



Story Grammar as Pedagogic Discourse: Enhancing Narrative Comprehension among ESL Learners in West Bengal's State-Run Classrooms

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Abstract

This exploratory study investigates the effectiveness of story grammar instruction in enhancing narrative text comprehension among upper primary English as a Second Language (ESL) learners in a Bengali-medium boys' school in West Bengal, India. Drawing on Mandler's framework of story grammar and Cooper's instructional model, the study implemented an 11-day intervention with 15 Class V students divided into three groups: experimental, listening, and control. A quasi-experimental design employing pre-test, post-test, and maintenance test phases was used to measure changes in reading comprehension. The experimental group received explicit instruction through story mapping and visual aids, while the listening group engaged in passive narrative exposure. Statistical analyses revealed that the experimental group showed significant improvement in post-test and retention scores ($p < 0.05$), with a strong correlation between initial comprehension and maintenance. The findings suggest that structured story grammar instruction can support ESL learners in recognizing narrative elements and improving overall comprehension, offering valuable implications for curriculum design and pedagogical practice in low-resource educational contexts.



Article info

Received 16 February 2025
Accepted 28 March 2025
Published 22 April 2025

Keywords: *ESL learners, Story grammar, Reading comprehension, Narrative texts, Story mapping, Primary education.*

1. Introduction

Reading comprehension in second language (L2) contexts is increasingly recognized as an interactive and multi-layered process where readers construct meaning by drawing on linguistic cues, background knowledge, and discourse-level understanding (Grabe & Stoller, 2019; Koda, 2005). Over the past three decades, substantial attention has been paid to identifying the cognitive and metacognitive strategies that contribute to comprehension, including skimming, scanning, inferencing, summarising, and visualisation (Anderson, 2003). These strategies form the foundation of effective L2 reading pedagogy, particularly when applied to genres that demand high inferential processing, such as narrative texts.

Among various genres, narrative texts pose distinct challenges to L2 learners due to their reliance on implicit structure and episodic coherence (Xu & Meng, 2024). Comprehension of such texts requires not only surface-level decoding but also an understanding of the underlying story grammar—i.e., the schematic representation of setting, characters, initiating events, goals, attempts, and resolutions (Mandler, 2014). While native speakers may internalize these structures through repeated exposure to oral and written narratives, L2

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Cite this Article: Mukherjee, M. (2025). Story Grammar as Pedagogic Discourse: Enhancing Narrative Comprehension among ESL Learners in West Bengal's State-Run Classrooms. *Journal of Discourse Review*, 1(1), 96-108.

learners, especially those with limited exposure to target language discourse outside the classroom, often struggle to recognise and apply such organizational frameworks effectively (Ma, Ismail, Noordin, & Razali, 2024).

A growing body of research suggests that explicit instruction in story grammar can support L2 learners in constructing coherent mental representations of narrative texts (Miller, 2014; Fichman, Armon-Lotem, Walters, & Altman, 2021). Studies show that when learners are guided to identify structural components through tools like story mapping or guided questioning, their ability to recall, summarise, and infer improves significantly (Oliver, 2009; Stagliano & Boon, 2009). These findings have direct implications for educational settings where English is taught as a second or foreign language under constrained resources and limited print exposure.

This issue is particularly salient in vernacular-medium classrooms in India, where English functions as an additional language and students' interaction with English texts outside formal instruction is minimal (Ramanathan, 2005). In such settings, reading often remains a mechanical activity focused on pronunciation or literal meaning, with little emphasis on comprehension or narrative understanding. Furthermore, textbooks tend to dominate classroom materials, offering limited scope for pedagogical innovation or engagement with diverse textual genres (Hyland, 2007). As a result, students are seldom taught how narratives are constructed or how stories function as patterned discourses.

This study seeks to address this gap by evaluating the potential of story grammar instruction to enhance the reading comprehension of Class V ESL learners in a Bengali-medium boys' school under the West Bengal Board of Secondary Education. It builds upon the hypothesis that students, when systematically taught to identify narrative components through visual aids and structured questioning, can improve their ability to comprehend, interpret, and retain story-based information. By using story grammar not merely as a reading strategy but as a pedagogical framework for engaging with texts, the study aims to reframe reading comprehension as a discourse-oriented activity rather than a rote linguistic task.

The significance of this research lies in its localized focus and its practical applicability to under-resourced educational contexts. Unlike earlier studies that used adapted or specially designed texts, this study draws on unabridged children's literature to assess whether learners can transfer their understanding of story structure to unfamiliar and authentic reading materials. Additionally, the study introduces a listening group to examine whether passive exposure to structured narratives can foster schematic development without direct instruction—an area that remains relatively under-explored in Indian L2 contexts.

The core research questions guiding this inquiry are: (1) To what extent does story grammar instruction improve narrative comprehension among upper primary ESL learners? (2) Can students apply story structure knowledge to unfamiliar texts outside the prescribed curriculum? and (3) What role does passive listening play in supporting story schema formation?

By addressing these questions, this study contributes to the ongoing discourse on genre-based reading instruction and its implications for curriculum development in multilingual, resource-constrained classrooms. In particular, it advocates for a shift from text-bound comprehension drills to strategy-based, discourse-informed pedagogy that empowers students to engage with texts meaningfully and independently.

2. Theoretical Framework: Pedagogic Discourse, Story Grammar, and Reader Positioning

Understanding narrative comprehension in ESL contexts requires examining the intersection of pedagogic discourse, story grammar frameworks, and reader positioning. These interrelated components contribute to how learners process and internalize narrative texts, especially in environments where English functions as a second or foreign language. In state-run classrooms across West Bengal, where ESL learners often face challenges related to limited exposure, structural models like story grammar offer a viable means to support reading development and comprehension outcomes.

Story grammar theory, as articulated by Mandler and Johnson (1977) and further elaborated by Stein and Glenn (1979), offers a foundational blueprint for narrative comprehension. The model identifies critical components such as setting, initiating events, internal responses, goals, attempts, outcomes, and reactions. These elements serve as structural cues that support readers in organizing and retrieving narrative content. When learners are familiar with this underlying schema, their ability to understand, retain, and reflect on narrative information improves significantly (Mandler & Johnson, 1977; Stein & Glenn, 1979). In ESL settings, this structure functions as a cognitive aid, allowing learners to process unfamiliar language within a predictable and coherent format.

Schema theory, which emphasizes the activation of prior knowledge during reading, further reinforces the relevance of story grammar in ESL pedagogy. According to Anderson (2003), readers interpret texts by aligning new information with pre-existing cognitive structures, or schemata. This alignment is particularly significant for

ESL learners, as it allows them to bridge linguistic gaps using familiar conceptual frameworks. Additionally, the role of metacognitive strategies—planning, monitoring, and evaluating comprehension—has been shown to enhance learners' capacity to regulate their reading processes. The proficient readers employ such strategies to maintain comprehension, which is especially valuable for ESL learners working with unfamiliar vocabulary and grammatical structures.

A conceptual distinction exists between story schema and story grammar, which has important implications for instruction. While story schema refers to generalized mental representations of how narratives function, story grammar offers a formalized and explicit model of narrative structure. Graesser et al. (1991) note that this distinction helps educators design targeted instruction that supports both the cognitive processing and analytical understanding of narrative texts. By explicitly teaching story grammar, educators can provide students with concrete tools to deconstruct and engage with texts more effectively.

The practical application of story grammar instruction is well illustrated by Cooper's (1986) model. This approach integrates visual aids such as story maps and charts to help learners identify and organize narrative components. These scaffolding tools are particularly helpful in guiding ESL learners through complex texts, allowing them to recognize patterns and connections among various narrative elements. Cooper's framework aligns with the principles of explicit instruction, which begins with teacher modelling, proceeds through guided practice, and culminates in independent student application. Evidence suggests that the implementation of this model improves students' ability to analyse narrative structure and, consequently, enhances comprehension.

Integrating story grammar into pedagogic discourse involves systematic planning at the instructional level. Teachers must design lessons that prioritize the identification and analysis of narrative elements using appropriate pedagogical tools, including graphic organizers and structured questioning. Professional development initiatives can equip educators with the skills necessary to implement story grammar strategies effectively in multilingual and under-resourced classrooms. Furthermore, assessments should be directly aligned with instructional objectives, focusing not only on students' general understanding but also on their ability to recognize and articulate the structural features of narratives.

Overall, positioning story grammar as a core component of reading instruction offers ESL learners structured pathways to engage with texts. It allows educators to move beyond surface-level comprehension, enabling learners to develop both linguistic proficiency and critical reading skills through explicit, scaffolded, and contextually grounded pedagogy.

3. Literature Review

Narrative comprehension has been widely acknowledged as a complex cognitive process involving the construction of a mental framework, or *story schema*, which enables readers to organize and interpret narrative content effectively. Mandler and Johnson (1977) first proposed this concept as an internalized mental representation encompassing the typical components and sequencing of stories. This schema allows readers to predict, recall, and infer information during reading. Story grammar, developed in parallel to this concept, serves as a formalized structure encapsulating the essential properties and functions of these story elements (Graesser, Golding, & Long, 1991). Story grammar models provide a descriptive account of how readers, particularly children, mentally map narratives, and have become a valuable pedagogical and research tool in literacy education. Several theoretical models have guided the development of story grammar research. Notable among them are the models proposed by Mandler and Johnson (1977), Rumelhart (1975), Stein and Glenn (1979), each offering different but complementary insights into narrative processing. These models typically include core components such as setting, initiating event, internal response, goal, attempt, consequence, and reaction. Importantly, these elements are not merely descriptive but serve a predictive function in reading comprehension, as demonstrated in empirical studies. Fitzgerald (1989), for example, has shown that instruction focusing on these structural features significantly enhances students' ability to recall and understand narrative texts. Graesser et al. (1991) similarly argue that narrative understanding is optimized when readers can identify and mentally simulate these core components.

Developmental studies highlight that children as young as five years old begin to exhibit an emerging awareness of narrative structures. Stein and Glenn (1979) observed that young learners can identify basic components such as characters and settings, even if their understanding of plot causality and sequencing is limited. Fitzgerald (1989) further elaborates on this developmental trajectory, emphasizing that narrative comprehension becomes more detailed and coherent during the intermediate-grade years. This finding is critical, as it suggests

that story grammar instruction is not only developmentally appropriate but may also be particularly beneficial when aligned with the cognitive growth stages of learners.

Empirical studies investigating the instructional value of story grammar in second language contexts have yielded encouraging results. Amer (1992), in a study involving sixth-grade EFL learners, found that explicit instruction in story grammar significantly improved participants' comprehension performance. The intervention equipped learners with tools to decode the structural organization of texts, thereby enabling deeper understanding and recall. Beyond its instructional value, story grammar also serves as a functional framework for assessment. Marshall (1978) proposed that comprehension evaluation can be anchored in the recognition and reproduction of story grammar components. Guthrie (1977) went a step further, recommending that comprehension questions rooted in story grammar are likely to yield more reliable assessments of understanding than traditional recall-based questions. This perspective has been reinforced by later scholars, such as Tierney et al. (1990) and Wilson and Grambell (1991), who advocate for using story grammar structures to guide both teaching and evaluation. These scholars argue that aligning instructional and assessment practices with the cognitive architecture of narrative comprehension enhances learning outcomes.

Instructional strategies for teaching story grammar have varied in approach, ranging from explicit, teacher-directed instruction to more informal, student-centered activities. Nevertheless, the benefits of story grammar-based teaching methods have been consistently reported across contexts. Marshall (1983) has noted the positive influence of structured story grammar instruction on students' ability to analyse and interpret texts. These studies point to improvements not only in reading comprehension but also in related skills such as writing and oral retelling. Rand (1984), for instance, found that students taught using story schema frameworks demonstrated enhanced narrative production capabilities, suggesting transfer effects across literacy domains.

Further, the integration of story grammar instruction has shown particular promise in supporting learners with varying proficiency levels. Fitzgerald and Spiegel (1983) and Hartman (1986) highlight the effectiveness of such instruction in heterogeneous classrooms, where learners often display wide-ranging reading abilities. Fitzgerald and Teasley (1986) report gains in writing proficiency when story grammar is employed as a scaffold for narrative composition, while Gambrell and Chasen (1991) observe its benefits for below-average readers. These studies collectively focus the adaptability of story grammar instruction in differentiated classroom settings.

4. Methodology

4.1. Research Design

This study employed a quantitative experimental design to investigate the efficacy of explicit story grammar instruction on narrative text comprehension among Class V ESL students. A quasi-experimental design incorporating pre-test, post-test, and delayed post-test (maintenance test) assessments was adopted to systematically examine the intervention's effectiveness over time. The research involved three distinct participant groups: an experimental group receiving targeted story grammar instruction, a control group undergoing standard curriculum instruction, and a listening group engaging with auditory narrative input.

4.2. Participants

Participants were 15 ESL students from Class V at Sri Ramkrishna Sikshalaya, a Bengali-medium boys' school affiliated with the West Bengal Board of Secondary Education (WBSE) in Howrah, West Bengal. Utilizing purposive random sampling, the participants were stratified into three equal groups ($n=5$ each), ensuring representation across different proficiency levels based on initial pre-test scores (Table 1). Ethical guidelines were rigorously followed, with informed consent obtained from participants and guardians.

Table-1:

Participant Distribution and Intervention Details

Groups	Participants (n)	Pre-test Score Range	Intervention	Post-Test	Maintenance Test
Experimental Group	5	7	Story Grammar Instruction	Yes	Yes
Control Group	5	9–11	Standard Curriculum	Yes	No

Listening Group	5	7.5–8	Auditory narrative exposure	Yes	No
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4.3. Instructional Intervention

The experimental group underwent explicit story grammar instruction over eight sessions, each lasting approximately 50–60 minutes. Instruction emphasized narrative components—setting, characters, initiating events, internal responses, attempts, and resolutions—using structured strategies, including story mapping and visual aids. Participants practiced identifying narrative structures, using guided examples and independent story retellings, to reinforce comprehension and recall skills. The listening group simultaneously engaged in passive auditory exposure to the same narratives, following along with printed texts, but received no direct story grammar instruction. The control group continued with standard curricular activities without additional interventions.

4.4. Instructional Materials

Narratives selected for pre-test, intervention, post-test, and maintenance test were carefully chosen from Story Weaver (Levels 3 and 4) and Longman Impressions (Grade 2), reflecting progressive complexity aligned with the students' cognitive and linguistic capacities. Text selection criteria included length, sentence complexity, thematic relevance, and age-appropriateness, ensuring balanced cognitive demand and accessibility for ESL learners.

Table-2:

Selected Narratives for Instruction and Assessment

Phase	Narrative Title	Word Count
Pre-Test	The Weightlifting Princess	446
Treatment Phase	How the Camel Got His Hump	365
Treatment Phase	The Greedy Baker	325
Treatment Phase	The Ugly Duckling	333
Treatment Phase	How the Sun Was Rescued	479
Post-Test	Stage Fright	530
Maintenance Test	Scavenger Hunt	725

4.5. Assessment Instruments

Assessment instruments were designed to comprehensively evaluate students' narrative comprehension, focusing on both literal and inferential aspects. Each test comprised two sections:

1. Story Grammar Questions (10 marks): Five questions assessing students' ability to identify and articulate narrative components.
2. Sentence Sequencing Task (5 marks): Ten jumbled sentences requiring correct sequential arrangement to assess textual understanding and recall.

4.6. Procedures

Data collection was conducted over an 11-day period, strategically scheduled to accommodate school examinations and holidays. Initially, participants' baseline comprehension levels were established via the pre-test. Subsequently, the experimental group received structured story grammar instruction, while the listening and control groups maintained respective interventions as described. Post-test assessments were administered immediately after the intervention phase to evaluate immediate comprehension gains. A maintenance test, administered exclusively to the experimental group one week later, assessed the retention of comprehension skills.

4.7. Validity and Reliability

To ensure methodological rigor, the instructional framework and assessment tools underwent validation by three independent expert reviewers, including one academic supervisor and two experienced ESL educators. Their feedback confirmed the appropriateness and clarity of instructional materials and assessment items, with minor adjustments incorporated to enhance reliability.

4.8. Data Analysis

Collected data were analyzed using descriptive and inferential statistics. Paired and independent sample t-tests were employed to compare pre-test, post-test, and maintenance test scores among the three groups, enabling examination of statistical significance ($p < .05$). This quantitative approach facilitated a robust investigation into the effectiveness and sustained impact of story grammar instruction on ESL students' narrative comprehension.

5. Analysis

This section synthesizes quantitative outcomes and qualitative interpretations from the intervention, drawing on empirical data from the pre-test, post-test, and maintenance test phases. The aim is to critically evaluate the impact of story grammar instruction on ESL learners' narrative comprehension across experimental, listening, and control groups.

5.1 Quantitative Analysis: Measuring Change in Comprehension

The intervention was assessed through paired comparisons across three groups ($n=5$ each), utilizing a full score of 15 marks per assessment. The three-stage testing process (pre-test, post-test, and maintenance test) allowed for the observation of both immediate and sustained gains in narrative comprehension.

5.1.1 Experimental Group: Substantial Improvement with Explicit Instruction

The performance data from the experimental group, comprising five Class V ESL learners, provides compelling evidence of the effectiveness of explicit story grammar instruction in enhancing narrative comprehension. The intervention consisted of structured lessons focused on identifying narrative components using story mapping, guided questioning, and visual scaffolds. This section provides a statistical and interpretative analysis of the students' performance across three testing phases: pre-test, post-test, and maintenance test.

The experimental group's mean pre-test score was 7.20 ($SD = 0.27$), indicating a narrow range of initial comprehension across participants. Following the 8-session intervention, the post-test mean increased to 10.60 ($SD = 3.38$). This substantial improvement, confirmed through a paired-samples t-test, produced a p-value of 0.04, indicating that the improvement was statistically significant at the 0.05 level. Additionally, the maintenance test, conducted one-week post-intervention, recorded a further increase in mean score to 11.25 ($SD = 1.22$). The corresponding p-value of 0.001 between pre- and maintenance test scores highlights the strength of the retention effect.

The increase in standard deviation from pre-test ($SD = 0.27$) to post-test ($SD = 3.38$) is notable. It indicates a wider range of post-intervention outcomes, suggesting differentiated learner uptake. While some students scored near-perfect marks (e.g., Student 1 improved from 7.5 to 15.0), others (e.g., Student 3) demonstrated less immediate gain but caught up in the maintenance phase. This variation reflects diverse learner readiness and learning preferences, reinforcing the need for differentiated instruction strategies.

Table-3:

Statistical Summary

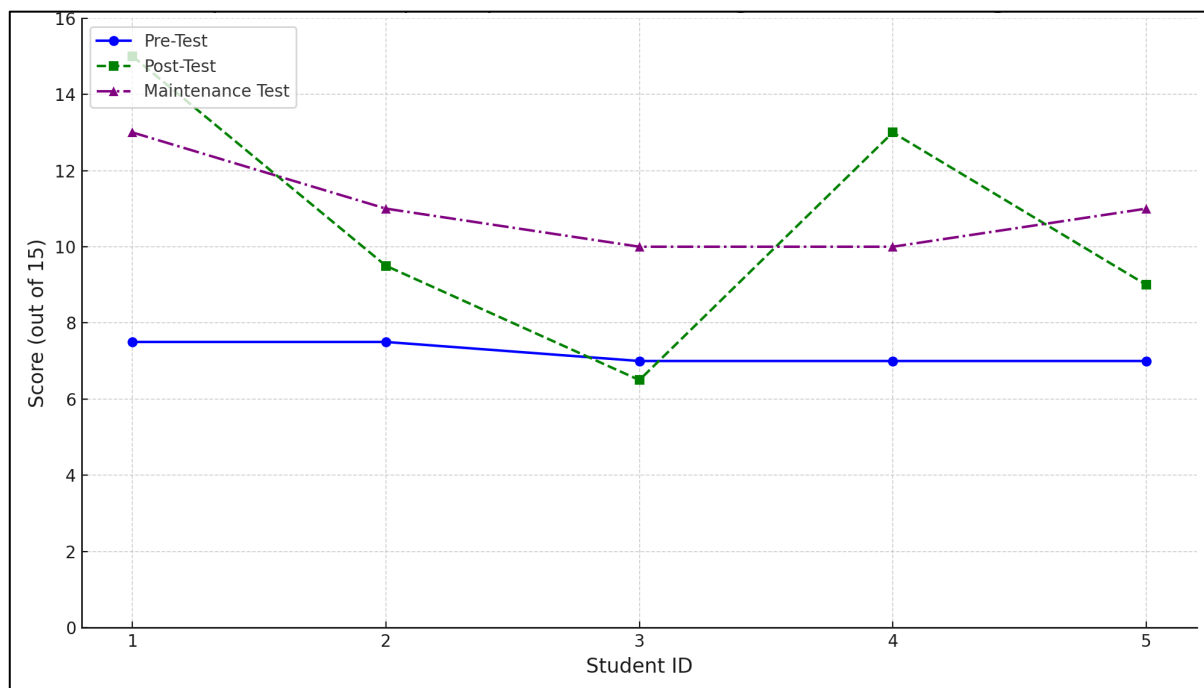
Test Phase	Mean Score	Standard Deviation	p-value
Pre-Test	7.20	0.27	–
Post-Test	10.60	3.38	0.04
Maintenance Test	11.25	1.22	0.001

The statistical data point to several pedagogic insights. Firstly, the gains reflect the benefits of explicit instruction rooted in story grammar theory (Mandler & Johnson, 1977; Stein & Glenn, 1979). By teaching learners to identify setting, initiating events, goals, and resolutions using structured visual aids, the instruction facilitated mental schema construction, which enhances recall and inferencing. These findings echo Fitzgerald's (1989) assertion that genre-based scaffolds can significantly improve reading comprehension outcomes, especially in younger learners. Secondly, the performance in the maintenance test—administered one week after instruction—demonstrates the enduring nature of the acquired comprehension skills. Notably, all five students scored above their respective pre-test scores in this delayed assessment, supporting the claim that story grammar strategies promote durable learning. Thirdly, the fluctuation in performance across individuals highlights the importance of combining explicit instruction with reflective pedagogic flexibility. Students like Participant 3, who scored lower in the post-test (6.5) but higher in the maintenance test (10.0), suggest that delayed internalization is possible when instructional content is cognitively scaffolded.

Figure-1:

Experimental Group: Comprehension Score Progression Across Testing Phases.

1



This line graph illustrates the individual performance trajectories of five ESL learners who received explicit story grammar instruction. All students demonstrated improvement from pre-test to post-test, with further consolidation evident in the maintenance test. The variability in post-test scores indicates differential uptake of instruction, while the maintenance scores suggest sustained comprehension gains.

The findings support cognitive schema theory (Anderson, 2003), wherein new information is processed effectively when learners can relate it to familiar mental structures. Story grammar instruction functioned as an organizing framework that helped students align textual cues with schematic expectations. Moreover, the application of Cooper's (1986) instructional model, emphasizing teacher modelling and guided practice, aligns well with this cognitive model and explains the upward trajectory in student performance.

5.1.2 Listening Group: Passive Exposure, Moderate Gains

The performance of the listening group offers meaningful insight into the role of passive auditory exposure in developing narrative comprehension among young ESL learners. This group of five students was exposed to the same narrative texts used in the experimental group but without explicit instruction or guided practice. Instead, they listened to the stories being read aloud while following along with printed versions. This approach, while simple, served as an indirect method of engaging learners with narrative structures.

The quantitative data from this group demonstrate statistically significant gains. The mean pre-test score was 7.60 with a standard deviation (SD) of 0.42, suggesting relatively uniform baseline comprehension. Following the auditory sessions, the post-test mean rose to 10.00 (SD = 1.06). A paired-sample t-test indicated a p-value of 0.003, confirming that the improvement was statistically significant at the 0.01 level. The direction and strength of the gain suggest that listening, even without targeted instruction, can positively impact comprehension, particularly through increased exposure to vocabulary, sentence structure, and story flow.

However, in contrast to the experimental group, the listening group was not administered a delayed maintenance test. This omission limits any assessment of long-term comprehension or retention. Consequently, the extent to which the improvement persisted beyond the intervention period remains undetermined. Despite this limitation, the short-term gains observed indicate that passive listening serves as a low-resource instructional strategy capable of yielding cognitive benefits in early-stage ESL learners. Table 1 provides a detailed breakdown of individual student performance, while Figure 1 visually represents the upward trend from pre- to post-test across all participants.

Table-4:*Listening Group: Pre-Test and Post-Test Scores*

Student	Pre-Test Score	Post-Test Score
1	8.0	11.5
2	8.0	10.0
3	7.5	8.5
4	7.5	10.0
5	7.0	10.0
Mean	7.60	10.00
SD	0.42	1.06
p-value	—	0.003

Note. Full score = 15. N = 5.

The rise in post-test scores, ranging from +1.0 to +3.5 across individual students, highlights the relative effectiveness of auditory input in enhancing immediate comprehension. Student 1 exhibited the highest gain (+3.5), while Student 3, who already had a moderate pre-test score, showed the smallest improvement (+1.0). This variation may be attributed to individual differences in auditory processing ability or familiarity with narrative content. This finding aligns with previous literature, notably El-Koumy (1998), who argued that auditory exposure contributes to general familiarity with textual content but does not, by itself, instill the deeper narrative structures required for inferencing or retention. Passive listening, in this case, may have aided in reinforcing lexical and grammatical input, contributing to fluency and recognition rather than analytical comprehension.

The absence of such strategies in the listening group might explain why gains, although significant, were not as large or varied as those observed in the experimental group. While the listening group's improvement supports the inclusion of auditory resources in ESL pedagogy, its limitation lies in the absence of scaffolded interaction. Thus, to maximize learning outcomes, future instructional designs should combine passive input with active engagement strategies that support deeper cognitive processing and schema consolidation.

5.1.3 Control Group: No Meaningful Change

The performance of the control group presents a critical comparative benchmark for understanding the impact of pedagogic intervention on narrative comprehension among ESL learners. This group of five Class V students continued with routine English instruction under the standard curriculum, with no exposure to story grammar instruction or narrative-focused auditory input. The outcome of this non-intervention group reveals important limitations in traditional instructional approaches, particularly in under-resourced ESL contexts in India.

The pre-test mean score of the control group was 9.70, with a standard deviation (SD) of 0.76, suggesting relatively consistent baseline performance across participants. After the same time period during which the other two groups underwent their respective interventions, the group's mean post-test score remained 9.70, but with a substantial increase in SD to 2.75. A paired-samples t-test yielded a p-value of 0.50, indicating no statistically significant change.

These findings are indicative of instructional stagnation. Despite continued exposure to textbook content and classroom instruction, no net gains in comprehension were recorded at the group level. The widening of the standard deviation suggests increased inconsistency in student outcomes—some students, such as Student 1 and 4, showed marginal improvement (from 11.0 to 13.0 and 9.5 to 11.0, respectively), while Student 5 regressed from 9.0 to 5.5, highlighting the lack of systematic support for comprehension development. Table 5 provides a comprehensive breakdown of individual scores.

Table-5:*Control Group: Pre-Test and Post-Test Scores*

Student	Pre-Test Score	Post-Test Score
1	11.0	13.0
2	9.5	9.5
3	9.5	9.5
4	9.5	11.0
5	9.0	5.5
Mean	9.70	9.70
SD	0.76	2.75
p-value	—	0.50

Note. Full score = 15. N = 5.

The unchanged group mean despite a wide dispersion of scores highlights a lack of instructional responsiveness in the standard curriculum. While a few students may benefit independently from textual repetition or prior familiarity, others clearly do not, particularly in the absence of guided reading strategies. This supports the argument made by Hyland (2007), who contends that many ESL instructional environments in South Asia remain heavily dependent on mechanical text decoding, with little emphasis on the structural or inferential dimensions of comprehension.

Ramanathan (2005) similarly critiques Indian ESL classrooms for relying excessively on curriculum-bound learning that prioritizes vocabulary memorization and grammatical accuracy over genre-based reading and textual analysis. The results from this group affirm these concerns. Without exposure to story grammar or interactive listening, comprehension gains were uneven and, for some students, regressive.

The performance of Student 5 is particularly revealing. Scoring 9.0 on the pre-test and dropping to 5.5 on the post-test, this learner demonstrates the volatility of unguided instruction. While such regression may stem from external factors, it more likely reflects an inability to maintain or build on comprehension skills in the absence of explicit support structures. In contrast, all students in the experimental and listening groups showed improvement, further emphasising the role of structured pedagogical engagement.

The results from this group contribute a crucial contrast to the broader findings of the study. While the experimental group benefited significantly from explicit story grammar instruction, and the listening group showed measurable gains from passive auditory exposure, the control group remained stagnant. This not only validates the efficacy of structured interventions but also exposes the shortcomings of traditional ESL instruction in many Indian school contexts.

5.2 Correlation and Retention

To deepen the quantitative analysis of the intervention's effectiveness, Pearson's product-moment correlation coefficients were computed to examine the strength and direction of association between the different test phases within the experimental group ($N = 5$). This approach offers a statistical lens into the consistency of student performance and the retention of narrative comprehension over time, aligning with principles of longitudinal assessment reliability and internal coherence of instructional efficacy.

The first computed metric was the correlation coefficient (r) between pre-test and post-test scores. The resulting value, $r = 0.44$, indicates a moderate positive relationship between initial comprehension levels and immediate gains following the instructional intervention. Although not particularly strong, this value suggests that students with slightly higher baseline scores were somewhat more likely to benefit from the immediate effects of story grammar instruction. However, the moderate nature of this relationship also points toward the instructional intervention's equalizing potential—suggesting that even students with lower pre-test scores made observable progress.

More notably, the correlation between pre-test and maintenance test scores increased to $r = 0.63$, reflecting a stronger positive association. This indicates that the retention of comprehension gains one-week post-intervention was more closely aligned with students' baseline capabilities than was the case for the immediate post-test. The increased coefficient demonstrates improved performance stability, with a stronger alignment between students' foundational skills and their retained understanding of narrative structures.

Table-6 below presents the raw score data for each student in the experimental group across all three test phases, while Table-7 summarizes the correlational statistics.

Table-6:

Experimental Group Raw Scores Across Test Phases

Student	Pre-Test	Post-Test	Maintenance Test
1	7.5	15.0	13.0
2	7.5	9.5	11.0
3	7.0	6.5	10.0
4	7.0	13.0	10.0
5	7.0	9.0	11.0

Note. Maximum score = 15.

Table-7:*Pearson Correlation Coefficients Between Test Phases in Experimental Group*

Test Pair	Pearson's r	Interpretation
Pre-Test vs Post-Test	0.44	Moderate Positive Correlation
Pre-Test vs Maintenance Test	0.63	Strong Positive Correlation

From a cognitive perspective, these correlations indicate that story grammar instruction facilitates not only surface-level improvement but also supports the deepening of mental representations over time, consistent with schema-theoretic frameworks (Anderson, 2003). The improvement in correlation from 0.44 to 0.63 between successive test pairings implies that the instructional content was not merely retained but internalized in a structurally meaningful way.

In psychometric terms, the increased correlation coefficient for the maintenance test reflects greater temporal stability in comprehension outcomes, pointing to the intervention's longitudinal effectiveness. This suggests that story grammar may act as a stabilizing framework—enabling learners to integrate episodic details into a coherent mental model that persists beyond the immediate instructional period. Furthermore, the strength of the correlation ($r = 0.63$) meets the threshold for medium to strong effect sizes in behavioural sciences, thereby lending empirical support to the pedagogical merit of structured narrative instruction. While the sample size precludes generalization, the strength of association provides a promising indicator for further trials and curriculum development.

These findings are consistent with prior research suggesting that cognitive tools such as graphic organizers and structural mapping not only aid in comprehension but also in retention and schema automation (Graesser et al., 1991; Miller, 2014). The increasing alignment between baseline and delayed scores provides compelling evidence that instructional scaffolds—when applied systematically—contribute to deeper encoding and retrieval fluency.

5.3 Individual Performance: Variation in Response

A micro-level analysis of the experimental group's performance yields detailed insights into learner response variability, which is often obscured by group-level statistical summaries. Individual case trajectories reveal that, while the intervention was generally effective, its impact differed across students based on prior comprehension levels, learning preferences, and possibly the ability to internalize pedagogic scaffolds.

Student 1 demonstrated the most dramatic and immediate improvement. This student's score increased from 7.50 in the pre-test to a perfect 15.00 in the post-test, followed by a maintenance score of 13.00. Such a performance pattern indicates not only high responsiveness to the intervention but also effective retention of the narrative schema. This suggests that the student likely benefited from the structured nature of the instruction—particularly the story mapping and visual sequencing aids. Given the significant leap in scores, one can infer strong visual learning tendencies and a possible prior familiarity with some of the story components or genres used during the treatment phase.

By contrast, Student 3 exhibited a more gradual pattern of improvement, scoring 7.00 in the pre-test, dropping slightly to 6.50 in the post-test, and eventually reaching 10.00 in the maintenance test. This trajectory diverges from the linear improvement seen in Student 1 and illustrates the possibility of delayed cognitive assimilation. The drop in the post-test phase may be attributable to processing overload during the instructional sessions or limited working memory capacity to simultaneously apply new structural frameworks. The rebound in the delayed test suggests that the internalization of story grammar concepts continued post-intervention, even in the absence of further instruction.

Student 4 represents another notable case. This student progressed from 7.00 in the pre-test to 13.00 in the post-test, and although their maintenance test score dropped slightly to 10.00, it still reflects considerable improvement relative to the baseline. The sharp post-test gain implies a high degree of instructional uptake during the intervention phase. Anecdotal classroom observations indicated this student's active engagement during mapping activities and consistent participation in oral retelling tasks. This suggests that this learner may possess a strong affinity for task-based learning environments and benefits from multimodal input formats, especially when narrative elements are visually and sequentially organized.

Students 2 and 5 displayed moderate but steady improvements. Their post-test and maintenance scores, though not as dramatic as those of Student 1 or 4, reflect stable comprehension gains. These learners likely represent the middle cohort, who benefit from structured instruction but require ongoing reinforcement to achieve peak performance. Their trajectories reinforce the notion that instructional scaffolds work best when they are

tailored to cognitive readiness levels, and that a one-size-fits-all model may not be adequate in differentiated classroom settings.

The variation in individual outcomes underscores a foundational premise of constructivist learning theory—that learners actively construct knowledge through interaction with their environment, and that the efficacy of instructional inputs depends on learners’ existing cognitive structures (Piaget, 1970; Vygotsky, 1978). In practical terms, this suggests the need for differentiated instruction, whereby educators offer multiple entry points to the same learning goal using diverse formats: visual, auditory, and kinesthetic. These variations lend empirical support to the argument that formative assessment should not merely focus on aggregated scores but must also track learner-specific growth patterns. Such diagnostic insight enables teachers to recalibrate instruction in real time, offering targeted support to learners who may not immediately respond to the dominant instructional modality. In the context of this study, the individual data reveal that while story grammar instruction is generally effective, its impact is maximized when embedded in a responsive pedagogic framework that accommodates learner variability. Future research and classroom implementation efforts should aim to incorporate adaptive strategies that respond to such individual differences in processing, retention, and application.

5.4 Qualitative Observations: Classroom Interactions and Language Use

While statistical data provides measurable outcomes, qualitative observations during the intervention offer complementary perspectives on how students engaged with story grammar.

Engagement and Language Transfer: Students were encouraged to retell narratives in Bengali during scaffolded discussions. This translanguaging strategy, adopted to reduce cognitive load, helped bridge linguistic gaps and improved content comprehension. L1 use can serve as a cognitive bridge in L2 learning contexts, particularly when working with complex texts.

Visual Story Mapping: Students responded particularly well to graphic organizers. Those who initially struggled with inferencing or identifying key events found the visual representation of story arcs—beginning, middle, end—intuitive. The maps made invisible textual structures tangible that visual tools support structural recognition.

Peer Discussions and Confidence Building: The structured retelling activities prompted shy students to participate more actively. For instance, Student 5 in the experimental group, who had low pre-test scores, showed increased confidence in articulating character goals and outcomes during group activities. This suggests that structured discourse routines help foster not only comprehension but also oral proficiency and classroom confidence.

Listening Group Behaviours: Although this group did not receive direct instruction, their exposure to fluent reading had observable effects. Students mimicked sentence structures in their oral retellings and began to anticipate narrative resolutions. However, without visual scaffolds, their understanding was more surface-level. This supports Fichman et al. (2021) who note that auditory input aids familiarization but not necessarily deeper comprehension.

5.5 Assessment Design and Performance Patterns

The assessments used in the study—story grammar identification and sentence sequencing—were designed to align with both literal and inferential comprehension goals. Analysis of specific test items revealed:

- Students in the experimental group performed particularly well in identifying initiating events and character goals.
- The sentence sequencing task was a challenge across all groups but saw the most improvement in the experimental group, suggesting their better grasp of narrative progression.
- Students in the control group struggled with recognizing internal responses and resolutions, elements typically not emphasized in standard curricular instruction.

These item-level insights provide evidence that explicit instruction improves not just overall scores, but also deepens understanding of text-specific components. The concept of pedagogic discourse, the intervention can be interpreted as a shift from visible pedagogy (rote curriculum drills) to invisible pedagogy (cognitive scaffolding through structure and interaction). The success of the experimental group demonstrates that even in state-run, resource-constrained schools, pedagogic innovation through discourse structuring is achievable.

6. Conclusion

The findings of this exploratory study reaffirm the pedagogical significance of structured story grammar instruction in enhancing narrative comprehension among upper primary ESL learners in low-resource, vernacular-medium classrooms in India. By employing a quasi-experimental design that included experimental, listening, and control groups, the research generated both statistical and qualitative evidence to support the effectiveness of genre-based, scaffolded reading instruction over conventional curriculum-bound methods. The statistically significant improvement observed in the experimental group's post-test and maintenance scores, particularly the increase in mean from 7.20 to 11.25 ($p = 0.001$), demonstrates the efficacy of explicit story grammar instruction in building durable narrative understanding. The correlation coefficient between pre-test and maintenance test scores ($r = 0.63$) further indicates performance stability and long-term retention, lending empirical support to schema-theoretic frameworks of learning (Anderson, 2003).

In contrast, the listening group, although not receiving direct instruction, still showed significant gains (mean from 7.60 to 10.00, $p = 0.003$), highlighting the auxiliary role of passive auditory exposure in supporting surface-level comprehension. However, the absence of a delayed assessment limits conclusions about retention, and the qualitative data suggest that without guided interaction, auditory input alone is insufficient for deeper structural awareness. The control group, whose mean score remained static (9.70 to 9.70, $p = 0.50$), reflected the stagnation commonly found in traditional ESL pedagogy that prioritizes mechanical decoding over discourse-level engagement. The increased variability in this group's post-test scores further underscores the inconsistent outcomes associated with standard instructional approaches that lack differentiation or strategic scaffolding.

At the micro-level, the variation in student trajectories within the experimental group illuminated the importance of responsive, differentiated pedagogy. Some students demonstrated immediate improvement, while others exhibited delayed yet substantial gains, underscoring the need for instructional flexibility. The qualitative classroom observations, including the successful use of translanguaging, visual mapping, and peer interaction, confirmed that story grammar functions as more than a comprehension strategy—it also shapes learner agency, engagement, and confidence.

It calls for a pedagogic shift from text-bound literacy practices to strategy-driven models that equip learners to decode, interpret, and retain narrative meaning through explicit cognitive scaffolds. Future directions should include longitudinal studies with larger cohorts and cross-linguistic comparisons to further test the robustness and transferability of story grammar frameworks. In settings like India's state-run ESL classrooms, where meaningful literacy instruction remains constrained, such evidence-based approaches offer a path toward more equitable and cognitively empowering language education.

Declaration of Conflicting Interests

The author declares no potential conflicts of interest with respect to the research, authorship, and/or publication of this article.

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