

Role of Teacher–Student Interaction in Punjabi Language Acquisition among Secondary School Learners: A Quantitative Descriptive-Correlational Empirical Study

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Abstract

Language learning is a social process through interaction. The present study focused on the role of teacher–student interaction in learning the Punjabi language among the secondary school students. A quantitative descriptive-correlational research design was used for analyzing the relationship between classroom interaction and the level of proficiency in the Punjabi language. The convenience sampling method was used to obtain a sample of 100 secondary school students (50 male and 50 female) from three secondary schools located in Punjab, India. The collected data covered teacher-student interaction, classroom involvement and proficiency in the language through a structured 5-point Likert scale questionnaire. The statistical analyses consisted of descriptive statistics, Pearson product-moment correlation, independent-samples t-tests and descriptive mean comparisons. The results showed that the relationship between teacher–student interaction and proficiency in the Punjabi language was found to be positive and statistically significant ($r = .68$, $p < .001$). Students in highly interactive classrooms showed significantly higher language achievement ($M = 3.85$) than students in low-interactive classrooms ($M = 2.91$). Also, female students scored slightly higher on the language proficiency score than male students ($t = 2.18$, $p = .032$). Based on the findings, it is concluded that interactive teaching models are effective in the learning of regional languages, and it is suggested that learner-centred pedagogies should be used in the Punjabi language classroom.

Keywords: *Teacher–Student Interaction, Punjabi Language Acquisition, Classroom Communication, Language Proficiency*

1. Introduction

Language is an essential medium that carries a message of communication, culture, identity, and cognition. Regional languages of the country as diverse as India have a significant role in preserving the cultural heritage and social cohesion of the country. Punjabi is a medium of communication, a language of daily life, and an expression of rich culture, mainly in the state of Punjab. Teacher–student interaction means the interaction of ideas, questions, feedback, and interpersonal communication between teachers and students, whether they are done in forms of structured interaction or spontaneous interaction. This interaction provides opportunities for students to be actively involved with language, to negotiate meaning, and to become communicatively competent. Research in Scotland reveals that interactive classrooms stimulate the motivation, engagement, self-confidence, and achievement of learners every time they are used. Although communicative language teaching (CLT) was accepted everywhere, in classrooms of PUNJAB, there is a significant number of classrooms using traditional and teacher-centered teaching methods such as lectures and rote memorization. These “old-fashioned” models constrain opportunities for rich, contextual language production and long-term language development. Therefore, empirical studies to explore the systematic relationship between teacher–student interaction and language outcomes play an important role for the modernization of the teaching–learning system of the Punjabi language.

1.1 Significance of the Study

The findings of this study have great implications on regional language pedagogy. This study confirms that teacher–student interaction has a significant impact on the students' command of the Punjabi language, thus offering empirical evidence for teachers to have a communicative approach in teaching. The study has shown that the active involvement of students increases their psychological self-confidence and functional language competence. Moreover, these insights provide clear guidance to curriculum designers and policymakers in India to systematically promote student-centered learning pedagogies. Last but not least, this study fills a unique lacuna

in the literature on regional language acquisition and lays the groundwork for future empirical research in multilingual education in India.

1.2 Delimitations of the Study

This study is bounded by several specific constraints:

- **Sample & Scope:** The participant pool is restricted to 100 secondary school students drawn from three selected schools in Punjab, India.
- **Variables:** The investigation is restricted to the teacher-student interaction, and external socio-economic or psychological variables or the student's level of Punjabi language proficiency (e.g., family income, implicit student motivation, or parents' literacy levels) are not included.
- **Design:** The research is a descriptive-correlational, quantitative, and cross-sectional design, and it is based only on self-reported survey data taken at a single time.

1.3 Objectives of the Study

1. To explore the prevailing levels of teacher–student interaction in secondary school Punjabi language classrooms.
2. To evaluate the academic proficiency level of the Punjabi language among secondary school students.
3. To determine the statistical relationship between teacher–student interaction and Punjabi language proficiency.
4. To analyze gender-based differences in Punjabi language proficiency among secondary school learners.
5. To compare student language achievement across varying degrees (high, moderate, low) of classroom interaction.

1.4 Hypotheses

H1: There will be a significant positive relationship between teacher–student interaction and Punjabi language proficiency.

H2: There will be a significant difference in Punjabi language proficiency between male and female students.

H3: Students in highly interactive classrooms demonstrate significantly higher language achievement than students in low-interaction classrooms.

2. Literature Review

The theoretical basis for interaction-driven language learning is very complex and intertwined with Long's (1996) Interaction Hypothesis, which claims that language acquisition takes place seamlessly as people communicate, deploying strategies to deal with the breakdowns of comprehension. This process is interactive and provides comprehensible input to the learners, language output, and immediate corrective feedback, which leads to syntactic and lexical development. From another angle, Vygotsky's (1978) sociocultural theory takes the view that learning is a social process. The Zone of Proximal Development (ZPD) is his theory that people learn best when they are challenged with activities at a level that is just outside of their independent ability to perform and are provided with scaffolding from peers and teachers. Both hypotheses were important historically, with Krashen's (1985) Input Hypothesis that the comprehensible input ($i+1$) was essential and Swain's (1985) Output Hypothesis that language must be "produced" in order for learners to process the language deeply. Hattie (2009) integrated structural educational data to determine that among the strongest influences on student success in school instruction are dialogue and structured feedback. A similar conclusion was reached by Cornelius-White (2007) in a meta-analysis finding that teacher–student relationships built on learning-centered relationships substantially improve engagement and performance. In a direct extension of this, Walsh (2011) claimed that in the classroom, discourse is not just a conduit for instruction; it is the very site of the development of language competence. Modern studies still support these dynamics of interaction. Yao & Shao (2024) showed that teachers' positive and multi-directional communication can effectively reduce foreign/second language anxiety and enhance the final result. Dialogic classroom discourse to increase syntactic complexity and voluntary participation directly from the students was proved by Ratnawati (2025). Likewise, Wang and Kang (2023) have found that teacher empathy and instructional

immediacy are crucial factors in motivating students in their language learning. Despite the change in digital environments, interaction still is the key; Liu, Thurston, and Ye (2024) have found that technology-enhanced cooperative activities promote communicative fluency, and Guo et al. (2024) have demonstrated that the use of mobile-assisted collaborative systems is effective at maximizing authentic language production via peer-to-peer communication.

2.1 Research Gap

Though world literature is rich in evidence that interaction is an essential part of SLA/FLL, regional Indian language studies have not been empirically explored, particularly in the case of the Punjabi language. English proficiency or Hindi as a second language are the two dominant themes of the existing language acquisition studies within the Indian subcontinent, with very few studies addressing the regional languages. This study directly fills this empirical void and explores how classroom interaction is related to student achievement in the context of secondary school Punjabi language education.

3. Method

3.1 Research Design

The quantitative descriptive-correlational research design was used to explore the relationship between teacher-student interaction and the acquisition of the Punjabi language.

3.2 Participants

The sample included 100 secondary school students ($N = 100$) studying in three different schools in Punjab, India, where Punjabi is a mandatory subject in the schools. The sample was balanced in terms of gender: 50 males (50%) and 50 females (50%). Considering the institutional administrative constraints, the schools and classrooms included were selected by a non-probability convenience sampling technique.

3.3 Instrument

The data were collected through a self-administered structured questionnaire developed from the well-known second language acquisition (SLA) frameworks of Ellis (2008) and Richards (2006). Three core domains of the survey were teacher-student interaction (TSI), classroom participation/engagement (LE), and outcomes of the Punjabi language (PLAO) with a five-point Likert scale (Strongly Disagree = 1; Strongly Agree = 5). The content was validated using the Content Validity Index (CVI) by language and education experts. The reliability of the instruments was determined through preliminary pilot testing with 30 learners, and the Cronbach alpha result in each subscale was found within the acceptable academic limit ($\geq .70$), indicating good internal consistency of the instruments.

3.4 Data Analysis

The quantitative data collected was cleaned and analyzed in statistical software. Explicit statistical measures were used to test the operationalized hypotheses:

- Descriptive statistics (means and standard deviations) were calculated to set up the baseline variables.
- A Pearson product-moment correlation coefficient (r) was used to evaluate the relationship between interaction and proficiency (H1).
- To test for gender-based proficiency gaps (H2), an independent-samples t-test was used.
- Observation of performance differences between low, moderate, and high interaction (H3) environments was conducted using descriptive mean comparison.

4. Results and Discussion

The quantitative results obtained from student samples (N = 100) clearly produce empirical parameters on the effect of classroom communication on regional language acquisition. Results of the statistical analyses on the core hypotheses are summarized in Table 1.

Table 1

Analysis	Variables / Groups Compared	Metric	Significance Level (p)	Outcome Summary
Pearson Correlation	Classroom Interaction x Language Proficiency	$r = .68$	$p < .001$	Strong, positive relationship; higher interaction predicts higher proficiency.
Independent t-test	Female Learners (M=3.48) vs. Male Learners (M=3.21)	$t = 2.18$	$p = .032$	Statistically significant difference; female students slightly outperform males.
Descriptive Mean	High Interaction vs. Low Interaction Classrooms	M = 3.85 vs. M = 2.91	N/A (Descriptive)	Highly interactive environments yield a 32.3% performance increase.

Table 1: Summary of Consolidated Statistical Results for Hypotheses Testing

4.1 Descriptive and Correlation Analysis (H1)

The overall descriptive statistics of the baseline data show that students' level of overall teacher-student interaction is moderate (M = 3.62, SD = 0.81) and their overall level of proficiency in the Punjabi language is intermediate (M = 3.34, SD = 0.76). In order to test Hypothesis 1, which

assumed that there was a significant positive correlation between the interaction between teacher and student and language achievement, a Pearson correlation was carried out. Results showed a moderate positive correlation between the two variables that was statistically significant ($r = .68$, $p < .001$). This empirical result provides full confirmation of H1, that is, the more structured the classroom communication, the more active feedback, and the more open dialogue, the more the students' language proficiency scores go up. This finding is consistent with Long's (1996) interaction hypothesis, which suggests that the teacher's shift from a monologic style and the creation of communicative pathways allow for students to receive dense input of comprehensible language and input of the language necessary for their adjustment, thus directly leading to faster language acquisition.

4.2 Gender Differences in Language Proficiency (H2)

For Hypothesis 2, it was hypothesized that there would be a significant difference in language proficiency among male and female students in the Punjabi language. An independent-samples t-test was used to assess this. Table 1 shows that the test showed a significant difference among the language scores depending on the gender ($t = 2.18$, $p = .032$), supporting H2. Female students achieved a higher mean proficiency score ($M = 3.48$, $SD = 0.69$) than their male peers ($M = 3.21$, $SD = 0.74$). The results are similar to the historical meta-analyses conducted by Hyde and Linn (1988) and Oxford (1994), which suggest that females' verbal task execution and integrative motivation tend to be somewhat higher in early academic years. But the mean difference is rather small, and the data suggest that structural classroom instruction and generalized interaction patterns are still more important in determining final language mastery than are the biological categories of gender.

4.3 Impact of Classroom Interaction Levels (H3)

To test Hypothesis 3, student language achievement scores were divided and compared by three different interaction levels in the classroom: high, moderate, and low. To test the hypothesis, a descriptive study was conducted, yielding a strong validation of the hypothesis: students in very interactive classrooms vastly outperformed their counterparts with a high mean achievement

score of $M = 3.85$. Students in moderately interactive settings, seated at $M = 3.40$, and the students who were in low-interaction, traditional teacher-centered settings, scored a low mean of $M = 2.91$. This is a very clear staircase effect, where baseline language performance increases by 32.3% with the transition from a low interaction environment to a high interaction environment. The result clearly supported the theories of Walsh (2011) and Ratnawati (2025), which stated that the classroom that uses a dialogic and highly communicative approach can provide psychological safety and practical space for students so that they can process, test, and internalize the mechanics of the regional language effectively.

5. Conclusion

This study shows that teacher-student interaction is an important factor in the successful learning of the Punjabi language at secondary schools. Students consistently exposed to interactive, communicative lesson forms have much higher competence in all the core aspects of the language than those who are only passively exposed to the language. In contrast to a typical classroom, which usually focuses on teacher-led content and repetitive drills on memorization, an interactive classroom setting offers a dynamic and supportive environment where learners can improve their motivation, operational confidence, and linguistic skills by engaging in a variety of creative language productions. Finally, establishing a vital dialogue between multiple voices in the classroom is a necessary condition for good regional language learning.

6. Implications

6.1 Theoretical Implications

This study provides empirical validation for Long's Interaction Hypothesis and Vygotsky's Sociocultural Theory within the context of regional Indian languages. The results confirm that acquiring a native or regional language within an academic setting remains a socially mediated process. Meaningful teacher-student communication serves as the primary mechanism for transforming raw language input into functional communicative competence.

6.2 Practical Implications for Teachers

Data show the desperate need to move away from passive lecture approach. Punjabi language teachers need to proactively build interactive classrooms by implementing structured group discussions, situational role plays, question sessions with students and timely formative assessment feedback loops. These changes help alleviate language anxiety and help to build student confidence.

6.3 Educational and Curriculum Implications

The teacher-training institutes and school management should upgrade the professional training programs for teachers to incorporate the CLT approach into the curriculum. The curriculum at schools needs to be reformed such that it no longer revolves around textual memorization but instead focuses on communicative language tasks.

6.4 Policy Implications

The policy makers in education need to encourage reforms in regional languages instruction through funding for the development of interactive materials, digital language programs, workshops for teachers, and many more such innovations. Such measures would elevate the importance and significance of regional languages instruction in today's modern educational institution.

7. Limitations

1.1 Limitations of the Study

- **Sample Size:** The size of samples at three localized schools is 100 students which limits immediate geographic generalizability of findings across the whole of Punjab.
- **Sampling Bias:** Non-probability convenience sampling may cause sampling bias, which diminishes the representativeness of the sample.
- **Excluded Variables:** The study was exclusively classroom-centered and excluded other variables such as socioeconomic status, parental support, home dialect variations, etc.

- **Cross-Sectional Nature:** Since the data were gathered all at once, neither developmental changes in language learning nor conclusive causal inferences can be made.

7.2 Recommendations for Future Research

- **Pedagogical Shift:** In the current curriculum, Punjabi language instructors should implement communicative exercises where students take center stage, such as peer problem-solving and conversational interviews.
- **Professional Workshops:** School boards ought to provide frequent professional development opportunities aimed at revitalizing teachers' pedagogical interaction and classroom discourse management abilities.
- **Curriculum Overhaul:** Instead of employing reading comprehension questions, textbooks should include interactive, hands-on tasks at the end of each chapter.
- **Targeted Feedback:** To help students keep their motivation to participate while consolidating grammatical accuracy, teachers should give timely, constructive, and balanced feedback.
- **Technological Integration:** Schools should make use of interactive audio-visual equipment and digital language learning apps and multimedia materials to enhance students' interest in regional language learning.
- **Expanded Research Scope:** Further studies with larger and randomly selected samples as well as longitudinal designs are suggested in order to explore interaction driven learning in learning other regional languages thus contributing to the broader understanding of multilingual education in India.

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