

# Academic Challenges of Learning Disabled Students in Mathematics and English: Effectiveness and Remedial Measures

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## Abstract

In today's fast-changing world, education stands as the foundation for shaping a student's future career, personality, and adaptability to life's challenges. Among all subjects, Mathematics and English are central to both academic progress and practical living, yet they pose significant difficulties for students with learning disabilities. Such challenges, often linked to conditions like dyslexia and dyscalculia, affect how learners process and retain information, leading to struggles with reading, spelling, arithmetic, fractions, and problem-solving. These difficulties not only impact academic performance but also diminish self-confidence and motivation.

The present study focuses on three key aspects: first, identifying the academic and emotional challenges faced by learning-disabled students in Mathematics and English; second, evaluating

their academic effectiveness beyond traditional assessment methods, which often overlook hidden abilities; and third, suggesting remedial measures to improve learning outcomes. Strategies such as activity-based learning, phonics programs, visual aids, ICT tools, and step-by-step teaching methods can make a significant difference in their progress. By adopting inclusive, empathetic, and innovative approaches, schools and teachers can unlock the potential of learning-disabled students, helping them achieve academic success while building confidence and resilience for the future.

## Introduction

In today's competitive and fast-changing world, education has become the strongest foundation on which a person's future career and personality are built. It is not only about gaining knowledge from books but also about developing problem-solving skills, confidence,

communication, and the ability to adapt to challenges in life. Subjects like Mathematics and English play a central role in this journey. Mathematics sharpens logical thinking, analytical reasoning, and the ability to deal with real-life problems, while English acts as a bridge for communication, creativity, and access to global opportunities. Together, these subjects become the backbone of both academic progress and everyday living.

However, the reality is that not all learners walk the same path with equal ease. Many students face difficulties that go beyond simple lack of interest or practice. For them, the struggle is rooted in learning disabilities—conditions that affect how they process, understand, and retain information. A child with dyslexia may find it hard to read fluently or spell correctly, while another with dyscalculia may experience anxiety and confusion when working with numbers or solving arithmetic problems. These challenges often remain invisible at first but gradually affect the student's confidence, performance, and even self-image.

As a result, subjects like Mathematics and English, which should empower students, often become sources of fear and frustration for those with learning disabilities. They may find themselves left behind, not because they lack intelligence or ability, but because they require different methods of teaching and support. This creates an urgent need for schools, teachers, and parents to recognize these challenges and respond with patience, creativity, and effective remedial strategies. When learning-disabled students are provided with the right environment and tools, they not only improve academically but also regain hope, motivation, and belief in their own potential.

### **The present paper focuses on:**

The focus of this study is threefold, beginning with identifying the real challenges that learning-disabled students face in Mathematics

and English. These subjects, often considered the foundation of academic success, present unique struggles for such learners. In Mathematics, difficulties arise in understanding basic arithmetic, fractions, or problem-solving, while in English, issues such as weak reading fluency, spelling errors, and limited comprehension create barriers. These challenges are not just academic; they often affect the child's confidence and emotional well-being.

The second aspect involves evaluating their academic effectiveness. Traditional assessments often fail to capture the true abilities of learning-disabled students. While they may underperform on written tests, many of them possess creativity, logical thinking, or oral communication skills that go unnoticed. Evaluating their effectiveness requires moving beyond marks and grades to truly understand how these students learn, how they cope with difficulties, and what strategies help them progress.

Finally, the study aims at suggesting remedial measures to improve outcomes. Through supportive teaching methods, step-by-step instruction, and tools such as visual aids, phonics, games, and ICT-based learning, these students can achieve remarkable growth. With patience, empathy, and the right interventions, their hidden potential can be unlocked, giving them equal opportunities to succeed.

### **Need of the Study**

Mathematics and English are not just subjects in the school curriculum; they are life skills that shape how students think, communicate, and prepare for future opportunities. Mathematics sharpens logical reasoning and problem-solving, while English opens doors to communication, creativity, and employability in a globalized world. However, for students with learning disabilities, these subjects often turn into their biggest hurdles. A child who struggles

with numbers may feel anxious every time they face a math problem, while another who finds reading difficult may lose confidence in expressing themselves in English. Over time, repeated failures in these areas do more than just affect marks—they erode self-esteem, create frustration, and reduce motivation to learn.

This makes the role of schools and teachers critically important. Instead of viewing these students as “weak” or “slow,” educators must recognize that they learn differently and therefore need different approaches. Effective strategies such as using visual aids, step-by-step instruction, phonics, interactive games, and supportive feedback can transform the learning experience. More importantly, fostering patience, empathy, and encouragement in the classroom can give these students the confidence to overcome challenges. Inclusive education is not just about teaching all students together; it is about ensuring that every child has an equal chance to succeed.

### **Objectives**

The purpose of this study is to look closely at the real academic struggles faced by students with learning disabilities in Mathematics and English. These subjects are often seen as the backbone of education, yet for many learners they become constant sources of stress and difficulty. By studying their problems in detail, we can better understand the barriers that hold them back. At the same time, it is important to analyze how effective their current learning outcomes are—not just in terms of marks, but also in how well they are able to grasp concepts, apply knowledge, and build confidence. Finally, this study aims to go beyond identifying challenges by suggesting practical and effective remedial strategies. With the right teaching methods, tools, and support systems, learning-disabled students can improve their performance and gain the confidence to succeed both academically and in life.

### **Hypotheses**

Students with learning disabilities often find themselves performing at a lower level in Mathematics and English compared to their peers. This does not mean they lack intelligence or potential; rather, it reflects the unique challenges they face in processing numbers, language, and abstract concepts. While their classmates may progress with regular teaching methods, these students often need extra time, patience, and different approaches to truly understand and apply what they are learning.

The encouraging part is that with the right kind of teaching methods, targeted remedial support, and the use of modern ICT tools, their academic outcomes can improve significantly. Visual aids, interactive software, step-by-step guidance, and personalized learning strategies can make even the most difficult topics more accessible. When teachers combine empathy with effective tools, learning-disabled students not only perform better in Mathematics and English but also gain the confidence to believe in their own abilities.

### **Methodology**

The study is designed as a blend of descriptive and experimental research, allowing both an in-depth understanding of the students' difficulties and a practical way to test solutions. The sample includes around 30 to 50 students from classes VIII to X who have been identified with learning disabilities. These students represent a crucial age group where academic performance in Mathematics and English greatly influences future education and career opportunities.

To gather meaningful insights, a variety of tools are used. Diagnostic test papers in Mathematics and English help in identifying the specific areas where students struggle the most, whether it is basic arithmetic, fractions, spelling, or reading comprehension. Alongside this, interview schedules with both teachers and students

provide a more personal perspective, revealing not just academic gaps but also emotional and motivational challenges. Observation checklists are also employed to carefully record classroom behaviors, participation, and responses to different teaching strategies. Together, these methods create a well-rounded picture of the challenges faced and help in designing remedial approaches that are both practical and effective.

### Problems Faced by Students

#### Mathematics:

- Difficulty in arithmetic operations.
- Struggles with fractions, time, and word problems.
- Poor problem-solving skills and anxiety about numbers.

#### English:

- Spelling errors and weak grammar skills.
- Low reading fluency and comprehension.
- Poor vocabulary retention.

#### Effectiveness (Findings)

- Academic progress of learning-disabled students is generally slower compared to normal learners.
- Repeated failures create negative attitudes and low self-esteem.
- However, with remedial teaching, step-by-step instruction, and peer support, students show significant improvement.

- Use of visual aids (flashcards, abacus, charts).
- Activity-based learning through games and puzzles.
- Step-by-step problem-solving with repeated practice.

#### For English:

- Phonics-based reading programs.
- Use of picture stories, role-play, and simple texts.
- Word-building games and spelling drills.

#### General Strategies:

- Peer tutoring and cooperative learning.
- Use of ICT tools (educational apps, audio-visuais).
- Parental involvement and continuous feedback.
- Special remedial classes tailored to individual needs.

#### Conclusion

Learning-disabled students face serious challenges in Mathematics and English, but these difficulties are not permanent barriers. With appropriate teaching strategies, supportive classroom environments, and remedial measures, their academic performance and confidence can improve significantly. Inclusive education should prioritize these students to help them become capable and successful individuals.

### Remedial Measures

#### For Mathematics:

### References





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