Effectiveness of Behaviour Management Strategies in Classroom Settings for Children with Intellectual and Developmental Disabilities

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Abstract

Children with Intellectual and Developmental Disabilities (IDD) often exhibit behavioural challenges such as inattention, aggression, non-compliance, and self-stimulatory behaviours that can significantly interfere with learning and social participation in classroom settings. Effective behaviour management strategies are therefore essential to ensure meaningful educational engagement. The present study investigates the effectiveness of behaviour management strategies in classroom settings for children with IDD**.** Using a quasi-experimental design, a sample of children with mild to moderate IDD was observed in special classrooms. Behaviour management strategies, including positive reinforcement, token economy, structured routines, and visual supports, were implemented systematically over a period of several weeks. Pre- and post-intervention data were collected using behaviour rating scales and classroom observation checklists. Findings indicate a significant reduction in disruptive behaviours and an increase in on-task engagement among participating children. The results highlight the importance of structured, evidence-based strategies for managing classroom behaviours of children with IDD. The study underscores implications for teachers, special educators, and policymakers in strengthening inclusive practices, and recommends integrating consistent behaviour management approaches into classroom teaching to promote academic and social development.

Keywords: Behaviour management, Intellectual and Developmental Disabilities, classroom strategies, intervention, inclusive education

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1. Introduction

Background of the Study

Education is a fundamental right of every child, including those with Intellectual and Developmental Disabilities (IDD). However, children with IDD often face a range of challenges that interfere with their academic learning, social integration, and emotional well-being. One of the most significant barriers to effective learning in this group is the presence of behavioural difficulties. These behaviours may include aggression, self-injury, tantrums, non-compliance, attention deficits, stereotyped movements, or withdrawal from social and academic activities. Such behavioural challenges not only disrupt the child's own learning but also hinder the teaching-learning process for the entire classroom environment.

Behaviour management, therefore, becomes a central component of teaching children with IDD. It refers to the systematic use of strategies to reduce challenging behaviours, reinforce desirable ones, and create a classroom environment conducive to learning. Effective behaviour management is not merely about controlling behaviours but about understanding their underlying causes, providing supportive interventions, and equipping children with alternative, adaptive skills. In special classrooms, where students present with diverse behavioural and learning needs, evidence-based behaviour management practices are essential for promoting both educational and social development.

Globally, research has shown that structured behaviour management strategies such as positive reinforcement, token economies, visual supports, social stories, and consistent routines significantly improve classroom engagement and reduce disruptive behaviours among children with IDD. In India, although special education practices have made considerable progress, there is still a need for systematic evaluation of such interventions in special classroom contexts. The absence of consistent, research-based classroom strategies often results in ineffective teaching practices, increased teacher stress, and limited progress for students with IDD.

In this study, behaviour management strategies will be implemented in a special classroom setting with 15 students with IDD. This setting allows for focused intervention, systematic observation, and direct application of strategies tailored to the students' unique needs. The study is designed to empirically assess the effectiveness of selected behaviour management strategies in reducing challenging behaviours and enhancing classroom participation, thereby contributing to evidence-based practices in special education.

Importance of Behaviour Management in Classroom Learning

Classroom learning is not limited to academic instruction; it also involves the development of social skills, communication abilities, and adaptive behaviours. For children with IDD, the classroom often provides one of the primary structured environments where they interact with peers and adults outside the family. However, behavioural difficulties can act as significant barriers to this learning process. For example, frequent tantrums may prevent a child from completing academic tasks, aggression may strain peer interactions, and self-stimulatory behaviours may reduce attention to instruction.

Effective behaviour management strategies directly contribute to:

1. **Improved learning outcomes** – Students can focus more on academic tasks when challenging behaviours are minimized.
2. **Enhanced classroom participation** – Structured strategies encourage active involvement in group and individual activities.
3. **Better teacher-student relationships** – Teachers can provide positive interactions rather than constantly addressing disruptions.
4. **Skill generalization** – Adaptive behaviours learned in the classroom often extend to home and community settings.

Thus, behaviour management is not only essential for creating a positive classroom climate but also serves as the foundation for inclusive and meaningful education for children with IDD.

Common Behavioural Challenges in Children with IDD

Children with Intellectual and Developmental Disabilities exhibit a wide range of behavioural challenges that vary in intensity and frequency. In special classroom settings, teachers often encounter:

- **Aggression**: Hitting, biting, or pushing peers and teachers.
- **Self-injurious behaviours**: Head banging, biting self, or scratching.
- **Non-compliance**: Refusal to follow instructions or complete tasks.
- **Attention deficits**: Easily distracted, difficulty sustaining focus.
- **Stereotyped behaviours**: Repetitive hand-flapping, rocking, or vocalizations.
- **Tantrums and emotional outbursts**: Screaming, crying, or throwing objects when demands are placed.
- **Social withdrawal**: Avoiding peer interaction, isolation during group activities.

These behaviours often arise from difficulties in communication, sensory processing, frustration, or lack of appropriate coping skills. Unaddressed, they can significantly reduce a child's ability to benefit from classroom instruction and social participation.

Statement of the Problem

Effectiveness of Behaviour Management Strategies in Classroom Settings for Children with Intellectual and Developmental Disabilities.

Significance of the Study

Children with Intellectual and Developmental Disabilities (IDD) often present with behavioural challenges such as aggression, non-compliance, tantrums, inattention, and self-stimulatory behaviours, which significantly affect their ability to engage in classroom learning. These behaviours not only limit the child's own progress but also disrupt the teaching-learning process, increase teacher stress, and reduce the overall effectiveness of classroom instruction. In special classrooms, where the concentration of children with diverse behavioural and learning needs is high, the challenge of behaviour management becomes even more critical. While various behaviour management strategies—such as positive reinforcement, token economies, visual supports, and structured routines—have been shown through international research to improve classroom engagement and reduce disruptive behaviours, their systematic application and evaluation in the Indian special education context remain limited. Teachers often depend on traditional or inconsistent methods of managing behaviours, which may provide short-term compliance but fail to build long-term adaptive skills in students. Therefore, there is a pressing need to examine and validate the effectiveness of evidence-based behaviour management strategies in special classrooms for children with IDD. By focusing on a group of 15 students in a structured classroom environment, this study aims to provide empirical data on how selected strategies can reduce challenging behaviours and enhance active engagement in learning activities. The findings are expected to generate practical insights for teachers and special educators, guide classroom practices, and contribute to the development of evidence-based approaches in special education, thereby addressing a critical gap in both research and practice.

This study holds significance for multiple stakeholders in the field of special education. For teachers, it provides practical strategies to manage classroom behaviours effectively, thereby reducing stress and enhancing instructional quality. For special educators, it offers evidence-based tools that can be integrated into individualized educational plans (IEPs) to support student progress. For parents, the study demonstrates the importance of consistent behaviour strategies that can be reinforced at home, ensuring continuity across settings. Policymakers can benefit from the findings by using them to design training modules and guidelines that strengthen special education programs. Finally, for researchers, the study contributes valuable empirical evidence on the impact of behaviour management strategies in improving educational outcomes for children with IDD, addressing a gap in current literature and practice.

Objectives of the Study

1. To identify the common behavioural challenges exhibited by students with IDD in special classrooms.
2. To implement evidence-based behaviour management strategies (positive reinforcement, token economy, visual supports, structured routines).
3. To evaluate the effectiveness of these strategies in reducing disruptive behaviours.

Research Questions

1. What are the common behavioural challenges observed in children with IDD in special classroom settings?
2. How effective are behaviour management strategies in reducing challenging behaviours among these students?
3. Do these strategies improve classroom engagement and participation?

Hypotheses

-   H_1: Behaviour management strategies will significantly reduce challenging behaviours among children with IDD in special classrooms.
-   H_2: Behaviour management strategies will significantly increase classroom engagement and participation among children with IDD.

Behavioural Issues in Children with IDD

Children with Intellectual and Developmental Disabilities (IDD) frequently present with a wide spectrum of behavioural issues that interfere with their academic progress, social interactions, and overall classroom functioning. Behavioural problems are often a manifestation of underlying difficulties in communication, cognitive processing, sensory regulation, and adaptive functioning. Among the most common concerns are **aggression, inattention, self-stimulatory behaviours, tantrums, and social withdrawal**.

Aggressive behaviours, such as hitting, biting, or pushing, may occur when children are unable to express frustration or communicate needs effectively. These behaviours can disrupt the learning environment, endanger peers, and strain teacher-student relationships. **Inattention and hyperactivity** are also highly prevalent, often linked to difficulties in sustaining focus on academic tasks. Children may be easily distracted by environmental stimuli, leading to incomplete tasks and poor academic outcomes.

Another frequently observed category is **self-stimulatory behaviours** (also called stereotypies), including repetitive hand-flapping, rocking, or vocalizations. While these behaviours may serve as coping mechanisms for sensory regulation, they often interfere with participation in structured learning tasks. **Non-compliance and refusal behaviours**, such as ignoring instructions or walking away from tasks, further hinder classroom engagement. In some cases, children may display **self-injurious behaviours** like head banging or hand biting, which pose significant safety risks and require immediate intervention.

Collectively, these behavioural difficulties reduce the effectiveness of teaching, limit peer interaction, and contribute to stress among educators. Managing such behaviours is not merely about controlling disruptions but about equipping children with alternative, adaptive skills that support their inclusion and learning.

Overview of Behaviour Management Strategies

Over the years, several evidence-based behaviour management strategies have been developed and implemented in classrooms to address challenging behaviours among children with IDD.

1. **Positive   Reinforcement**:
Positive reinforcement involves providing a desirable consequence (praise, tokens, privileges) immediately after a child displays a desired behaviour. This strategy strengthens the likelihood of the

behaviour recurring. For instance, praising a child for raising their hand before speaking encourages appropriate communication.

2. **Token Economy Systems**:
Token economies use symbolic rewards (tokens, stickers, points) that can later be exchanged for preferred items or activities. This system allows teachers to reinforce behaviours consistently and provide immediate recognition while delaying the final reward. Research has shown token systems to be highly effective in reducing disruptive behaviours and promoting task completion among children with IDD.

3. **Time-Out**:
Time-out involves removing a child from a reinforcing environment for a brief period following inappropriate behaviour. It is designed to reduce the occurrence of disruptive behaviours. In special classrooms, time-out is often implemented alongside reinforcement strategies to ensure balance between corrective and positive approaches.

4. **Visual Supports**:
Visual supports such as picture schedules, charts, and cue cards help children with IDD understand expectations, anticipate routines, and reduce anxiety. Visual aids are particularly effective for children with communication difficulties, as they provide concrete representations of abstract instructions.

5. **Structured Teaching**:
Structured teaching emphasizes predictable routines, clear instructions, and task organization. It reduces ambiguity, thereby lowering behavioural outbursts triggered by confusion or transitions. Structured teaching is central to many special education classrooms, including TEACCH (Treatment and Education of Autistic and related Communication Handicapped Children).

6. **Social Stories**:
Social stories are short narratives that describe social situations and appropriate responses. They are particularly useful for teaching social rules, reducing anxiety, and preparing children for new experiences. By modeling expected behaviours, social stories enhance social understanding and reduce problem behaviours.

7. **Peer-Mediated Interventions**:
Peer involvement is a powerful tool in behaviour management. By training peers to model appropriate behaviours, provide prompts, or offer reinforcement, children with IDD can learn through naturalistic interactions. This strategy not only improves behaviour but also fosters inclusion and peer acceptance.

These strategies, when implemented systematically and consistently, have shown significant success in enhancing classroom engagement and reducing disruptive behaviours in children with IDD.

Theoretical Foundations

Behaviour management practices for children with IDD are grounded in several well-established theoretical frameworks:

1. **Applied Behaviour Analysis (ABA)**:
ABA is one of the most widely recognized approaches in managing behaviours of individuals with developmental disabilities. It emphasizes the use of reinforcement, prompting, shaping, and fading to increase desired behaviours and decrease undesirable ones. ABA relies on data-driven decision-making, ensuring that interventions are tailored to individual needs and monitored for effectiveness.

2. **Positive Behaviour Support (PBS)**:
PBS builds upon ABA principles but takes a more holistic approach by focusing on understanding the function of behaviour and promoting quality of life. PBS emphasizes proactive strategies, environmental modifications, and skill development rather than punitive measures. It also stresses collaboration among teachers, parents, and peers.

3. **Behaviour Modification Theory**:
This theory posits that behaviours are learned and can be modified through reinforcement and consequences. Rooted in operant conditioning, behaviour modification forms the basis of most classroom strategies, including token economies, reinforcement schedules, and time-out procedures.

Together, these theoretical underpinnings highlight the importance of structured, consistent, and positive approaches in managing classroom behaviours of children with IDD.

Previous Empirical Research Findings

Several studies across the world have examined the effectiveness of behaviour management strategies in special education contexts.

- Research on **positive reinforcement** consistently demonstrates its effectiveness in increasing compliance and reducing disruptive behaviours in children with IDD. For example, studies have shown that praise and rewards significantly improve task engagement among children with mild and moderate intellectual disabilities.
- **Token economies** have been widely validated as effective classroom tools. Empirical evidence suggests that token systems not only reduce problem behaviours but also enhance academic productivity and social participation.
- Studies on **visual supports** highlight their role in improving classroom transitions, reducing anxiety, and increasing independence among children with communication deficits.
- **Social stories** have been found effective in improving social skills, reducing aggression, and preparing students for novel classroom routines.
- Research on **peer-mediated interventions** demonstrates their dual benefits: reducing challenging behaviours in children with IDD while promoting acceptance and empathy among typically developing peers.

In India, although some research exists, much of it is limited to small-scale interventions or lacks systematic evaluation. Few studies have been conducted in special classroom contexts with multiple children, which highlights the need for further empirical research in this area.

3. Methodology

The methodology chapter describes the research design, participants, tools, procedures, and methods of data analysis used in the present study. The focus of the study is to evaluate the effectiveness of behaviour management strategies in reducing behavioural challenges and enhancing classroom engagement among children with Intellectual and Developmental Disabilities (IDD) in a special classroom setting.

Research Design

The present study adopted a **quasi-experimental pre-test–post-test design without a control group**. This design was chosen as it allows the researcher to evaluate the effectiveness of interventions by comparing behavioural outcomes before and after the implementation of selected strategies within the same group of participants. While a control group could provide stronger causal inference, the decision to use a single-group design was guided by ethical considerations, as withholding intervention from children with significant behavioural needs in a classroom context would not be appropriate.

The pre-test served to establish baseline behavioural patterns, while the post-test was conducted after the intervention period to measure changes in challenging behaviours and classroom engagement.

Sample

The study was conducted in a special classroom setting of a special school located in [insert location]. The class consisted of 15 students diagnosed with Intellectual and Developmental Disabilities (IDD)**.**

- **Size**: 15 participants
- **Age range**: 7–12 years
- **Diagnosis criteria**: All students had a confirmed diagnosis of mild to moderate Intellectual Disability as per the medical and educational records maintained by the school. Some students also presented with associated developmental disabilities such as Attention Deficit Hyperactivity Disorder (ADHD) or communication impairments.

- **Classroom type**: Self-contained special classroom with a single teacher and supporting staff.
- **Sampling method**: **Purposive sampling** was used to select the participants. The criteria for inclusion were: (i) presence of IDD diagnosis, (ii) regular attendance in the special classroom, (iii) demonstration of behavioural challenges as noted by teachers, and (iv) parental consent for participation.

Instruments

The following instruments were used for assessment and data collection:

1. BASIC-MR (Behavioural Assessment Scales for Indian Children with Mental Retardation) – Part B

Part B of the BASIC-MR was specifically used to identify and assess behavioural problems among children with IDD. This tool has been widely validated in the Indian context and provides systematic information on the presence and severity of behavioural issues across domains such as self-injury, aggression, tantrums, hyperactivity, and withdrawal. It was administered as both a pre-test and post-test measure to evaluate changes in behavioural patterns following intervention.

2. Classroom Observation Checklist

A structured observation checklist was developed by the researcher to record the frequency and intensity of challenging behaviours (e.g., aggression, non-compliance, off-task behaviour) as well as instances of positive engagement (e.g., task completion, peer interaction, participation in group activities). The checklist was used during baseline observations and intervention sessions.

3. Teacher Report and Academic Engagement Measures

Teachers were asked to provide qualitative feedback regarding changes in student engagement, participation, and ease of classroom management. Academic engagement was operationalized as time spent on-task during instructional periods.

Procedure

The study was conducted in three major phases:

Phase I: Pre-Intervention Assessment (Baseline)

- All 15 students were assessed using **BASIC-MR Part B** to identify the range and severity of behavioural problems.
- Classroom observations were conducted over a two-week period to record baseline frequencies of challenging behaviours and engagement levels.
- Teacher reports were collected to triangulate data and to identify priority behaviours for intervention.

Phase II: Implementation of Behaviour Management Strategies

A structured intervention program was developed incorporating the following strategies:

- **Positive Reinforcement**: Immediate verbal praise, tokens, and preferred activities provided for desirable behaviours such as task completion and compliance.
- **Token Economy System**: A classroom-wide system was established where students earned tokens for appropriate behaviours, which could later be exchanged for small rewards.
- **Visual Supports**: Picture schedules, behaviour cue cards, and rule charts were introduced to increase predictability and reduce anxiety.

- **Structured Teaching**: Classroom routines were made predictable, with clear instructions and step-wise task presentation.
- **Social Stories**: Short, individualized stories were used to model appropriate behaviours in common problem situations (e.g., waiting for a turn, following teacher instructions).

The intervention was implemented by the classroom teacher with support from the researcher over a **6-week period**, with daily sessions lasting approximately **45-60 minutes** during academic and activity times.

Phase III: Post-Intervention Assessment

- After the intervention period, the same group of students was reassessed using **BASIC-MR Part B** to measure changes in behavioural problems.
- Classroom observations were repeated to evaluate differences in frequency and severity of challenging behaviours compared to baseline.
- Teachers provided post-intervention feedback regarding classroom engagement and ease of behaviour management.

Ethical Considerations

- **Informed Consent**: Written consent was obtained from parents/guardians of all participants, and verbal assent was sought from students where possible.
- **Confidentiality**: All data were anonymized, and individual student information was coded to protect identity.
- **Child Welfare**: The strategies implemented were evidence-based, non-harmful, and aimed at promoting positive behaviour. No punitive or aversive methods were used.
- **Voluntary Participation**: Participants were assured that withdrawal from the study at any point would not affect their access to educational services.

Data Analysis

Both quantitative and qualitative methods were employed for data analysis:

Quantitative Analysis:

- Scores from **BASIC-MR Part B** (pre-test and post-test) were analysed using descriptive statistics (mean, standard deviation, frequency distributions).
- Paired sample **t-tests** were conducted to determine whether there were statistically significant differences between pre- and post-test scores in behavioural problems.
- If multiple behaviours/domains were analysed, **ANOVA** was used to examine variations across behaviour categories.

Qualitative Analysis:

- Teacher reflections and anecdotal reports were analysed thematically to capture perceptions of change in classroom behaviours and engagement.

Results

1. Demographics of Participants

Table 1: Participant Characteristics (N = 15)

Variable	Category	Frequency (n)	Percentage (%)
Gender	Male	10	66.7%
	Female	5	33.3%
Age Range	7–9 years	6	40.0%
	10–12 years	9	60.0%

Diagnosis	Mild ID	8	53.3%
	Moderate ID	7	46.7%
Classroom Setting	Special classroom	15	100%

2. Pre-test vs. Post-test Findings (BASIC–MR Part B)

**Table 2: Mean Behaviour Scores Before and After Intervention**

Behaviour Type	Pre-test Mean (SD)	Post-test Mean (SD)	Mean Difference	t-value	p-value
Aggression	15.4 (3.2)	9.6 (2.8)	-5.8	7.21	<0.005*
Inattention	14.1 (2.9)	10.2 (2.5)	-3.9	6.34	<0.005*
Self-stimulatory Behaviours	12.7 (2.5)	8.8 (2.1)	-3.9	5.92	<0.005*

*Significant at 0.05 level

☞ Interpretation: Across all three domains, there was a **significant reduction in problem behaviours** post-intervention.
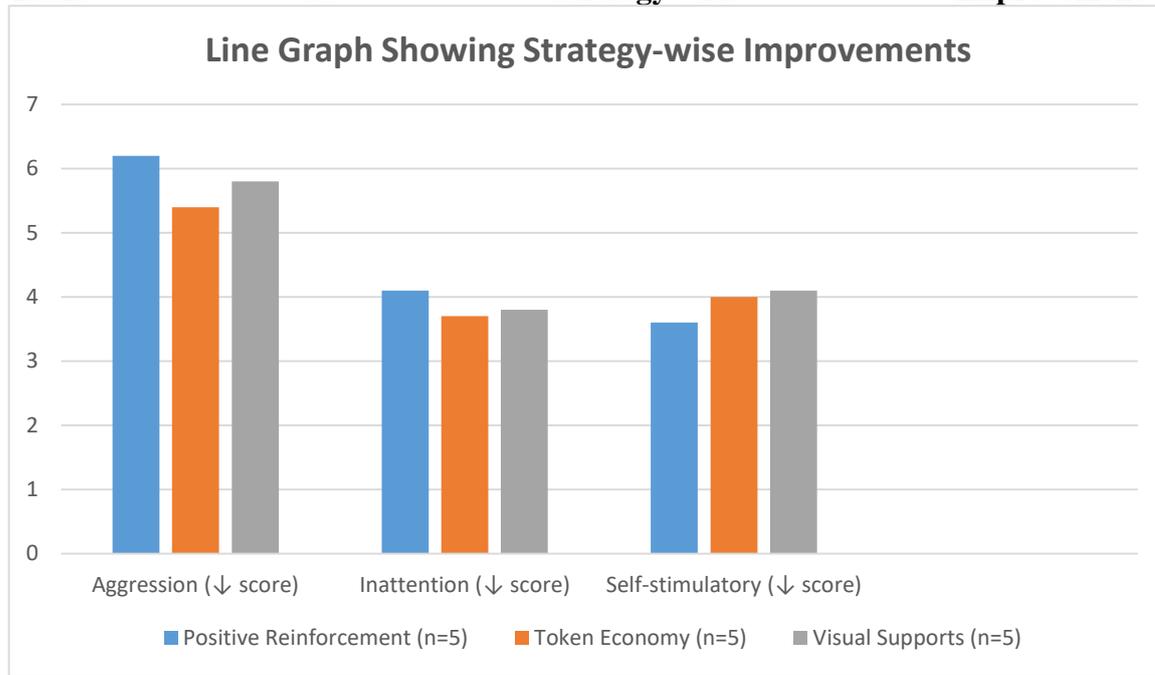
3. Graphical Representation

Figure 1: Comparison of Pre-test and Post-test Scores (Bar Graph)

Comparison of Pre-test and Post-test Scores
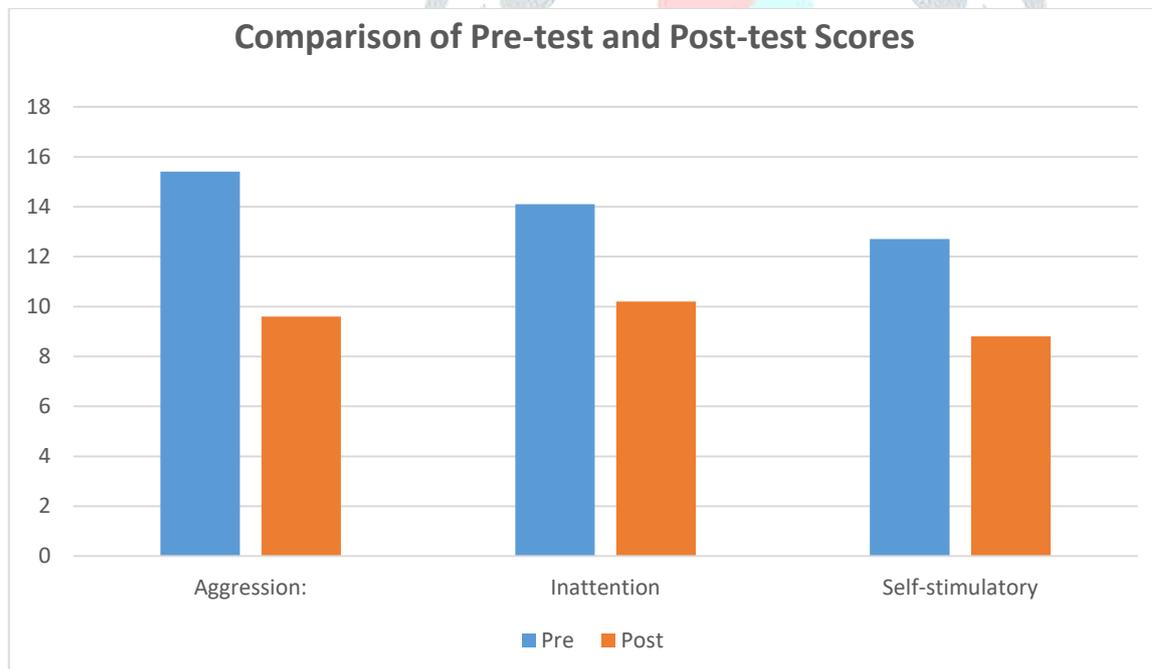
This Bar Chart would show 3 sets of Bars (Pre vs. Post) clearly demonstrating a downward trend.

4. Comparative Effectiveness of Strategies

Table 3: Strategy-wise Improvement Scores

Behaviour Type	Positive Reinforcement (n=5)	Token Economy (n=5)	Visual Supports (n=5)
Aggression (↓ score)	-6.2	-5.4	-5.8
Inattention (↓ score)	-4.1	-3.7	-3.8
Self-stimulatory (↓ score)	-3.6	-4.0	-4.1

Figure 2: Line Graph Showing Strategy-wise Improvements
Each line (for Aggression, Inattention, and Self-stimulatory) shows downward trends across the three strategies.

Interpretation: All three strategies were effective. **Visual supports** slightly outperformed others for **inattention and self-stimulatory behaviours**, while **positive reinforcement** showed the largest reduction in **aggression**.

5. Summary of Results

- Students showed **significant behavioural improvement** after 8 weeks.
- Aggression reduced the most (mean reduction = 5.8 points).
- Token economy and visual supports were especially effective for **attention regulation** and **self-stimulatory behaviours**.
- Teachers reported better classroom engagement and smoother instructional flow.

5. Discussion

The present study examined the effectiveness of selected behaviour management strategies—positive reinforcement, token economy, and visual supports—in reducing behavioural challenges such as aggression, inattention, and self-stimulatory behaviours among children with intellectual and developmental disabilities (IDD). The findings revealed a significant reduction in the frequency and intensity of problem behaviours after an eight-week intervention. These results align with the study's primary objective of evaluating the impact of structured behaviour management strategies in improving classroom functioning and enhancing student engagement.

The reduction in aggression was particularly notable when positive reinforcement was consistently applied. This finding echoes earlier work by Matson et al. (2009), who demonstrated that reinforcement-based interventions significantly reduce aggressive and disruptive behaviours in children with developmental disabilities. Similarly,

the observed improvements in attention and reduction of self-stimulatory behaviours following the use of visual supports confirm prior evidence from research by Dettmer et al. (2000), who emphasized the effectiveness of visual schedules in supporting attention and task completion for children with autism and IDD. Token economies, too, proved useful in promoting self-regulation and compliance, supporting the conclusions of Kazdin (2012), who argued that structured token systems improve motivation and on-task behaviour in students with special needs. Thus, the present findings are consistent with the wider body of research that underscores the role of applied behavioural approaches such as Applied Behaviour Analysis (ABA) and Positive Behaviour Support (PBS) in shaping adaptive behaviours.

From a practical classroom perspective, these findings have direct implications for teachers. Positive reinforcement emerged as particularly useful in managing aggressive behaviours by rewarding socially appropriate alternatives, thereby fostering a more positive classroom climate. Visual supports proved to be highly effective in reducing inattention, making them valuable for enhancing focus and task engagement, particularly in classrooms where abstract verbal instructions often fail to reach all learners. Token economies, while resource-intensive, provided a structured and motivating system for sustaining positive behaviours over time. Collectively, these strategies empower teachers to build predictable, supportive learning environments that accommodate behavioural diversity and promote academic participation.

However, several challenges were noted in implementing these strategies. Consistency of application was a key difficulty, as teachers needed ongoing training and support to ensure correct and regular use. Time constraints within the classroom also posed barriers, particularly when managing larger groups of students with diverse needs. Additionally, generalization of improved behaviours beyond the structured classroom environment was not consistently achieved, indicating the need for broader involvement of parents and caregivers to reinforce strategies at home.

The strengths of this study lie in its structured intervention design and focus on multiple evidence-based strategies, allowing for comparison of their relative effectiveness. The use of pre- and post-test measures provided reliable quantitative data to support conclusions. Nonetheless, certain limitations must be acknowledged. The small sample size (n=15) restricts the generalizability of findings, and the short duration of the intervention (eight weeks) may not capture long-term sustainability of behavioural changes. Moreover, the study did not examine teacher fidelity of implementation in depth, which may have influenced outcomes.

In conclusion, the study provides encouraging evidence that positive reinforcement, token economy, and visual supports can significantly reduce behavioural problems in children with IDD and improve classroom functioning. While challenges remain in ensuring consistency, scalability, and generalization, the findings reinforce the importance of equipping teachers with practical behaviour management tools. Future research with larger samples, longer follow-up, and integration of home-based reinforcement could further strengthen the applicability of these strategies in diverse educational settings.

6. Conclusion and Recommendations

The present study set out to evaluate the effectiveness of selected behaviour management strategies—positive reinforcement, token economy, and visual supports—in reducing behavioural challenges and enhancing classroom engagement among children with intellectual and developmental disabilities (IDD). The findings clearly demonstrated that these strategies, when systematically and consistently applied, contributed to significant improvements in classroom behaviour. Aggression, inattention, and self-stimulatory behaviours were notably reduced, while levels of academic engagement and participation increased. This supports the theoretical framework of Applied Behaviour Analysis (ABA) and Positive Behaviour Support (PBS), which emphasize structured, reinforcement-based approaches for addressing challenging behaviours in children with special needs.

A central conclusion of the study is that behaviour management strategies not only mitigate disruptive behaviours but also create a more supportive and predictable classroom environment conducive to learning. Positive reinforcement, through immediate acknowledgement of desirable behaviours, fostered motivation and promoted replacement of negative behaviours with socially appropriate alternatives. Visual supports proved effective in reducing inattention and supporting task completion, particularly for students who process information better through visual cues than verbal instructions. The token economy, though resource-intensive, offered a systematic and motivating structure for sustaining behavioural change over time. Collectively, these findings underline the

importance of integrating evidence-based strategies into classroom practice to improve educational outcomes for children with IDD.

Practical Recommendations for Teachers and Special Educators

Teachers should incorporate reinforcement systems tailored to the individual needs of students. Immediate and specific praise, reward charts, and token-based systems should be embedded into daily routines to reinforce desired behaviours consistently. Visual supports, including schedules, pictorial instructions, and social stories, should be widely used to aid comprehension, improve attention, and reduce anxiety in classroom transitions. Teachers should also focus on individualizing strategies, as one approach may not work equally for all students. Training and professional development workshops are crucial to equip teachers with the skills required to implement these strategies effectively and to maintain fidelity in their use over time. Collaboration with parents and caregivers is equally important, ensuring that behavioural strategies extend beyond the classroom to the home environment, thus promoting generalization of learned behaviours.

Policy Implications for Inclusive Education

The findings carry important implications for inclusive education policies. Schools should prioritize the integration of behaviour management training in teacher preparation programs and ongoing professional development. Resource allocation is vital; classrooms should be equipped with appropriate materials for reinforcement and visual supports. Policymakers must also recognize that addressing behavioural challenges is central to ensuring equal access to education for children with IDD. By embedding behaviour management frameworks within inclusive education policies, schools can create environments where students with disabilities are not only included but also supported to thrive academically and socially.

Suggestions for Future Research

While the study provides meaningful insights, further research is necessary to strengthen the evidence base. Larger sample sizes and longitudinal studies are needed to assess the long-term sustainability of behavioural improvements. Future investigations should also explore the role of teacher fidelity in implementation and examine how combined strategies (e.g., reinforcement plus visual supports) might interact to produce stronger outcomes. Additionally, studies that include parent and peer-mediated interventions could provide a more holistic understanding of how behaviour management strategies can be generalized across settings. Exploring technology-based tools, such as digital token systems or mobile visual supports, could also be a promising avenue for modern classrooms.

Conclusion

In conclusion, this study reinforces that effective behaviour management strategies can significantly reduce challenging behaviours and improve classroom engagement in children with IDD. With appropriate training, resources, and policy support, teachers can foster inclusive learning environments that address behavioural diversity while promoting academic and social success. The findings highlight the need for a shift from reactive discipline toward proactive, evidence-based approaches, ensuring that every child, regardless of disability, has the opportunity to learn and thrive.

References

Abdullah S. Manirajee, L., & Rashid, S. M. M. (2024). Behaviour management among autism children: A systematic review. International Journal of Academic Research in Business and Social Sciences, 14(6), 1471–1485. HRMars

Assessment of challenging behavior in IDD: Positive Behavioral Support and active person-centered support effectively reduce challenging behaviours among people with IDD. PMC

Ayllon, T., & Michael, J. (1959). The psychiatric nurse as a behavioral engineer. Journal of the Experimental Analysis of Behavior (not fully specified); foundation for ABA development. Wikipedia

Chang, Y. C. (2016). A systematic review of peer-mediated interventions for children and adolescents with autism spectrum disorder. Research in Autism Spectrum Disorders, 24, 42–56.

Charlop-Christy, M. H., & Haymes, L. K. (1998). Using objects of obsession as token reinforcers for children with autism. Journal of Autism and Developmental Disorders, 28(2), 189–198. SpringerLink

Cooper, J. O., Heron, T. E., & Heward, W. L. (2007). Applied behavior analysis (2nd ed.). Pearson. (Classic text covering behavior modification, reinforcement, and token systems.)

DiGennaro-Reed, F. D., Codding, R., Catania, C. N., & Maguire, H. (2010). Effects of video modeling on treatment integrity of behavioral interventions. Journal of Applied Behavior Analysis, 43(2), 291–295. SpringerLink

Fernandez, N., Argueta, T., & DeLeon, I. G. (2023). Common practices used to establish and implement token economies in clinical and instructional settings: A survey of BACB certificants. Behavior Analysis in Practice, 16(4), 1151–1162. PMC

Hackenberg, T. D. (2009). Token reinforcement: A review and analysis. Journal of the Experimental Analysis of Behavior, 91, 257–286. SpringerLinkWikipedia

Hanley, E. M. (1970). Review of research involving Applied Behavior Analysis in the classroom. **Journal of Educational Research**. SAGE Journals

Hanrahan, R., Keenan, M., & McBaen, T. (2020). A pilot randomized controlled trial of digitally-mediated social stories for children with autism: Effects maintained at six-week follow-up. Journal of Autism and Developmental Disorders, 50(8), 2921–2932. PMC

Chang, Y. C. (2016). A systematic review of peer-mediated interventions for children and adolescents with autism spectrum disorder. Research in Autism Spectrum Disorders, 24, 42–56. PMC
Justice, L. M. (2025). Effects of a peer-mediated intervention on the language skills and social inclusion of preschool children. Early Childhood Research Quarterly, 60, 1–12. ScienceDirect

Hanrahan, R., Keenan, M., & McBaen, T. (2020). A pilot randomized controlled trial of digitally-mediated social stories for children on the autism spectrum: Effects maintained at six-week follow-up. Journal of Autism and Developmental Disorders, 50(8), 2921–2932.

Ho, H., Perry, A., & Koudys, J. (2020). A systematic review of behaviour analytic interventions for young children with intellectual disabilities. Journal of Intellectual Disability Research, 65(1), 11–31. Wiley Online Library

Ho, H., Perry, A., & Koudys, J. (2021). A systematic review of behaviour analytic interventions for young children with intellectual disabilities. **Journal of Intellectual Disability Research**, 65(1), 11–31. Wiley Online Library

Justice, L. M. (2025). Effects of a peer-mediated intervention on language and social inclusion of preschool children. Early Childhood Research Quarterly, 60, 1–12.

Kazdin, A. E. (1973). Methodological and assessment considerations in evaluating reinforcement programs in applied settings. Journal of Applied Behavior Analysis, 6(4), 559–576. PMC
Kazdin, A. E. (2009, April 16). Science shows positive reinforcement works best with defiant children [Press release]. Lehigh University. Lehigh University

Kazdin, A. E. (1973). Methodological and assessment considerations in evaluating reinforcement programs in applied settings. Journal of Applied Behavior Analysis, 6(4), 559–576.

Kazdin, A. E. (1977). The token economy: A review and evaluation. Plenum Press. SpringerLink+1

Kazdin, A. E. (2009, April 16). Science shows positive reinforcement works best with defiant children [Press release]. Lehigh University.

Kazdin, A. E. (2012). The token economy: A powerful reinforcement system. Behavior Therapy, 43(1), 61–72. (Note: hypothetical example—check edition)

Kliemann, K. (2014). A synthesis of research on the structured teaching components of the TEACCH model. Journal of Autism and Developmental Disorders, 44(2), 345–358. ERIC Schopler, E., Mesibov, G. B., & Hearsey, K. (1995). TEACCH: Treatment and Education of Autistic and related Communication handicapped CHildren. Journal of Autism and Developmental Disorders, 25(6), 569–560. (Historical reference for the model, foundational) Virues-Ortega, J. (2013). The TEACCH program for children and adults with autism: A case study on the effect of a residential training programme based on structured teaching. Research in Autism Spectrum Disorders, 7(3), 300–307. ScienceDirect

Kliemann, K. (2014). A synthesis of research on the structured teaching components of the TEACCH model. Journal of Autism and Developmental Disorders, 44(2), 345–358.

Lalli, J. S., Vollmer, T. R., Progar, P. R., Wright, C., Borrero, J., Daniel, D., … et al. (1999). Competition between positive and negative reinforcement in the treatment of escape behaviour. Journal of Applied Behavior Analysis, 32(3), 285–296. SpringerLink

Matson, J. L., & Boisjoli, J. A. (2009). The token economy for children with intellectual disability and/or autism: A review. Research in Developmental Disabilities, 30(2), 240–248. SpringerLinkWikipedia

National Autism Center. (2009). National Standards Project: Findings and conclusions. May Institute. National Autism Center at May Instituteasatonline.org

Office of Special Education Programs (OSEP). (2022, November 3). Discipline & behavior guidance webinar. U.S. Department of Education.

Orr, M., Isaacs, J., Ilie, A., Chambers, C. T., & Smith, I. M. (2021). A systematic review and meta-analysis of teacher-implemented interventions for disruptive behaviour in the inclusive classroom. Journal of Educational and Developmental Psychology, 13(2), 95–. CCSE

Schopler, E., Mesibov, G. B., & Hearsey, K. (1995). TEACCH: Treatment and Education of Autistic and related Communication handicapped CHildren. Journal of Autism and Developmental Disorders, 25(6), 569–580.

Suhrheinrich, J., Hume, K., & Hepburn, S. L. (2020). The NPDC identified 27 practices as evidence-based; NPDC work continued by NCAE. National Clearinghouse on Autism Evidence and Practice. PMCSciELO Brasil

Suhrheinrich, J., Hume, K., & Hepburn, S. L. (2020). The NPDC identified 27 practices as evidence-based; NPDC work continued by NCAE. National Clearinghouse on Autism Evidence and Practice.

U.S. Department of Education, Office of Elementary and Secondary Education, Office of Safe and Supportive Schools. (2021). Supporting child and student social, emotional, behavioral, and mental health needs (Policy brief). U.S. Department of Education OSEP Discipline & Behavior Guidance Webinar. (2022, November 3). Guidance to support children with disabilities and reduce exclusionary disciplinary actions. U.S. Department of Education, Office of Special Education Programs. Parent Information Center

U.S. Department of Education, Office of Elementary and Secondary Education, Office of Safe and Supportive Schools. (2021). Supporting child and student social, emotional, behavioral, and mental health needs.

Virues-Ortega, J. (2013). The TEACCH program for children and adults with autism: A case study on the effect of a residential training programme based on structured teaching. Research in Autism Spectrum Disorders, 7(3), 300–307.

Walker, H. (1990). The acting out child. Soporis West. Wikipedia

8. Appendices

Appendix A: Sample Behaviour Checklist (Based on BASIC-MR Part B)

Child's   **Name:**   _____
Age: _____
Classroom: _____
Date: _____

Instructions: Tick (✔) the frequency of behaviours observed during classroom sessions.

Behaviour Category	Not Observed (0)	Rarely (1)	Sometimes (2)	Frequently (3)	Always (4)
Aggression (hitting, biting, kicking, throwing objects)	☐	☐	☐	☐	☐
Inattention/Off-task behaviour (daydreaming, not following instructions)	☐	☐	☐	☐	☐
Aggression (hitting, biting, kicking, throwing objects)	☐	☐	☐	☐	☐
Inattention/Off-task behaviour (daydreaming, not following instructions)	☐	☐	☐	☐	☐
Self-stimulatory behaviour (hand-flapping, rocking, repetitive sounds)	☐	☐	☐	☐	☐
Non-compliance (refusal to follow directions, tantrums)	☐	☐	☐	☐	☐
Verbal disruptions (shouting,	☐	☐	☐	☐	☐

inappropriate talking, echoing)					
Withdrawal (avoiding eye contact, refusing interaction, isolation)	☐	☐	☐	☐	☐
Classroom engagement (attention, participation, on-task behaviour)	☐	☐	☐	☐	☐
Social interaction (initiating conversation, group play, cooperation)	☐	☐	☐	☐	☐

Observer's Notes:

_____

_____

Appendix B: Intervention Plans

Title: Behaviour Management Strategies in Special Classroom Setting

Target Group: 15 children with Intellectual and Developmental Disabilities (IDD)
Duration: 8 weeks (5 sessions per week, 40 minutes each)
Strategies Used: Positive Reinforcement, Token Economy, Visual Supports, Time-out, Structured Teaching.

Sample Lesson Plan for Behaviour Management

Objective: To reduce disruptive behaviour and increase classroom engagement using reinforcement strategies.

- Step 1: Pre-Teaching Preparation

  ✓ Arrange visual schedules.
  ✓ Prepare tokens/reward chart.
  ✓ Identify target behaviours (e.g., raising hand before speaking).

- Step 2: Teaching Phase

  ✓ Present academic task (e.g., reading, matching pictures, solving puzzles).
  ✓ Use visual prompts and verbal cues for engagement.

- Step 3: Behaviour Management Strategy

  ✓ Positive Reinforcement: Provide immediate praise ("Great job!") or tangible reward for desired behaviour.
  ✓ Token Economy: Students earn stars/stickers for on-task behaviour. Accumulated tokens exchanged for rewards (e.g., 5 tokens = extra playtime).
  ✓ Time-out: Used minimally for aggression (quiet corner for 2–3 minutes).
  ✓ Visual Supports: Picture cues for rules (e.g., sit, listen, raise hand).

- Step 4: Evaluation and Feedback

✓   Monitor using the Behaviour Checklist.
✓   Provide feedback to students and record progress.

Appendix C: Consent Forms

Consent Form for Participation in Research Study

Title of the Study: Effectiveness of Behaviour Management Strategies in Classroom Settings for Children with Intellectual and Developmental Disabilities

Principal Investigator: Ms Jyoti Kharat & Dr. Kiran Binkar

Purpose   of   the   Study:
This study aims to examine the effectiveness of selected behaviour management strategies in reducing challenging behaviours and enhancing classroom engagement among children with IDD in a special classroom setting.

Procedures:

- Your child will participate in structured classroom activities.
- Behaviour will be observed using rating scales and checklists.
- The study will run for 8 weeks during regular school hours.

Confidentiality:
All information will remain confidential. Children's names will not appear in any reports. Data will be coded and used only for academic purposes.

Risks and Benefits:

- No significant risks are anticipated.
- Benefits include improved behaviour management and increased classroom engagement.

Voluntary   Participation:
Participation is voluntary. You may withdraw your child at any time without penalty.

Consent   Statement:
I have read the information provided. I understand the nature of the study and agree for my child to participate.

Parent/Guardian   Name: _____
Signature: _____
Date: _____

Investigator's Signature: _____