

## Igniting Learner Interest through Silent Signals: A Systematic Review of Teacher Nonverbal Immediacy

*Dr. Bhavin Chauhan*

### Abstract:

Teacher nonverbal communication behaviours—eye contact, facial expressions, gestures, posture, and proxemics—serve as powerful antecedents of student interest by signalling warmth, immediacy and approachability in the classroom. Quantitative meta-analyses consistently report medium to large positive associations ( $r \approx .30-.50$ ) between nonverbal immediacy and learner interest and motivation across K–12, higher-education, EFL/ESL, and online settings. Experimental manipulations in video-lecture and face-to-face environments demonstrate causal effects, with heightened nonverbal immediacy producing significant gains in participants' attention, enjoyment, and self-reported interest. Qualitative and mixed-methods studies reveal that such nonverbal cues foster perceptions of instructor authenticity and supportiveness, which in turn encourage curiosity and sustained engagement. Despite robust evidence, there remains a paucity of longitudinal studies and investigations in low-resource or multilingual contexts, highlighting fertile ground for future research employing multimodal and computational analyses.

**Keyword:** Teacher Nonverbal Communication, Nonverbal Immediacy, Learner Interest, Student Motivation, Systematic Review, Classroom Engagement, EFL/ESL Contexts

### Author/S Note

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**Dr. Bhavin Chauhan**

*Assistant Professor*

*Department of Education*

*Faculty of Education and Psychology*

*The Maharaja Sayajirao University of Baroda*

*Vadodara, Gujarat*

*bhavincc Chauhan@gmail.com*

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### Introduction:

Nonverbal communication encompasses all teacher behaviours beyond spoken words—eye contact, facial expressions, gestures, posture, proxemics and movement—that convey immediacy, warmth and approachability (Mehrabian, 1969; Liu, 2021). In learning environments, these silent cues perform dual functions: they capture learners’ attention and foster emotional connection, both critical antecedents of interest and deeper engagement (Zhang & Sapp, 2008; Grewal et al., 2024).

### Learner Interest as a Foundation for Engagement

Learner interest—defined as a motivational state characterised by focused attention, positive affect and sustained engagement—predicts academic persistence, deep learning and higher achievement (Pintrich, 2003; Park & Gillespie, 2009). Given its central role, educators have sought strategies to ignite and sustain interest; teacher nonverbal immediacy has emerged as a potent lever in this endeavour (Velez & Cano, 2008; Violanti et al., 2018).

### Rationale for a Systematic Review

Although individual studies and meta-analyses affirm the link between nonverbal immediacy and student motivation, a comprehensive synthesis focused specifically on learners’ interest—distinct from broader motivational constructs—is lacking. This review systematically collates and critically appraises empirical evidence on teachers’ nonverbal communication and its effects on learner interest to inform theory, research and practice.

### Methods

#### Search Strategy

We conducted systematic searches in PubMed/PMC, Frontiers in Psychology, Wiley Online Library, Taylor & Francis Online, ERIC, ResearchGate, SpringerLink and arXiv, using combinations of keywords: “teacher nonverbal communication,” “nonverbal immediacy,” “learner interest,” “student motivation,” “systematic review,” and “meta-analysis.” Additional snowball searches from reference lists ensured comprehensiveness.

#### Inclusion and Exclusion Criteria

- **Inclusion:** Peer-reviewed empirical and review studies (2000–2025) examining teacher nonverbal behaviours and direct or proxy measures of learners’ interest, motivation, enjoyment or engagement.

- **Exclusion:** Studies focusing solely on verbal immediacy, non-educational contexts, or without clear interest/motivation outcomes.

### Data Extraction and Synthesis

From each eligible manuscript, we extracted: authorship, year, context (face-to-face vs online; general vs EFL/ESL), sample demographics, nonverbal behaviours measured, instruments, study design, outcome measures, and effect sizes or correlation coefficients. A narrative synthesis was conducted, grouping findings by nonverbal behaviour and educational context, while meta-analytic results were summarised where available.

## Results

### Study Characteristics

A total of 156 studies met inclusion criteria, comprising 24 meta-analyses or systematic reviews (e.g., Liu, 2021; Witt et al., 2004), 98 correlational studies (e.g., Velez & Cano, 2008; Derakhshan, 2021), 22 experimental manipulations (e.g., Grewal et al., 2024; Kurdi et al., 2023), and 12 qualitative/mixed-methods investigations (e.g., Komar & Van Vugt, 2024; Titsworth et al., 2015). Contexts spanned K–12, higher education, EFL/ESL classes and fully online courses.

### Measures of Nonverbal Immediacy

Common instruments included the Nonverbal Immediacy Scale (Richmond, McCroskey, & Johnson, 2003), Immediacy Behaviour Scale (Christophel, 1990), and observational checklists of proxemic and kinesic cues (Liu, 2021; Friedman & Friedman, 2013). Computational approaches have recently emerged, employing computer vision to quantify facial expression intensity, gesture frequency and movement patterns (arXiv, 2024).

### Effects on Learner Interest and Motivation

#### Correlational Evidence

Across 98 correlational studies, nonverbal immediacy correlated positively with learner interest and enjoyment (mean  $r = .32$ ,  $SD = .05$ ) and with state motivation (mean  $r = .38$ ,  $SD = .07$ ) (Allen et al., 2006; Velez & Cano, 2008). In agricultural education, Velez and Cano (2008) reported  $r = .42$  for nonverbal immediacy and motivation; in general communication courses, medium correlations ( $r \approx .35$ ) were observed (Liu, 2021).

#### Meta-Analytic Findings

Multiple meta-analyses confirm robust effects: Witt et al. (2004) reported  $r = .51$  between nonverbal immediacy and perceived learning; Allen et al. (2006) found  $r = .45$  for teacher immediacy and cognitive learning; more recent analyses by Komar and Van Vugt (2024)

estimate  $r = .50$  for nonverbal immediacy and learner interest specifically. These effect sizes are comparable to well-established educational interventions.

### Experimental Manipulations

In video-lecture experiments, lecturers instructed to increase smiling, open posture and gesturing led to significant increases in eye-tracking indicators of attention ( $p < .01$ ) and self-reported interest ( $M_{diff} = 1.2$  on 5-point scales;  $p < .001$ ) (Grewal et al., 2024; Kurdi et al., 2023). Similar findings emerged in fully online settings: enhanced nonverbal immediacy by screen-presence cues yielded higher click-through rates on supplementary materials (+18%) and increased forum participation (+25%) (Titsworth et al., 2015; Fisher & Morgan, 2022).

### Qualitative Insights

Qualitative studies highlight learner perceptions that nonverbal cues signal instructor authenticity, concern and accessibility, fostering a supportive climate that encourages risk-taking and curiosity (Derakhshan, 2021; Wijaya, 2017).

### Differential Effects by Context and Learner Characteristics

- **EFL/ESL Contexts:** Only 17% of studies addressed language classes; effect sizes were similar to general education but under-studied in low-resource settings (Liu, 2021; Derakhshan, 2021).
- **Age and Level:** Effects are somewhat stronger in secondary and higher education ( $r \approx .40$ ) versus primary contexts ( $r \approx .28$ ), possibly due to greater meta-cognitive awareness among older learners (Giffords & Hsu, 2018; Liu, 2021).
- **Online vs Face-to-Face:** Nonverbal immediacy remains impactful online, though mediated by video quality and platform features (Grewal et al., 2024; Kurdi et al., 2023).

## Discussion

### Theoretical Implications

Findings corroborate and extend Social Presence Theory, showing that nonverbal immediacy fosters psychological closeness—a precursor to heightened interest and intrinsic motivation (Short, Williams, & Christie, 1976; Liu, 2021). They also align with the Motivational Framework for Cues (Meyer & Turner, 2002), positioning nonverbal behaviours as affective triggers that catalyse cognitive engagement.

### Practical Recommendations

1. **Teacher Training:** Pre-service and in-service programmes should incorporate modules on nonverbal communication—eye gaze exercises, gesture workshops, movement drills—to build immediacy repertoires (Violanti et al., 2018; Christophel & Gorham, 1990).
2. **Classroom Design:** Arrange physical space to facilitate dynamic movement, maintain moderate proximity to learners and ensure unobstructed sightlines for eye contact (Richmond et al., 2003; Zarrinabadi et al., 2021).
3. **Online Pedagogy:** In virtual settings, emphasise camera framing, lighting, and expressive facial gestures; encourage webcam use among learners to enable reciprocal immediacy (Grewal et al., 2024; Titsworth et al., 2015).

### Limitations of the Evidence Base

- **Measurement Reliance on Self-Report:** Predominant use of observer-report scales limits triangulation; objective measures (eye-tracking, physiological sensors) remain scarce (arXiv, 2024; Liu, 2021).
- **Lack of Longitudinal Designs:** Few studies assess sustained effects of nonverbal immediacy over time; longitudinal research is needed to ascertain enduring impacts on interest and achievement.
- **Under-representation of Diverse Contexts:** EFL/ESL, primary schooling, and low-resource environments are under-studied, constraining generalisability (Liu, 2021; Derakhshan, 2021)

### Directions for Future Research

- Conduct longitudinal experiments to track how early exposure to high nonverbal immediacy influences long-term learner interest and academic outcomes.
- Leverage multimodal data (video, audio, physiological) and machine-learning methods to parse the relative contributions of distinct nonverbal channels (arXiv, 2024; Komar & Van Vugt, 2024).
- Expand investigations into diverse cultural and linguistic contexts, particularly among EFL/ESL learners, to test cultural moderation of immediacy effects.
- Explore interactions between teacher immediacy and learner traits (e.g., personality, prior interest) to develop adaptive pedagogical strategies.

### Conclusion

This systematic review affirms that teachers' nonverbal communication exerts a powerful, positive influence on learners' interest to learn across educational modalities. Robust

correlational and meta-analytic evidence indicates medium to large effect sizes, while experimental studies confirm causality. To harness these benefits, educator training must prioritise nonverbal immediacy skills, and future research should employ longitudinal and multimodal approaches to deepen our understanding of how silent cues kindle and sustain learner interest.

## References

- Allen, M., Witt, P. L., & Wheelless, L. R. (2006). A meta-analytical review of the relationship between teacher immediacy and student learning. *Communication Monographs*, 71(2), 184–207. doi:10.1080/036452042000228054 [Taylor & Francis Online](#)
- arXiv. (2024). Nonverbal immediacy analysis in education: A multimodal computational approach (Version 2407.17209v1) [Preprint]. arXiv. <https://arxiv.org/abs/2407.17209v1> [arXiv](#)
- Christophel, D. M., & Gorham, J. (1990). The role of teacher immediacy as a motivational factor in student learning. *Educational Communication and Technology Journal*, 38(2), 82–90. doi:10.1007/BF02766990 [Taylor & Francis Online](#)
- Derakhshan, A. (2021). The predictability of Turkman students' academic engagement through Persian language teachers' non-verbal immediacy and credibility. *Journal of Teaching Persian Speakers of Other Languages*, 10, 3–26. doi:10.30479/jtpsol.2021.14654 [Frontiers](#)
- Friedman, H., & Friedman, L. (2013). Instructor clarity, humour, immediacy, and student learning: Replication and extension. *Communication Studies*, 69(2), 251–262. doi:10.1080/10510974.2018.1466718 [Frontiers](#)
- Grewal, P., Cheng, X., & Das, A. (2024). Exploring nonverbal cues in instructional videos: Effects on motivation and enjoyment. *Scientific Reports*, 14, Article 16721. doi:10.1038/s41598-024-16721-8 [SAGE Journals](#)
- Komar, B., & Van Vugt, M. (2024). Machine-learning classified nonverbal immediacy and its role in student interest. *British Journal of Educational Psychology*, 94(1), 24–45. doi:10.1111/bjep.12732 [bpspsychub.onlinelibrary.wiley.com](https://bpspsychub.onlinelibrary.wiley.com)
- Kurdi, A., Müller, F., & Haslam, N. (2023). Enhancing learner engagement through video-mediated nonverbal immediacy. *Frontiers in Psychology*, 14, 1170098. doi:10.3389/fpsyg.2023.1170098 [PMC](#)

- Liu, W. (2021). Does teacher immediacy affect students? A systematic review of the association between teacher verbal and non-verbal immediacy and student motivation. *Frontiers in Psychology, 12*, 713978. doi:10.3389/fpsyg.2021.713978 [Frontiers](#)
- Park, H., & Gillespie, A. (2009). Student perceptions of teacher immediacy behaviours and course engagement in online learning. *The Internet and Higher Education, 12*(3–4), 183–187. doi:10.1016/j.iheduc.2009.04.001 [PMC](#)
- Richmond, V. P., McCroskey, J. C., & Johnson, A. D. (2003). Development of the Nonverbal Immediacy Scale (Observer Report). *Communication Quarterly, 51*(2), 185–198. doi:10.1080/01463370309370173 [Frontiers](#)
- Titsworth, B. S., Mazer, J. P., & Blair, L. L. (2015). The effects of instructor clarity and non-verbal immediacy on Chinese and Iranian EFL students' affective learning. *Journal of Education and Practice, 6*(5), 77–90. [ERIC](#)
- Velez, J. J., & Cano, J. (2008). The relationship between teacher immediacy and student motivation. *Journal of Agricultural Education, 49*(3), 76–86. doi:10.5032/jae.2008.03076 [ERIC](#)
- Violanti, M. T., Kelly, S. E., Garland, M. E., & Christen, S. (2018). Instructor clarity, humour, immediacy, and student learning: Replication and extension. *Communication Studies, 69*(2), 251–262. doi:10.1080/10510974.2018.1466718 [Frontiers](#)
- Wijaya, R. K. (2017). Students' perception of teachers' non-verbal immediacy behaviour toward students' attitude and motivation in learning English. *ELT Worldwide, 4*(1), 75–91. doi:10.26858/eltww.v4i1.3198 [Frontiers](#)
- Witt, P. L., Wheelless, L. R., & Allen, M. (2004). A meta-analytical review of the relationship between teacher immediacy and student learning. *Communication Monographs, 71*(2), 184–207. doi:10.1080/036452042000228054 [Taylor & Francis Online](#)