



The study of Effect of Drill Method on Writing Skills of Primary School Students with Dysgraphia in District Yamuna Nagar

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Abstract

Dysgraphia is a learning disorder where children face writing difficulties. Generally children with Dysgraphia have poor handwriting, mixed prints, and cursive or irregular spacing between the words and sentences. In the present study researcher focuses on the effectiveness of Drill Method on primary school students with Dysgraphia in district Yamuna Nagar. The Drill Method offers a systematic and repeated practice to the students to strengthen their skills. A total of 454 students were screened from selected schools, among them, 200 students were referred by teachers because of observed writing difficulties. Following the assessment through the GMAT and DTLTD, 60 students were identified as having Dysgraphia-related writing difficulties, and divided into two equal groups. 30 students were in experimental group followed by the Drill Intervention Programme. 30 Students were in control group who attended regular classes. The results showed a significant difference between the performance of control group and experimental group after the intervention of drill method.

Key Words: *Dysgraphia, Drill Method, Writing Skills*

Introduction

Writing is one of the most essential skills acquired during the early years of education. It serves as an important medium through which children communicate ideas, demonstrate understanding, organize thoughts, and participate in academic activities. The development of writing skills involves the integration of several abilities, including fine-motor coordination, visual perception, language development, working memory, attention, and the organization of ideas (Alloway & Alloway, 2013; Graham & Harris, 2000; Mc Cutchen, 2011).

Dysgraphia is commonly used to describe significant difficulties associated with handwriting and written expression. In the *Diagnostic and Statistical Manual of Mental Disorders* (5th ed.), difficulties in written expression are considered under Specific Learning Disorder, with impairment in written expression, rather than as a separate diagnostic category (American Psychiatric Association, 2013). The term developmental dysgraphia is also used in the literature to describe persistent difficulties in the acquisition and performance of writing skills.

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Research indicates that handwriting difficulties may benefit from structured intervention and systematic practice. For example, Alhusaini et al. (2016) reported significant improvements in several handwriting characteristics, including legibility, form, alignment, size, and spacing, following a short-term intervention programme for elementary school children. Such findings highlight the importance of providing appropriate and timely intervention to students experiencing writing difficulties.

The present study focuses on the effectiveness of the Drill Method as an intervention strategy for improving the writing skills of primary school students with Dysgraphia in District Yamuna Nagar, Haryana.

Need and Significance of the Study

Dysgraphia and other writing difficulties can create significant barriers to academic development because writing is an important means of learning, communication, and assessment. Students may understand concepts presented during classroom instruction but experience difficulty expressing their knowledge through written responses. Persistent difficulty in writing may consequently affect academic participation and students' confidence in performing writing-related tasks (Feder & Majnemer, 2007).

Writing requires the coordination of transcription skills and higher-level processes. Handwriting, spelling, language formulation, working memory, planning, and self-regulation all contribute to effective written production (Alloway & Alloway, 2013; Graham & Harris, 2000). Therefore, intervention approaches that provide repeated opportunities to practise specific writing components may be useful for students who experience persistent writing difficulties.

However, schools, particularly those serving rural and semi-urban communities, may experience limitations related to specialist personnel, assessment facilities, teacher training, and other educational resources. Consequently, there is a need for intervention strategies that are simple, economical, structured, and feasible within ordinary classroom settings.

The Drill Method provides a practical approach based on repeated and systematic practice of specific skills. Repeated practice can provide learners with opportunities to strengthen procedural knowledge and improve fluency. Feedback is also an important component of effective learning because appropriately provided feedback can influence learning and achievement (Hattie & Timperley, 2007).

The present study is significant because it attempts to provide empirical evidence regarding the usefulness of a structured Drill Method intervention for improving writing skills among primary school students with Dysgraphia related writing difficulties. The findings may be useful to teachers, special educators, school administrators, and educational planners in developing practical support strategies for children experiencing writing difficulties.

Objectives of the Study

The study was conducted with the following objectives:

1. To study the effect of the Drill Method on the writing skills of primary school students with Dysgraphia
2. To compare the performance of experimental group and control group.

Hypothesis of the Study

There is a significant effect of Drill Method on the writing skills of primary school students with Dysgraphia in District Yamuna Nagar.

Research Methodology

➤ Research Design

The present study employed a quantitative experimental research design to examine the effect of the Drill Method on the writing skills of primary school students with Dysgraphia-related writing difficulties. The research process was completed through systematic phases involving identification, assessment, intervention, and evaluation.

➤ Population and Sample of the Study

The population of the study consisted of 454 students studying in selected schools of District Yamuna Nagar. Students from Grades II to IV were selected. Following psychological and educational assessment using the selected standardized tools, 60 students were identified as having Dysgraphia related writing difficulties and were selected as the final sample of the study.

The selected students were divided into two groups:

- **Experimental Group:** 30 students who received the Drill Method intervention.
- **Control Group:** 30 students who continued with regular classroom teaching.

➤ Tools Used for Data Collection

1. General Mental Ability Test (GMAT)
2. Diagnostic Test of Learning Disability (DTLD)
3. Self-Made Writing Test

Intervention Procedure

The Drill Method intervention was provided to the experimental group for four weeks, with each session lasting approximately 30-40 minutes. In the present study the intervention included the following activities:

- **Letter Drills:** Students practiced repeated formation of letters to improve handwriting control, shape, consistency, and legibility.
- **Word Drills:** Students practiced spelling patterns and word-formation activities to improve spelling accuracy and writing fluency.
- **Sentence Drills:** Students were engaged in sentence-construction exercises to improve sentence organization, grammatical accuracy, and written expression. The intervention emphasized gradual improvement through repetition, teacher guidance, corrective feedback, and continuous practice.
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Student Involvement in the Activities during Intervention

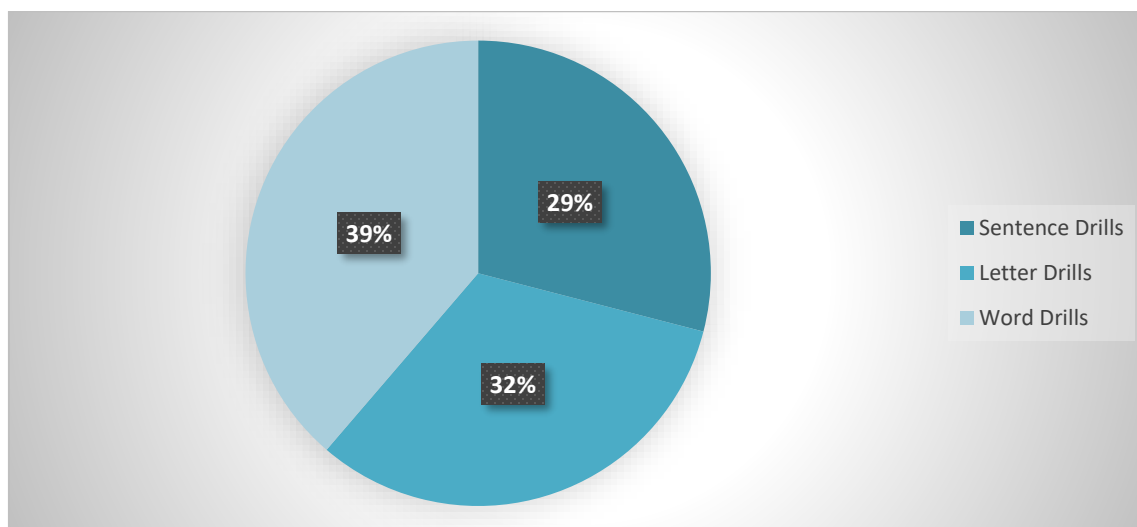


Figure: 1.1

Data analysis and Interpretations:

Mean Scores of Experimental group Pre Test and Post Test

Test	N	Mean	Standard Deviation	t- value
Pre-test	30	8.10	2.43	22.25
Post-test	30	16.50	1.38	

Table: 1.1

Interpretation

The mean score of the experimental group increased from 8.10 in the pre-test to 16.50 in the post-test. This indicates improvement in writing skills after receiving the Drill Method intervention. The calculated t-value 22.25 is greater than the table value 2.045 at 0.05 level of significance. There is a significant difference between the performance of Pre Test and Post Test Scores of Experimental Group.

Mean Scores and t-value of Post Test Experimental Group and Control Group

Groups	N	Post Test Mean Scores	S.D.	t-value
Experimental	30	16.50	1.87	15.29
Control	30	9.13	1.86	

Table: 1.2

Interpretation

The calculated t-value 15.29 is greater than the table value 2.002 at 0.05 level of significance. Therefore, the improvement in writing skills of the experimental group after Drill Method intervention is statistically significant. Hence, the hypothesis that “There is a significant effect of Drill Method on the writing skills of primary school students with Dysgraphia” is accepted.

Major Findings of the Study

❖ Identification of Students with Dysgraphia

A total of 454 students were screened from selected schools. Among them, 200 students were referred by teachers because of observed writing difficulties. Following assessment through the GMAT and DTLTD, 60 students were identified as having Dysgraphia-related writing difficulties.

❖ Effect of the Drill Method on Writing Skills

The experimental group demonstrated improvement following the Drill Method intervention. The mean writing score increased from 8.10 in the pre-test to 16.50 in the post-test. The statistical analysis using a paired-samples *t*-test indicated that the improvement was statistically significant at the 0.05 level. The finding suggests that the structured Drill Method intervention was associated with improvement in the writing performance of the students in the experimental group.

❖ Comparison Between Experimental and Control Group

The experimental group obtained a mean score of 16.50, whereas the control group obtained a mean score of 9.13 during Post Test. The experimental group therefore demonstrated substantially greater mean improvement than the control group following the intervention. These findings suggest that structured writing practice may provide additional benefits beyond regular classroom instruction for students experiencing writing difficulties.

Conclusion

The present study concluded that the Drill Method was associated with improvement in the writing skills of primary school students with Dysgraphia related writing difficulties. Students, who received structured writing drills, demonstrated considerable improvement in their writing performance, and in all areas which were assessed through the researcher-developed writing test. The study contributes to the field of special and inclusive education by highlighting the potential usefulness of a practical classroom-based intervention for students experiencing writing difficulties. It emphasizes the importance of early identification, structured practice, appropriate feedback, and accessible intervention methods to provide children with meaningful opportunities to improve their academic writing skills.

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