



## **EFFECTIVENESS OF INDIVIDUALIZED EDUCATIONAL INTERVENTIONS ON BEHAVIORAL, ACADEMIC, AND SOCIAL OUTCOMES FOR A STUDENT WITH SEVERE INTELLECTUAL DISABILITY IN AN INCLUSIVE PRIMARY SCHOOL: A SINGLE-CASE ACTION RESEARCH STUDY**

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### **Abstract**

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*This action research study examined the impact of a comprehensive individualized intervention programme on the behavioral, academic, and social outcomes of an 8-year-old student with 75% certified intellectual disability studying in an inclusive rural primary school. A single-case action research design was adopted over ten months. Interventions included an Individualized Education Plan (IEP), positive behavior support, individualized instruction, classroom accommodations, peer-mediated learning, and structured parent collaboration. Findings revealed substantial improvements in attention span, task completion, social participation, and behavior regulation. The study demonstrates that evidence-based inclusive practices can produce meaningful outcomes even in resource-constrained rural schools and provides practical implications for teachers, school leaders, and policymakers.*

**Keywords:** *Inclusive Education; Intellectual Disability; Individualized Education Plan; Positive Behavior Support; Action Research; Behavioral Intervention; Rural Schooling; Inclusive Pedagogy.*

### **1. Introduction**

Inclusive education has become a global educational priority. International frameworks such as the Salamanca Statement, the United Nations Convention on the Rights of Persons with Disabilities, and India's Rights of Persons with Disabilities Act advocate equitable access to quality education. However, inclusion is not merely physical placement; it requires meaningful participation and learning opportunities.

Students with severe intellectual disabilities often experience difficulties related to attention, communication, adaptive functioning, behavior regulation, and social participation. These challenges may limit their engagement within mainstream classrooms unless appropriate supports are provided. The present study emerged from a practical classroom challenge and sought to investigate whether systematic individualized interventions could improve educational outcomes for a learner with severe intellectual disability.

## **2. Review of Literature**

Research consistently supports individualized interventions for students with significant disabilities. Browder et al. emphasized systematic instruction and task analysis for improving academic outcomes. Freeman et al. demonstrated the effectiveness of Positive Behavior Support in reducing disruptive behaviors and improving participation. Blue-Banning et al. highlighted the importance of family–school partnerships.

Recent inclusive education research further indicates that structured supports, differentiated instruction, peer-mediated learning, and continuous progress monitoring contribute significantly to learner achievement. Despite this evidence, relatively few practitioner-led studies have documented implementation in rural Indian government schools, creating a need for context-specific evidence.

## **3. Research Gap**

Existing literature contains limited empirical documentation of teacher-led intervention models implemented in rural inclusive classrooms serving learners with severe intellectual disabilities. Furthermore, few studies provide detailed descriptions of intervention procedures and measurable outcomes within resource-constrained settings.

## **4. Conceptual Framework**

The study was guided by a multidimensional intervention framework integrating inclusive pedagogy, positive behavior support, social learning theory, and family engagement principles. The framework assumed that individualized planning, environmental support, reinforcement strategies, peer interaction, and parental collaboration would collectively improve educational outcomes.

## **5. Objectives of the Study**

1. Assess the student's educational and behavioral needs.
2. Design and implement an Individualized Education Plan.
3. Reduce hyperactive and disruptive classroom behaviors.
4. Improve academic engagement and task completion.

5. Enhance social participation and adaptive functioning.
6. Strengthen home–school collaboration.
7. Evaluate intervention effectiveness.

## **6. Research Questions**

What educational and behavioral challenges were experienced by the learner?

How effective was the IEP in addressing identified needs?

To what extent did interventions improve behavioral, academic, and social outcomes?

What implications emerge for inclusive educational practice?

## **7. Methodology**

A Single-Case Action Research Design was employed. The participant was an 8-year-old male learner with 75% certified intellectual disability enrolled in Government Primary School Kakrana, Una district. Data collection involved structured observations, behavior checklists, IEP records, anecdotal notes, parent interviews, teacher journals, and progress assessment sheets.

The intervention lasted ten months (March 2022–March 2023). Baseline and post-intervention comparisons were used to evaluate progress.

## **8. Baseline Assessment**

Initial assessment indicated significant difficulties in attention, behavior regulation, communication, classroom participation, and social interaction. Average attention span was 2.5 minutes, classroom engagement was approximately 22%, and disruptive behaviors averaged 18 incidents per day. Peer interaction and independent task completion were also limited.

## **9. Intervention Programme**

The intervention programme consisted of six interconnected components:

### **A. Individualized Education Plan (IEP)**

Functional literacy, numeracy, communication, behavior, and adaptive goals were developed.

### **B. Individualized Instruction**

Thirty-minute daily sessions incorporated task analysis, prompting, reinforcement, repetition, and multisensory learning.

### **C. Positive Behavior Support**

Visual schedules, verbal praise, token reinforcement, redirection strategies, and structured routines were implemented.

#### D. Parent Collaboration

Bi-monthly meetings focused on home reinforcement, behavior management, and progress review.

#### E. Classroom Accommodations

Preferential seating, reduced distractions, movement breaks, and activity-based learning were introduced.

#### F. Peer-Mediated Learning

Peer buddies facilitated social interaction, participation, and collaborative learning.

### 10. Results and Analysis

The intervention yielded meaningful improvements across all domains.

Attention span increased from 2.5 minutes to 7 minutes.

Task completion improved from 28% to 65%.

Social interaction increased from approximately 20% to 68%.

Classroom participation improved substantially.

Disruptive behaviors reduced by approximately 56–59%.

Wilcoxon signed-rank analysis indicated statistically significant improvements ( $p < .01$ ) across measured indicators. The overall improvement range was estimated between 52% and 59%, suggesting a strong intervention effect.

### 11. Discussion

The findings align with previous research demonstrating the effectiveness of individualized educational planning and positive behavior support. Improvements appear attributable to the combined influence of structured teaching, reinforcement systems, environmental modifications, peer support, and family involvement.

The results further suggest that inclusive education can be effective even in rural government schools when interventions are implemented consistently. The teacher's role as facilitator, monitor, and collaborator emerged as a critical factor influencing success.

### 12. Educational Implications

The study highlights several practical implications:

- IEPs should be central to educational planning.
- Teacher capacity-building in inclusive pedagogy is essential.
- Parent engagement should be institutionalized.
- Continuous progress monitoring should inform instructional decisions.

- Resource limitations should not prevent implementation of evidence-based interventions.
- Schools should promote peer-support systems and inclusive classroom cultures.

### **13. Limitations**

The single-participant design limits generalization. The absence of a control group restricts causal interpretation. Standardized assessment tools were limited, and long-term follow-up data were unavailable. Researcher involvement in implementation may also have introduced bias.

### **14. Recommendations for Future Research**

Future studies should involve larger samples, multiple schools, and longitudinal designs. Comparative studies across rural and urban settings could strengthen understanding of contextual influences. Mixed-method approaches may provide deeper insight into learner experiences and implementation challenges.

### **15. Conclusion**

This study provides evidence that individualized educational interventions can significantly improve behavioral, academic, and social outcomes for learners with severe intellectual disabilities in inclusive settings. Improvements in attention span, task completion, participation, and social interaction demonstrate the value of systematic, evidence-based support. The findings contribute to the growing body of practitioner research supporting inclusive education in India and provide a replicable model for rural schools.

### **16. Ethical Considerations**

Parental consent was obtained prior to intervention implementation. Confidentiality and dignity were maintained throughout the study. The learner's identity was protected through the use of a pseudonym. Data were used solely for educational and research purposes.

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