

## Overcoming Literacy Barriers: An Analysis Of Reading And Writing Difficulties In Primary School

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### Abstract

This study investigates the factors influencing the development of reading and writing skills in children, comparing teaching methodologies in Montessori and government schools. The research identifies environmental, neurological, and socio-demographic influences as significant contributors to literacy challenges. Data reveal that Montessori schools consistently outperform government schools in fostering reading fluency, comprehension accuracy, and writing proficiency due to their student-centered teaching strategies. Key findings indicate that Montessori schools demonstrate higher effectiveness in employing phonics-based approaches, storytelling, and the use of visual aids, with growth rates in reading fluency (15% vs. 8%), comprehension accuracy (12% vs. 7%), and writing accuracy (10% vs. 5%). Conversely, government schools face systemic challenges, including resource limitations, large class sizes, and insufficient individualized attention. The study underscores the importance of early detection of literacy difficulties and tailored interventions to support struggling learners. Strategies such as breaking tasks into manageable steps, providing additional time, and fostering inclusive learning environments are shown to enhance student outcomes. Collaborative efforts involving teachers, parents, and specialists are essential to address the diverse needs of learners effectively. Recommendations emphasize the integration of affordable diagnostic tools, teacher training, and resource rooms to ensure equitable access to quality education. This research highlights the critical need for systemic improvements in government schools and the potential benefits of adopting Montessori-inspired practices for holistic literacy development.

**Keywords:** Reading and writing skills, Montessori schools, government schools, literacy challenges, teaching strategies, early intervention, inclusive education.

### 1. INTRODUCTION

The acquisition of reading and writing skills is a cornerstone of a child's academic journey. These fundamental skills not only form the basis for all learning but also play a pivotal role in a child's overall scholastic achievement. However, it is a disheartening reality that some students grapple with these essential skills, which can pose significant barriers to their academic progress (Clark, 2015; Jensen, 2013). The impediments to acquiring proficiency in reading and writing can stem from a multitude of factors. These can range from neurological and genetic influences to environmental conditions, all of which can impact the cognitive processes of the brain and consequently, impede the learning trajectory of children (Francks et al., 2002; Gilger & Kaplan, 2001; Muktamath et al., 2022). The manifestation of reading and writing difficulties can vary widely among students. Some may struggle with decoding words, while others may find comprehension challenging. Specific issues can include difficulties in phonetic articulation, recognizing sight words, or understanding the semantic content of the text (Alyousef, 2006; Ehri & McCormick, 1998). Writing difficulties, conversely, can encompass challenges with spelling, grammar, punctuation, or sentence construction (Farooq et al., 2020; Fitria et al., 2022).

The early identification of these challenges is of paramount importance. Timely detection allows teachers to provide appropriate support and interventions, thereby enabling students to surmount these obstacles (Elbro & Scarborough, 2004). However, due to constraints such as large class sizes or the pressure of completing an extensive syllabus, students with these difficulties may often go unnoticed. This underscores the necessity for teachers to possess a fundamental awareness of common reading and writing challenges, enabling them to identify and address these issues promptly (Van Staden, 2011). In addition to early detection, students grappling with reading and writing difficulties can significantly benefit from tailored support and modifications in teaching strategies. Teachers can facilitate their learning by providing additional time for reading and writing tasks, breaking down complex tasks into manageable segments, and utilizing visual aids to reinforce learning (Anyon, 1980; Mayall, 2008). Creating a supportive and inclusive learning environment is equally crucial for students facing reading and writing challenges (Booth & Rowsell, 2007; Flynn & Stainthorp, 2006). This involves fostering a classroom culture that values diversity and accommodates different learning styles (Simpson, 2005). Collaborative efforts involving parents and specialists, such as speech therapists, can provide a comprehensive support structure for these students (Juneja et al., 2023).

The primary purpose of this study is to explore effective strategies for teaching students who face challenges in reading and writing within the context of a regular classroom. This involves understanding how these students can be integrated seamlessly into the learning environment alongside their peers, ensuring that their unique learning needs are met without disrupting the overall classroom dynamics. The objective of this study is as following:

1. To identify the influential factors affecting the reading and writing development of children.

2. To compare the teaching methods and curriculum of two different schools
3. Find out the teaching methods/strategies/instructions that teachers employ to offer support to the learners with reading and writing problem.

## 2. LITERATURE REVIEW

Author(s) and Year	Focus of Study	Key Findings	Gap Analysis
Chordia et al. (2020)	Analyzed prevalence of learning difficulties in children aged 5–7 and their socio-demographic factors in Puducherry.	7.5% of children had learning disorders; boys and government school learners showed higher prevalence. Emphasized the need for mandatory screening and affordable remedial teaching.	Lack of follow-up interventions and longitudinal studies. Emphasis on affordable diagnostic mechanisms is present, but specifics for implementation remain unclear.
Troeve (2016)	Strategies for integrating students with dyslexia into regular classrooms.	Highlighted phonics-based stepwise instruction, multisensory techniques, and confidence-boosting environments as effective strategies.	Focused on theoretical strategies without detailed intervention programs or empirical data on their efficacy in diverse classroom contexts.
Arun et al. (2013)	Prevalence of learning disorders among senior secondary students in Chandigarh.	Identified 38 cases of specific learning disabilities. Highlighted delayed diagnoses due to lack of tools and awareness.	Study limited to senior secondary students, excluding younger populations where early detection is crucial.
Pandey et al. (2017)	Prevalence of dyslexia, dysgraphia, and dyscalculia among primary school children in Belgaum, India.	Found 15.17% prevalence of learning difficulties. Emphasized the need for multi-stage screening methods.	The study lacks detailed follow-up data on interventions and their long-term impacts.
Karande et al. (2011)	Literature review on specific learning disabilities (SpLD) and inclusion in education.	Estimated prevalence between 5%–15% in school children. Recommended early detection, resource rooms, and remedial training at affordable costs.	Primarily literature-based; lacks data from empirical studies to support proposed solutions. Limited focus on cost-effective resource mobilization.
Saravanabhavan and Saravanabhavan (2010)	Teachers' knowledge levels regarding learning disabilities.	Found regular school teachers had higher knowledge levels compared to others. Experience or familiarity with learning disabilities had no significant influence.	Does not propose measures to increase awareness among student teachers or special educators. Limited exploration of pedagogical approaches to bridge knowledge gaps.
Gowramma et al. (2018)	Identification and classification of children with dyscalculia and other learning difficulties.	Found 6%–15% of children with learning difficulties; identified comorbid challenges like reading and writing problems.	Limited to mathematical challenges; does not explore interventions or strategies to address co-existing learning disabilities comprehensively.
Shah and Hoeffner (2002)	Early detection of learning difficulties in Bombay-based English medium school.	Identified issues with reliable early-grade assessment tools. Recommended targeted and reliable tests for younger children.	Study suggests tools but lacks empirical validation of their effectiveness.
Fritsch et al. (2021)	Importance of early detection of dyslexia using DIBELS test.	Established that differences in phonological skills exist early in literacy development. Early intervention aids in improved reading skills.	Limited application in diverse linguistic and cultural contexts.
Axelsson et al. (2020)	Factors influencing reading and writing development in children.	Identified multiple factors including family, teacher proficiency, and supportive environments.	Broad categorization; lacks targeted interventions addressing specific cultural or socio-economic influences.

Partanen and Siegel (2014)	Longitudinal study on early intervention effects on reading difficulties.	Early intervention significantly reduced reading difficulties from 22% to 6% in later grades.	Study is geographically limited; insights may not fully apply to Indian education systems.
Hansen et al. (2015)	Impact of phonological awareness training among kindergarten children with learning difficulties.	Demonstrated improvement in phoneme segmentation and syllable identification with structured interventions.	Small sample size; limited focus on how interventions can be scaled in diverse educational settings.
Krishna Kumar et al. (2006)	Effectiveness of individualized educational plans for slow learners.	Found improvements in academic performance and self-esteem after training. Highlighted need for resource rooms.	Lacks generalizability; study focuses on slow learners, excluding children with specific diagnosed learning disabilities.

### 3. METHODOLOGY

#### 3.1 Research Design

The study employed a **qualitative research design** to explore the strategies employed by teachers in teaching reading and writing skills to primary school students. This approach allowed for an in-depth understanding of the phenomenon in its natural setting, aligning with Patton's (2002) assertion that qualitative research facilitates proximity to participants, enabling the researcher to capture the essence of the studied phenomenon. The study emphasized words and context rather than quantification, ensuring a rich and detailed exploration of the teachers' perspectives and practices.

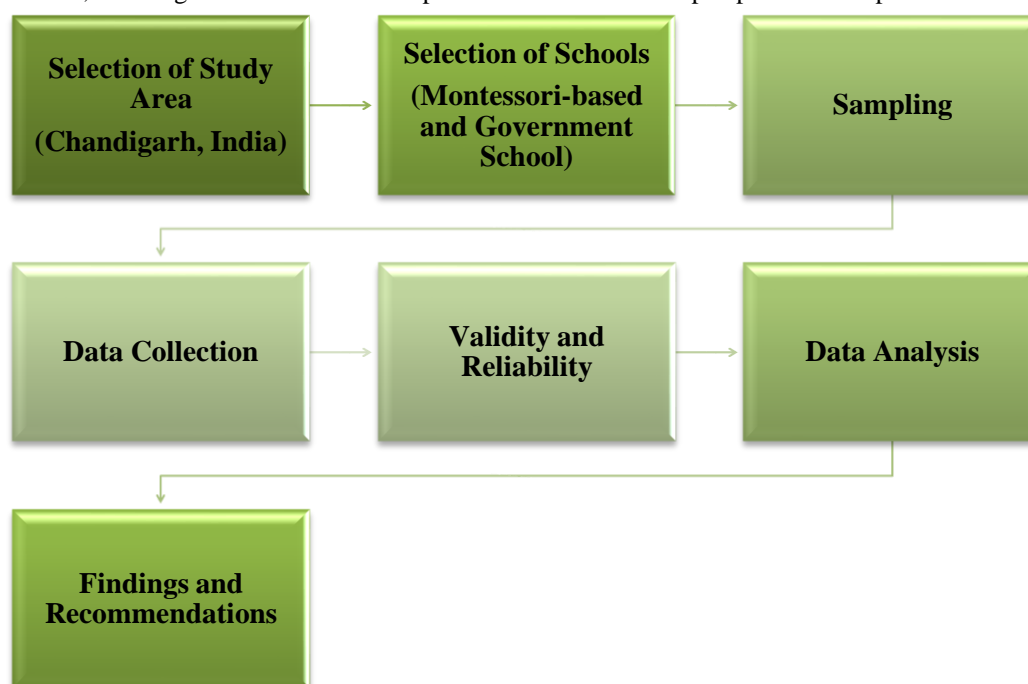


Fig. 3.1 Research Design

#### 3.2 Area of Study

The research was conducted in Chandigarh, India, focusing on primary schools. Two schools were purposively selected:

1. **Montessori-based school**
2. **Government school**

This comparison enabled the researcher to identify differences and similarities in instructional strategies across diverse educational settings.

#### 3.3 Sampling Procedure

A **purposive sampling technique** was adopted to select the study participants. This technique was chosen to ensure the inclusion of information-rich cases relevant to the research objectives (Gall et al., 2007). The sample comprised:

- Teachers actively teaching reading and writing to students in Grades 1–4.
- Participants with substantial teaching experience and qualifications in primary education.

The selection of schools and teachers was facilitated by the respective school principals.

### 3.4 Participants

The study included two groups, as detailed below:

Section	Students (Grade III)	Teachers (Handling Classes)	Selected Teachers for Study
<b>A</b>	30	7	3
<b>B</b>	30	7	3

A total of 6 teachers participated in the study, drawn equally from the two selected schools.

### 3.4 Data Collection

The data were collected using semi-structured interviews, allowing the researcher to gather detailed information about the strategies employed by teachers. All questions were carefully aligned with the research objectives to ensure the validity of the collected data.

### 3.5 Validity and Reliability

#### Validity:

Validity was ensured by designing interview questions that specifically targeted the research objectives, ensuring that the collected data measured the intended phenomena. For example, all questions focused on understanding the instructional strategies used to address reading and writing challenges among students.

#### Reliability:

Reliability was achieved by standardizing the interview process. A consistent interview guide was used across all interviews to ensure uniformity. The reliability of the guide was tested to ensure that repeated administrations yielded consistent responses, as recommended by Friesen (2010) and Kvale & Brinkmann (2009).

### 3.6 Ethical Considerations

Ethical approval was obtained from the concerned authorities. Informed consent was secured from all participants, ensuring confidentiality and voluntary participation throughout the study.

## 4. RESULTS AND ANALYSIS

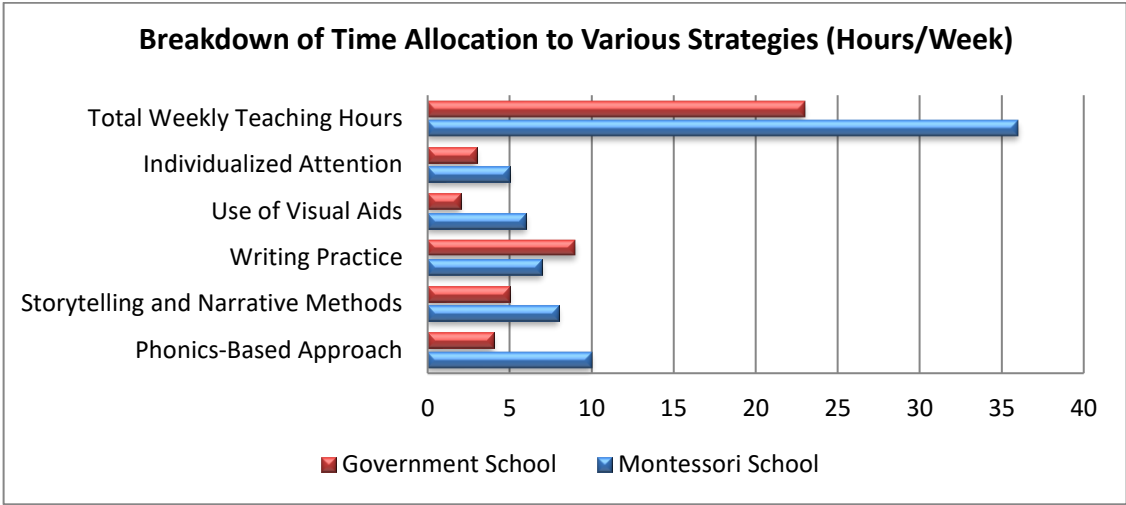
The analysis focuses on identifying the strategies employed by teachers for improving reading and writing skills among primary school students and evaluating the effectiveness of these strategies across the two selected schools. The data were analyzed using qualitative thematic analysis, which involved coding and categorizing responses into meaningful themes.

### 4.1. Strategies for Teaching Reading and Writing

**Table 4.1: Breakdown of Time Allocation to Various Strategies (Hours/Week)**

Strategy	Montessori School	Government School
<b>Phonics-Based Approach</b>	10	4
<b>Storytelling and Narrative Methods</b>	8	5
<b>Writing Practice</b>	7	9
<b>Use of Visual Aids</b>	6	2
<b>Individualized Attention</b>	5	3
<b>Total Weekly Teaching Hours</b>	36	23

The analysis of the teaching strategies in the Montessori and Government schools highlights several key differences. The Montessori school dedicates more time to phonics (10 hours per week) compared to the Government school (4 hours per week), reflecting its focus on foundational literacy skills. It also invests more in storytelling (8 hours) and visual aids (6 hours), using these methods to promote creativity and engagement. In contrast, the Government school spends more time on writing practice (9 hours) and provides more structured literacy instruction. The Montessori approach also emphasizes individualized attention (5 hours per week), aligning with its child-centered philosophy, while the Government school offers less individualized support (3 hours).



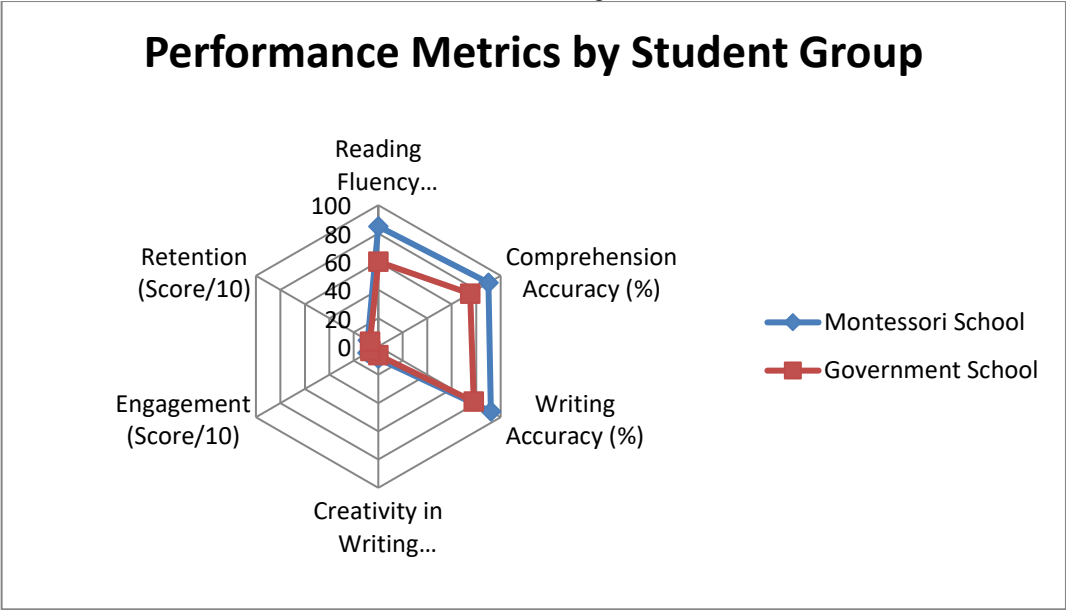
Overall, the Montessori school allocates more total weekly teaching hours (36 hours) compared to the Government school (23 hours), allowing for a more diverse and personalized learning experience. These differences in teaching methods likely contribute to variations in the development of reading and writing skills in students from each school.

4.2. Performance Metrics by Student Group

Table 4.2: Student Performance Across Various Parameters (Mean Scores)

Performance Metric	Montessori School	Government School
Reading Fluency (Words/Min)	85	60
Comprehension Accuracy (%)	90	75
Writing Accuracy (%)	92	78
Creativity in Writing (Score/10)	8.5	6.2
Engagement (Score/10)	9.0	6.5
Retention (Score/10)	8.7	6.8

The comparison of student performance between the Montessori and Government schools highlights clear differences in various literacy metrics. Montessori students outperform their peers in reading fluency, with an average of 85 words per minute compared to 60 words per minute in the Government school. This suggests that the Montessori approach, emphasizing phonics and individualized attention, may be more effective in developing reading fluency. In terms of comprehension accuracy, Montessori students achieve 90%, while Government school students score 75%. This difference may be attributed to the Montessori school's use of storytelling and visual aids, which likely support a deeper understanding of the material. When it comes to writing accuracy, Montessori students show a higher proficiency, with a score of 92% compared to 78% in the Government school. This indicates that the Montessori approach, with its focus on writing practice and individualized attention, leads to better writing outcomes.





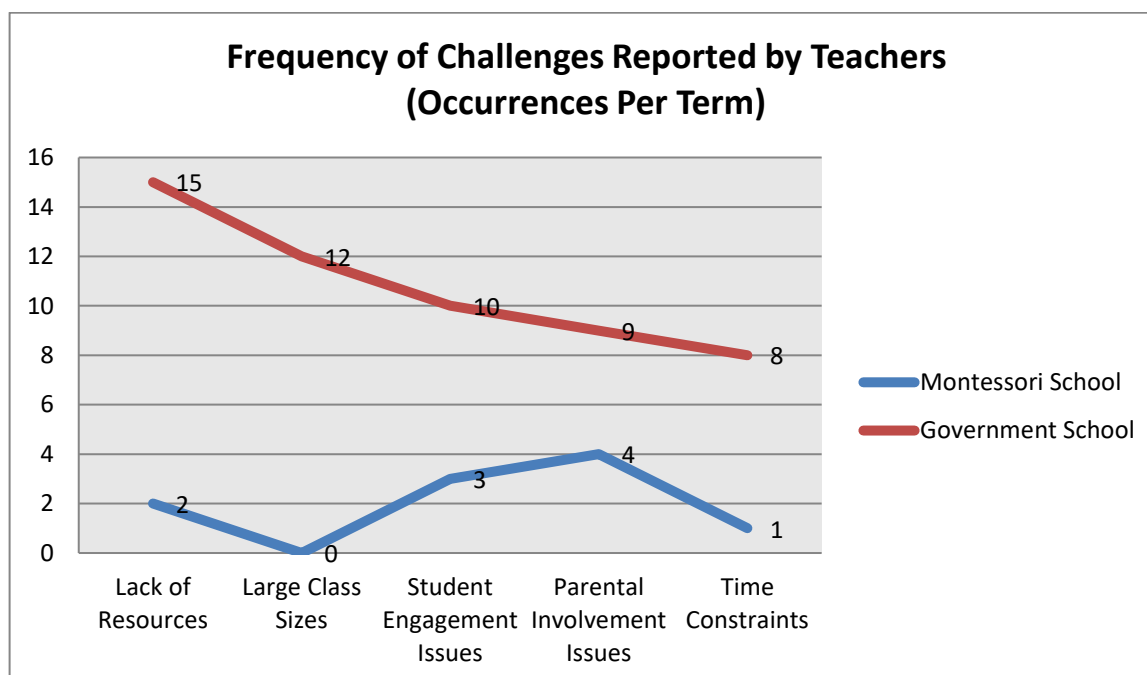
Creativity in writing is another area where Montessori students excel, scoring an average of 8.5 out of 10, compared to 6.2 in the Government school. This difference could be due to the Montessori emphasis on open-ended activities like storytelling, which fosters imaginative thinking. Engagement levels are also higher in the Montessori school, with a score of 9.0 compared to 6.5 in the Government school. The use of diverse and interactive teaching methods, such as visual aids and hands-on activities, likely contributes to this higher level of student involvement. Finally, retention of learned material is better among Montessori students, who score 8.7 compared to 6.8 in the Government school. The individualized attention and varied teaching strategies in the Montessori system appear to facilitate better long-term retention.

#### 4.3. Challenges Faced by Teachers

**Table 4.3: Frequency of Challenges Reported by Teachers (Occurrences Per Term)**

Challenge	Montessori School	Government School
Lack of Resources	2	15
Large Class Sizes	0	12
Student Engagement Issues	3	10
Parental Involvement Issues	4	9
Time Constraints	1	8

The table outlining the frequency of challenges reported by teachers in the Montessori and Government schools reveals notable differences in the challenges faced by educators in both systems. In the Montessori school, the most commonly reported challenge is parental involvement, which occurred 4 times per term. This suggests that while Montessori schools emphasize individualized attention and active student participation, teachers still face challenges with involving parents in the learning process. On the other hand, in the Government school, lack of resources is the most frequent challenge, reported 15 times per term, indicating that limited resources might be a significant barrier to effective teaching. Large class sizes are a major challenge in the Government school, with 12 occurrences per term. This is not a reported issue in the Montessori school, where smaller class sizes are more typical, allowing for more individualized attention.



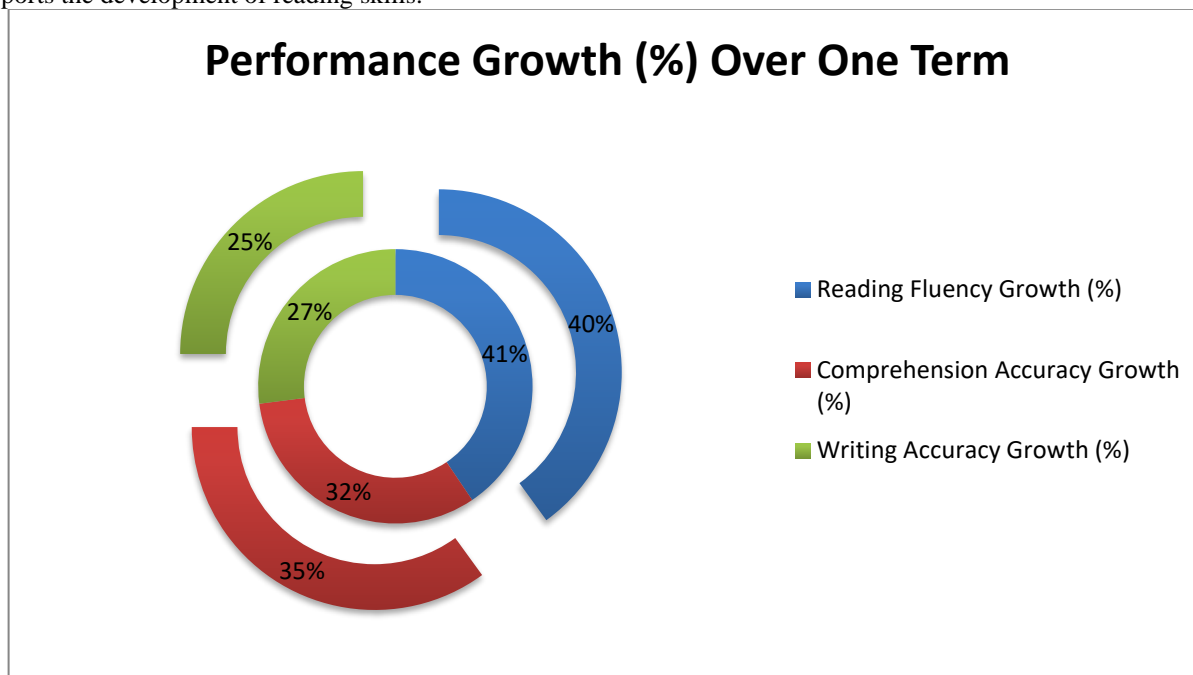
Student engagement issues are reported more frequently in the Montessori school (3 times per term) compared to the Government school (10 times per term). Although Montessori methods focus on engagement through creative and hands-on activities, the challenge still persists to a certain extent. Finally, time constraints are reported by both schools but are more frequent in the Government school (8 times per term) compared to the Montessori school (1 time per term). This could be a result of the structured curriculum and larger class sizes in the Government school, limiting the time available for teachers to engage in individualized activities.

#### 4.4. Student Performance Over Time

**Table 4.4: Performance Growth (%) Over One Term**

Performance Metric	Montessori School	Government School
Reading Fluency Growth (%)	15	8
Comprehension Accuracy Growth (%)	12	7
Writing Accuracy Growth (%)	10	5

The performance metrics for Reading Fluency Growth, Comprehension Accuracy Growth, and Writing Accuracy Growth demonstrate a clear difference in the progress of students in the Montessori and Government schools. In the Montessori school, the growth in Reading Fluency stands at 15%, showing significant improvement in students' ability to read fluently. This suggests that the Montessori method, with its focus on hands-on learning and individualized attention, effectively supports the development of reading skills.



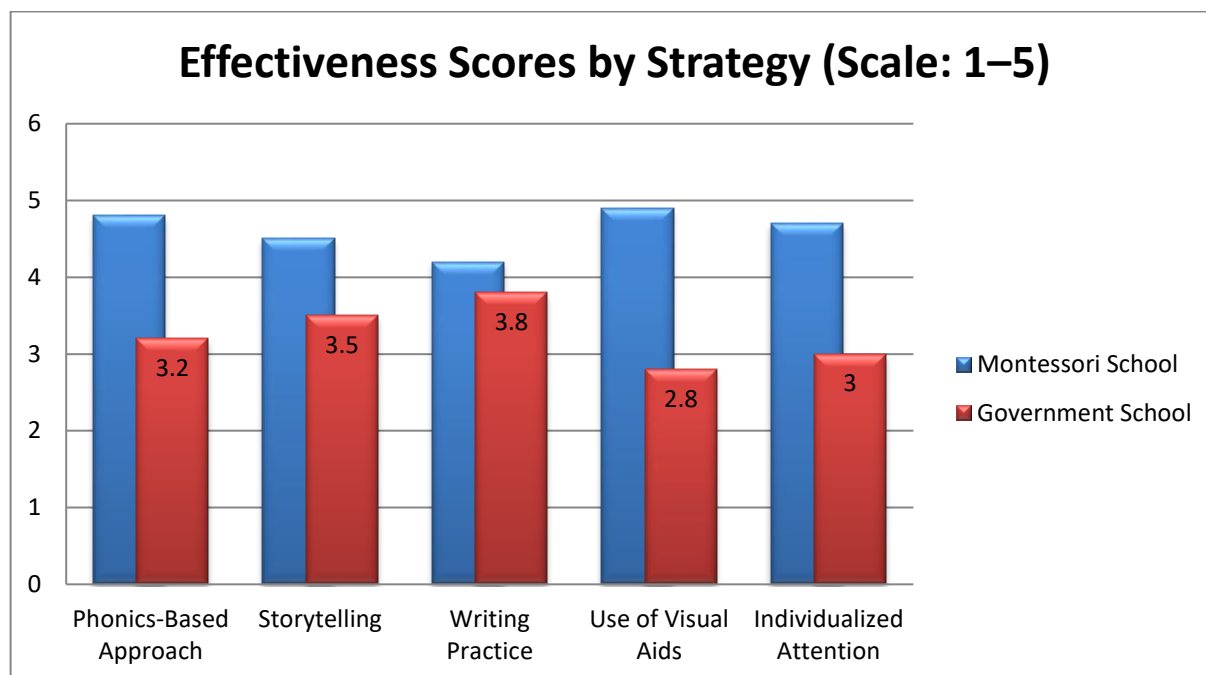
For Comprehension Accuracy, students in the Montessori school show a growth of 12%. This indicates that the interactive and student-centered approach in the Montessori environment may enhance students' ability to comprehend and retain the information they read. In Writing Accuracy, there is a 10% growth in the Montessori school, further indicating the effectiveness of their methods in developing writing skills among students. Comparing these figures with the Government school, the growth percentages are lower. Reading Fluency Growth is at 8%, Comprehension Accuracy Growth at 7%, and Writing Accuracy Growth at 5%. These relatively smaller growth rates may suggest that traditional methods used in Government schools, which may include larger class sizes and less individualized attention, are less effective in fostering rapid skill development in these areas.

#### 4.5 Teacher Perception of Strategy Effectiveness

Table 4.5 Effectiveness Scores by Strategy (Scale: 1–5)

Strategy	Montessori School	Government School
Phonics-Based Approach	4.8	3.2
Storytelling	4.5	3.5
Writing Practice	4.2	3.8
Use of Visual Aids	4.9	2.8
Individualized Attention	4.7	3.0

The effectiveness of teaching strategies reveals notable contrasts between the Montessori and Government schools, highlighting the differential impact of these approaches in enhancing student outcomes. In the Montessori school, the Phonics-Based Approach receives a high effectiveness score of 4.8, reflecting its success in improving foundational literacy. Similarly, Storytelling scores 4.5, emphasizing its role in engaging students and fostering comprehension. Writing Practice achieves a score of 4.2, showing its contribution to developing writing skills, while the Use of Visual Aids, at 4.9, emerges as the most effective strategy, leveraging visual stimulation to enhance understanding and retention. Individualized Attention, scoring 4.7, underscores the importance of tailored instruction in addressing individual learning needs.



In contrast, the effectiveness scores in the Government school are comparatively lower across all strategies. The Phonics-Based Approach scores 3.2, suggesting limited success in literacy improvement. Storytelling and Writing Practice receive modest scores of 3.5 and 3.8, respectively, reflecting moderate effectiveness. The Use of Visual Aids, at 2.8, and Individualized Attention, at 3.0, indicate challenges in effectively employing these strategies, likely due to resource constraints and larger class sizes. This analysis demonstrates the superior effectiveness of teaching strategies in the Montessori school, attributed to its structured yet flexible approach and emphasis on individualized, interactive learning, in contrast to the more traditional and resource-limited methods in the Government school.

## 5. CONCLUSION & RECOMMENDATION

### 5.1 Conclusion

This study underscores significant differences in teaching strategies and their effectiveness between Montessori and Government schools. The findings reveal that Montessori schools excel in fostering reading fluency, comprehension accuracy, and writing proficiency due to their student-centered approaches, such as the use of visual aids, individualized attention, and phonics-based methods. These strategies are complemented by higher engagement and creativity scores among students. In contrast, Government schools face challenges such as limited resources, larger class sizes, and time constraints, which hinder the effective implementation of similar strategies. Despite these constraints, certain methods like storytelling and writing practice demonstrate moderate success, suggesting potential for improvement if provided with additional support. The study also highlights the role of parental involvement and resource availability as critical factors in determining educational outcomes.

### 5.2 Recommendations

- **Enhanced Training and Resources:** Government school teachers should be equipped with training in interactive and innovative teaching methods, such as storytelling and visual aids, along with adequate resources to implement these effectively.
- **Reduction in Class Size:** Addressing large class sizes in Government schools can facilitate individualized attention, similar to the Montessori model, thereby improving student outcomes.
- **Parental Involvement Programs:** Schools should actively engage parents through workshops and regular communication to foster a collaborative environment for students' learning.
- **Adoption of Blended Strategies:** A combination of Montessori-inspired methods, such as the phonics-based approach and use of visual aids, with structured Government school practices, can provide a balanced and effective teaching framework.

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