

**SUBJECT-VERB AGREEMENT IN TYPICALLY DEVELOPING HINDI-SPEAKING CHILDREN****Annanya Singh<sup>1</sup>, Abhishek BP<sup>2</sup> and Brajesh Priyadarshi<sup>3</sup>**<sup>1</sup>Under graduate student, AIISH<sup>2</sup>Assistant Professor in Language Pathology, Centre of SLS, AIISH Mysuru<sup>3</sup>Associate Professor in Linguistics, Department of SLP, AIISH Mysuru<https://doi.org/10.59009/ijllc.2026.0180>*Received Date: 05 December 2025 / Published Date: 14 January 2026***ABSTRACT**

This study investigates the developmental trajectory of subject-verb agreement comprehension in typically developing Hindi-speaking children across Grades 1 to 5. Given Hindi's morphologically rich verb agreement system, which encodes person, number, and gender, the study aimed to examine how children acquire sensitivity to these grammatical features with age and educational progression. Using a cross-sectional design, seventy-five monolingual children from semi-urban government schools participated in an auditory grammaticality judgment task consisting of fifteen sentences—five grammatically correct and ten with systematic agreement violations. Each child's accuracy was recorded to assess morphosyntactic proficiency. Results revealed a steady increase in performance, with mean scores rising from 8.0 in Grade 1 to 13.16 in Grade 5. Statistical analysis using the Kruskal-Wallis Test ( $\chi^2 = 2.13$ ,  $p < 0.05$ ) and Mann-Whitney U Test ( $Z = 1.96-2.84$ ,  $p < 0.05$ ) confirmed significant differences across grades, indicating a strong correlation between age, academic level, and agreement mastery. Younger children, particularly in Grades 1 and 2, exhibited difficulties with gender agreement, reflecting higher processing demands in morphologically complex constructions. The findings underscore that grammatical agreement competence in Hindi develops progressively through cognitive maturation, increased linguistic exposure, and structured grammar instruction. The study contributes to understanding Hindi morphosyntax acquisition and informs pedagogical and clinical practices for supporting language development in semi-urban populations.

**Keywords:** Part of speech, grammatical class, nouns, verbs, association.**1. INTRODUCTION**

Subject-verb agreement remains a cornerstone of grammatical development, necessitating that the verb aligns with the subject in terms of person and number—and in Hindi, gender as well. Hindi is remarkable for its sophisticated verb agreement system, where verbs inflect according to person, number, and gender, as well as syntactic context and case marking. This morphological complexity distinguishes Hindi from languages such as English, in which subject-verb agreement is largely limited to number and person, thus presenting unique learning challenges to children.

Empirical research illustrates the intricacy of acquiring verb agreement in Hindi. Kidwai et al. (2015) found that Hindi-speaking children, even from as young as 3 years and 5 months, display sensitivity to agreement patterns, specifically in the context of case and aspectual morphology. Their participants understood and produced agreement forms, but agreement with

the correct argument—especially when overt case marking was present—was not consistently accurate until later ages. Pareek, Kidwai, and Eisenbeiss (2023) further demonstrated that both children and adults learn agreement and ergative marking largely through exposure to input and statistical prediction, with children relying both on verb-level semantics and clause-level intentionality when acquiring the ergative ‘ne’ marker. These findings indicate early awareness of agreement rules but also highlight persistent error patterns, especially in progressive and perfective aspects, that decline gradually throughout childhood. Bhatia and Dillon (2022) also showed, through psycholinguistic and neuroimaging approaches, that Hindi speakers anticipate agreement features before verb processing, revealing unique cognitive strategies compared to speakers of less morphologically complex languages.

Despite these advances, the majority of language acquisition research has focused on Indo-European languages like English, where verb inflection is far less complex. The study of Nicole et al. mentions that the nature of computation of subject-verb agreement in production is ‘forward specifying’ and in comprehension is ‘backward checking’, requiring two systems in English. Only recently have studies begun to address Hindi’s exceptional case and agreement patterns using experimental and computational methods. Consequently, the developmental pathway of subject-verb agreement in Hindi-speaking children is underexplored particularly regarding how number, gender, person, and case interact during early academic years. This study aims to fill the gaps of previous studies and evaluate the semi-urban population of native Hindi speakers.

The primary objective of this study is to systematically examine the developmental trajectory of subject-verb agreement comprehension in native Hindi-speaking children. Specifically, the research seeks to investigate how children's sensitivity to grammatical correctness in subject-verb agreement evolves across successive academic stages, spanning from Grade 1 through Grade 5. Employing an auditory grammaticality judgment paradigm, this study aims to elucidate patterns in the acquisition process, including the identification of prevalent error types and developmental milestones indicative of syntactic proficiency. By focusing on morphosyntactic judgment of subject-verb agreement, the investigation offers critical insights into the cognitive and linguistic mechanisms underlying agreement processing in a morphologically rich language like Hindi. This research is particularly significant for advancing theoretical models of language acquisition within typologically inflected languages, which are essential for understanding morphosyntactic development. It also holds practical implications for pedagogical strategies and clinical assessments designed to support language development in young learners.

### **Need for the study**

Hindi, as a morphologically rich language, presents unique challenges in the area of subject-verb agreement. Unlike English, which primarily marks subject-verb agreement for number and person, Hindi also includes gender as a central grammatical marker. This added layer of complexity can lead to specific difficulties for children as they acquire grammatical rules. Previous studies (such as Chaudhary, 2018) have noted that Hindi speakers often face challenges in subject-verb agreement when learning English due to differences in inflectional patterns between the two languages. Therefore, it is imperative to understand how subject-verb agreement develops in Hindi itself before assessing its cross-linguistic impact. Understanding the natural progression of this syntactic rule in typically developing children will not only enhance theoretical knowledge of language development but also aid in the early identification

of language disorders and the design of effective language interventions in educational settings. Furthermore, research on subject-verb agreement in Indian languages remains limited, with much of the extant literature predominantly focusing on urban populations. In contrast, the present study deliberately targets children from semi-urban backgrounds, thereby addressing an underrepresented demographic and contributing to a more comprehensive understanding of subject-verb agreement development across diverse sociolinguistic settings.

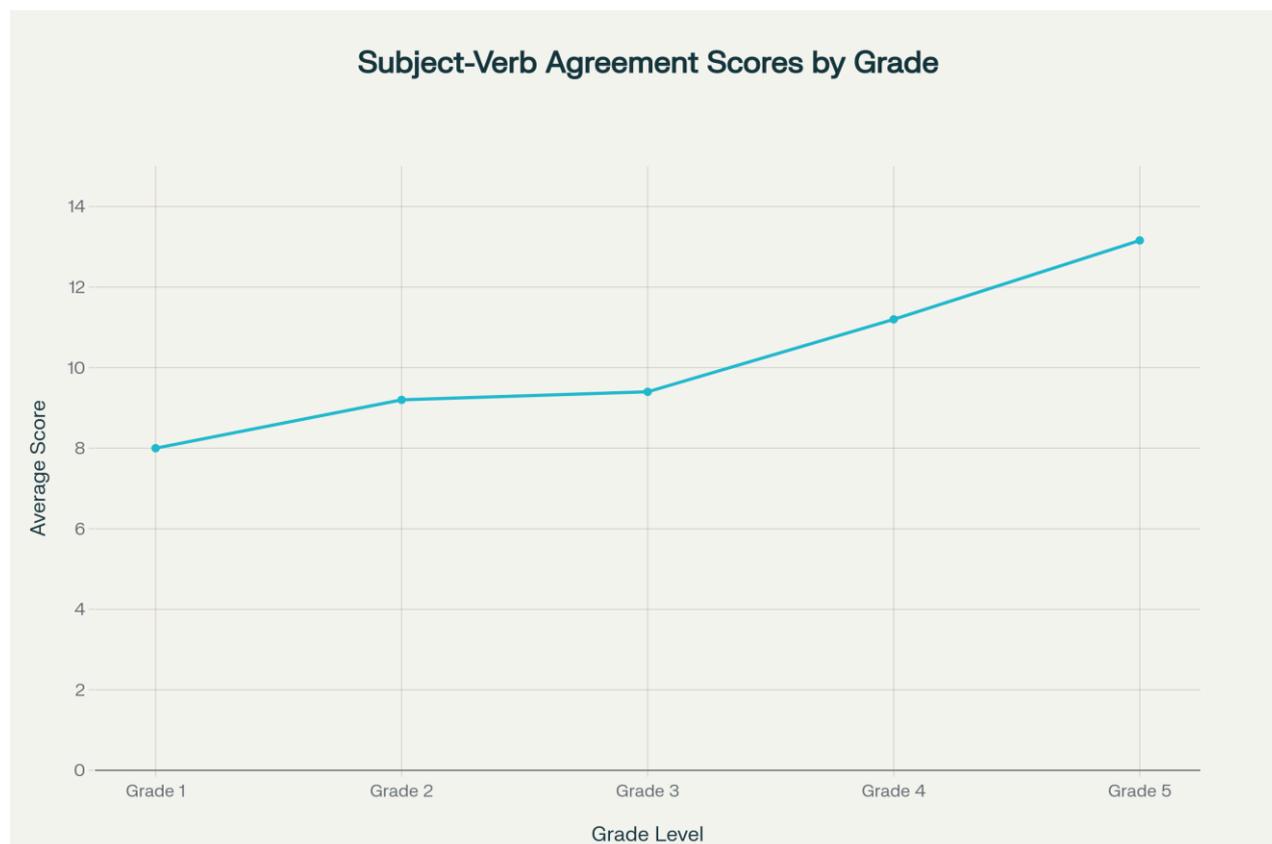
## 2. METHODOLOGY

The present study employed a cross-sectional research design to systematically evaluate the grammaticality judgment abilities related to subject-verb agreement among typically developing children across five academic grade levels. The participant cohort comprised seventy-five monolingual Hindi-speaking children, with equitable representation from Grade 1 through Grade 5 that is, fifteen children per grade, all enrolled in a government school setting of a semi-urban area. Inclusion criteria ensured that participants had no reported cognitive, neurological, or sensory impairments, thereby providing a sample reflective of normative language development.

The stimulus set consisted of fifteen auditorily presented sentences, developed through a comprehensive review of existing literature and vetted by three Hindi language experts to ensure linguistic validity and reliability. This stimulus set comprised five grammatically correct sentences and ten sentences containing systematic subject-verb agreement violations, focusing on number, person, and gender concordance. The use of auditory stimuli was intended to simulate natural language processing conditions and to assess the participants' morphosyntactic judgment in a controlled yet ecologically valid manner. Participants were tasked with a binary grammaticality judgment procedure, wherein they listened to each sentence and judged its grammatical correctness. Each response was dichotomously scored, assigning a value of one to correct judgments (accurate identification of grammatical or ungrammatical sentences) and zero to erroneous responses. The aggregate score, ranging from 0 to 15, served as the quantitative measure of each child's subject-verb agreement proficiency. All testing sessions were conducted individually within a distraction-free environment, with standardized instructions delivered verbally and repeated up to maximum of two or three times to ensure comprehension prior to task commencement.

## 3. RESULTS

The data analysis revealed a clear upward trend in performance across grade levels. Children in Grade 1 achieved an average score of 8.0, while those in Grade 2 and Grade 3 scored 9.2 and 9.4, respectively. A marked improvement was observed in Grades 4 and 5, with average scores increasing to 11.2 and 13.16, respectively. These results indicate a steady developmental progression in the acquisition of subject-verb agreement skills.



**Figure1:** Average subject-verb agreement proficiency scores across grade levels in Hindi-speaking children.

Average scores increased steadily from 8.0 in Grade 1 to 13.16 in Grade 5, indicating substantial developmental gains in subject-verb agreement comprehension as children advanced academically. The results of both the Kruskal-Wallis Test ( $\chi^2 = 2.13$ ,  $p < 0.05$ ) and Mann-Whitney U Test ( $Z = 1.96-2.84$ ,  $p < 0.05$ ) establish that differences in performance between consecutive grades are statistically significant. The upward trajectory in scores underscores that maturational development and educational exposure are crucial factors influencing mastery of grammatical agreement in Hindi.

Figure 1 visually encapsulates this progression, illustrating a marked increase in average scores with each successive grade level, particularly after Grade 3. This pattern echoes the natural developmental course wherein morphosyntactic skills, including complex agreement rules, consolidate with age and structured instruction.

### 3. DISCUSSION

The findings of this study indicate a significant and positive correlation between age (and corresponding grade level) and the mastery of subject-verb agreement in Hindi. As children progress through successive educational tiers and gain increased exposure to formal instruction and linguistic input, their grammatical comprehension, particularly in subject-verb agreement, becomes progressively more refined and accurate. The data reveal that younger children,

especially those in Grades 1 and 2, experience considerable challenges in accurately judging the grammaticality of subject-verb agreement constructions, with gender agreement emerging as the most problematic aspect. This finding corroborates prior research on morphologically rich languages, where gender agreement has consistently been identified as a complex feature for early language learners.

The difficulty observed among younger participants may be attributed to the heightened cognitive demands required to concurrently process multiple agreement features, including number, person, and gender. At this early stage, children are still consolidating their understanding of Hindi's intricate morphological rules, and the integration of gender as a grammatical category amplifies the processing load. In contrast, older children exhibit marked and exponential improvement in their grammatical judgment capabilities, likely attributable to maturational cognitive developments, cumulative language exposure, and systematic grammar education. These developmental trajectories underscore the gradual and staged nature of subject-verb agreement acquisition, emphasizing its sensitivity to both linguistic input quality and cognitive maturation.

The study demonstrated a statistically significant progression in subject-verb agreement proficiency among typically developing Hindi-speaking children across Grades 1 to 5, with older children displaying notably higher accuracy in grammaticality judgments compared to younger peers.

These findings reaffirm not only a positive correlation between academic progression and subject-verb agreement mastery but also highlight critical cognitive transitions occurring during primary school years. Specifically, the initial lower performance in Grades 1 and 2 signals significant challenges for younger children, especially regarding gender agreement—a facet consistently identified as complex within morphologically rich languages. The need to simultaneously process person, number, and gender agreement likely contributes to early difficulties, requiring children to harness intricate morphological mapping strategies.

As children move into higher grades, the data reveal broad improvements in grammatical judgment, suggesting that cumulative exposure to language input, increased metalinguistic awareness, and formal instruction jointly drive the refinement of subject-verb agreement skills. This developmental surge accentuates the importance of targeted language education and typology-sensitive pedagogical models during the formative years.

Moreover, the identification of error patterns and gradual reduction of mistakes in later grades offers essential insights for speech-language pathologists and educators in refining assessment tools and intervention strategies. The results provide a compelling argument for early and sustained language enrichment efforts, especially for populations in semi-urban settings where linguistic diversity may impact syntactic development.

**Conclusion:** The study conclusively demonstrates that subject-verb agreement proficiency in typically developing Hindi-speaking children shows a significant and steady improvement from Grade 1 through Grade 5. This developmental trajectory highlights the combined influence of cognitive maturation, sustained linguistic exposure, and formal education on mastering the morpho-syntactic complexities of Hindi, particularly in handling number, person, and gender agreement. The pronounced challenges faced by younger children, especially with gender agreement, emphasize the need for focused pedagogical interventions during early schooling. By addressing these developmental patterns in a semi-urban

population, the study fills a critical gap in language acquisition research and offers valuable implications for educational practices and clinical assessments aimed at supporting normative language growth and early identification of language disorders in Hindi-speaking children.

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