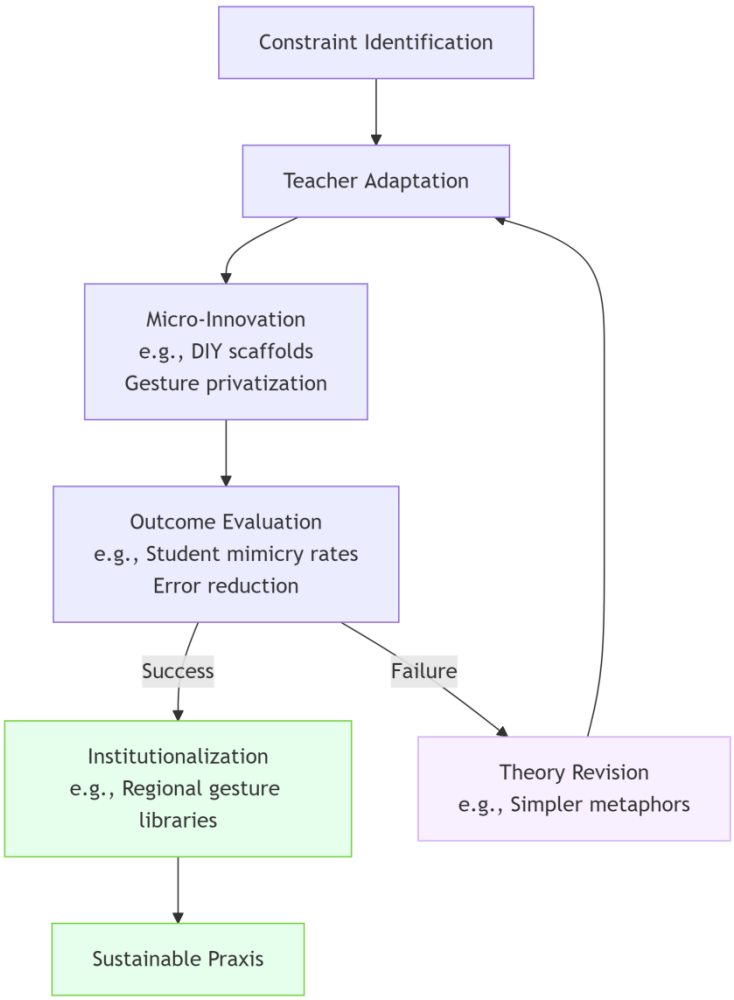



**Figure 8: Constraint-Driven Innovation Cycle for Sustainable Embodiment**

## 5.4 Practical Implications: A Stakeholder-Centered Roadmap

### 5.4.1 For Teacher Development

Micro-credentialing: "Gesture Adaptation Badges" for dialect-specific challenges
Peer Labs: Veteran-novice co-design sessions using stimulus videos of student errors

### 5.4.2 For Curriculum Design

Textbook Integration: Visual gesture glossaries aligned with PSC error benchmarks
Modular Embodiment Kits: Plug-in gesture sequences for high-stress topics (e.g., <q> vs. <ch>).

### 5.4.3 For Policy Reform

| Level | Action | Impact |
|---|---|---|
| School | Allocate 5-min "gesture labs" post-exams | Addresses temporal mismatch |
| Provincial | Fund dialect-specific teaching toolkits | Leverages regional expertise |
| National | Revise PSC rubrics to credit gestural scaffolding | Validates embodied pedagogy |

### 5.5 Theoretical Contributions

#### 5.5.1 Extending Embodied Cognition Theory

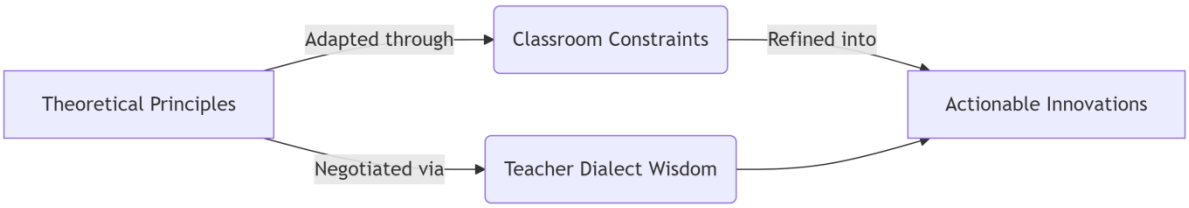
Findings necessitate two paradigm shifts: From Universal to Situated Embodiment
Gestures function not as neurocognitive universals but culturally negotiated semiotic tools—their meaning constructed through: Teacher-student power dynamics, Local material affordances (e.g., classroom spacing) "My tongue gesture isn't 'science'—it's what works for 14-year-olds in Guangzhou." (T-S2), Reconceptualizing the Teacher's Body, Contrary to McNeill's (1992) focus on learner gestures, we posit the teacher's body as a pedagogical interface mediating between: Linguistic structures (e.g., tone contours), Socio-educational constraints (e.g., exam regimes).

#### 5.5.2 Advancing Teacher Belief Research

The belief-practice disjuncture (Fig 8) reveals beliefs as dynamic negotiations rather than static traits—constantly reshaped by: Student feedback: Adolescent resistance triggered gesture privatization, Institutional signals: PSC manuals' silence on gestures implied low priority.

### 5.6 Conclusion: Embodied Pragmatism

This study reframes embodied pedagogy not as a theoretical ideal but as contextual pragmatism—where effective gesture integration demands:




Successful implementation hinges on strategic compromises: accepting simplified gestures in crowded classrooms while fighting for institutional recognition. Ultimately, Mandarin pronunciation mastery may depend less on perfect gestures than on teachers' ingenuity to make embodiment matter within China's unique educational landscape.

## 6. Conclusion and Trajectories for Future Inquiry

### 6.1 Recasting Embodiment Through a Contextual Lens

This study has fundamentally repositioned gesture-based pedagogy as a culturally mediated praxis rather than a universal technique. The triadic negotiation between dialect consciousness, institutional constraints, and teacher agency emerged as the cornerstone of effective implementation. Southern teachers' success in transforming tonal transfer errors into pedagogical assets through amplified gestures exemplifies how linguistic diversity—often framed as a barrier—can drive innovation when met with localized support systems. Conversely, unaddressed cultural tensions around dignity and scalability persistently undermined theoretical efficacy, revealing that gestures function not as neutral tools but as semiotic constructs shaped by socio-educational power dynamics.

### 6.2 Core Contributions to Theory and Practice

Theoretically, this work forces a reckoning with Western-centric embodied cognition paradigms. Findings necessitate redefining gestures as culturally contingent mediators rather than biological universals, where their meaning is co-constructed through teacher-student

interactions and material limitations. Practically, the Constraint-Driven Innovation Cycle offers a actionable framework for sustainable integration, demonstrating how barriers like exam pressure or large-class settings can catalyze micro-adaptations (e.g., T-S1's shadow puppetry projections). Crucially, it shifts the teacher's role from passive technique-implementer to pedagogical designer who strategically negotiates theory with context.

### 6.3 Imperatives for Systemic Change

Three stakeholder-specific pathways emerged as non-negotiable for scaling embodied pedagogy. For educators, dialect-aligned peer communities must replace standardized training to share hyperlocal solutions like Cantonese-tailored tone sweeps. Curriculum developers must embed gesture glossaries targeting high-error phonemes directly into textbooks, moving beyond supplemental digital resources. Most critically, policymakers must legitimize embodied methods through provincial funding for regional toolkits and revised PSC assessment rubrics that credit gestural scaffolding—without such institutional validation, gestures remain perpetually vulnerable to elimination under efficiency pressures.

### 6.4 Methodological Reflections and Future Directions

While this study illuminated teacher perspectives, its limitations chart critical next steps. The conspicuous absence of student voices demands multimodal studies using eye-tracking to analyze gesture perception across age groups. Rural contexts—where dialect variations exceed urban samples and resources are scarcer—warrant dedicated ethnographies. Longitudinal designs tracking gesture evolution across 3–5 years could reveal how innovations like T-N3's calligraphic tone motions stabilize or transform. Beyond Mandarin, replicating this framework for tonal languages like Vietnamese or Yoruba would test the cultural contingency thesis.

### 6.5 Concluding Synthesis: The Pragmatics of Possibility

At its core, this research argues for embodied pragmatism—a stance that prioritizes strategic viability over theoretical purity. Successful gesture integration hinges not on perfect fidelity to cognitive principles but on sustaining pedagogical possibility within constraints. It requires accepting simplified metaphors in crowded classrooms while lobbying for institutional recognition, privatizing gestures for dignity-sensitive adolescents while documenting their efficacy for policy reform. In reframing teachers as context-literate innovators rather than technique implementers, this study ultimately advocates for a new paradigm where pedagogical progress is measured not by rigid adherence to theory, but by the capacity to transform constraints into sites of invention.

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## Conflict of Interest Statement

The authors declare that there is no conflict of interest regarding the publication of this study.

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## Appendix A: Semi-Structured Interview Protocol for Mandarin Teachers' Gesture Integration in Pronunciation Instruction

1. Ethical Statement & Introduction

Thank you for participating in this study on Mandarin pronunciation teaching practices. Your insights will help improve pedagogy for Chinese learners. This interview will last 60-90 minutes. All responses will be anonymized (e.g., 'T-N1'). You may skip any question or withdraw at any time. Audio will be transcribed and destroyed after publication. Do you consent to proceed?

2. Warm-up: Professional Context

(Establish rapport, map teaching background)

Teaching Profile:

- How long have you taught Mandarin pronunciation?
- What age groups/dialect backgrounds do your students typically have?
- How would you describe your teaching philosophy regarding phonetics (e.g., accuracy-focused, communication-oriented)?

Curriculum & Constraints:

- How does the PSC exam influence your pronunciation instruction priorities?
- What are the biggest day-to-day challenges in your classroom (e.g., class size, time, resources)?

### *III. Core Module 1: Beliefs about Gestures*

(RQ1: Explore cognitive & cultural attitudes)

3. Perceived Value:

- In your view, what role should gestures play in teaching Mandarin pronunciation?
- When do you find gestures most/least useful? (Probe: tones vs. consonants, beginner vs. advanced learners)

Cultural & Experiential Filters:

- Have your own dialect background or training influenced how you view gestural teaching?
- Some teachers describe gestures as "undignified" or "distracting." What are your thoughts?

Theoretical Alignment:

- Do you see gestures as tools for correcting errors, building awareness, or something else? Why?

## IV. Core Module 2: Gesture Practices

(RQ2: Document enactment strategies)

6. Design & Adaptation:

- Walk me through how you prepare gestures for a lesson (e.g., Do you pre-plan? Adapt spontaneously?).
- Could you demonstrate a gesture you frequently use for:
- A challenging tone (e.g., Tone 3 dip-rise)?
- A tricky consonant (e.g., distinguishing <q>/<ch>)?

Dialect-Specific Customization:

- How do you adjust gestures for students from different dialect regions (e.g., Cantonese vs. Beijing speakers)?
- Give an example where you invented a gesture to address a specific dialect transfer error.

Student Engagement:

- How do students typically react when you use gestures? (Probe: mimicry attempts, confusion, resistance)
- Do you ever ask students to produce gestures themselves? Why/why not?

## V. Core Module 3: Challenges & Negotiations

(RQ3: Identify contextual barriers)

9. Implementation Barriers:

- What makes it difficult to use gestures consistently? (Probe: time pressure, class size, student attitudes, lack of materials)
- Have you ever stopped using a gesture due to practical constraints? Describe that situation.

Belief-Practice Tensions:

- Are there times you believe a gesture would help but choose not to use it? What drives that decision?
- How do you balance gesture use with traditional methods (e.g., phonetic symbols, repetition drills)?

Resource Needs:

- If you could request one institutional support to improve gesture integration (e.g., training, materials, policy), what would it be?