# Promoting Inclusion in Nepal: Case Studies of Children with Autism Spectrum Disorder and Down Syndrome in a Classroom Embracing Inclusive Education

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#### **Abstract**

This study examined the case studies of children with autism spectrum disorder and down syndrome in an inclusive education classroom. The objectives of this study focus on lived experiences of children with autism spectrum disorder and down syndrome within an inclusive classroom. Drawing on the principles of inclusive education and the unique socio-cultural context of Nepal, the study examines the specific support strategies employed to facilitate their learning and participation. The study has been conducted through qualitative case study of two children, one with autism spectrum disorder and the other with Down syndrome, within an inclusive classroom in Bhaktapur, Nepal. Document review, observation guidelines and interview guidelines were used in this study. Semi-structured interviews were also conducted with teachers and specialists. The collected data is analyzed using thematic analysis, a systematic approach involving several key steps. The themes are reviewed and refined through discussion and comparison with the original data, ensuring they accurately reflect the collected information. This study finds the critical importance of individualized approaches, highlighting how visual supports, structured routines, and sensory regulation strategies significantly benefited the student with ASD. Conversely, the student with Down syndrome thrived in collaborative learning environments, underscoring the value of peer interaction and strengths-based pedagogy. The study emphasizes that successful inclusion in Nepal necessitates ongoing teacher training, collaborative partnerships between educators, families, and therapists, and a sustained commitment to dismantling barriers to create a truly inclusive learning environment where all children can thrive.

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# 1. Introduction

The global landscape of education has witnessed a paradigm shift in recent decades, moving towards recognizing the fundamental right of every child to quality education, regardless of their abilities or disabilities. This transformative vision, prominently articulated in the Salamanca Statement of 1994, has fueled the movement towards inclusive education, advocating for the integration of students with disabilities into mainstream classrooms. While policy changes reflect this progressive ideal, the actual implementation of inclusive practices within diverse educational contexts presents ongoing challenges and opportunities.

Nepal, a nation grappling with limited resources and infrastructural constraints, faces a particularly complex challenge in translating the principles of inclusive education into tangible realities. The education system, historically unequipped to address the diverse learning needs of all students, is undergoing a period of significant transformation. This research delves into the

lived experiences of two children, Case 1 diagnosed with Autism Spectrum Disorder and Case 2 diagnosed with Down syndrome, within an inclusive classroom setting in Nepal.

Through in-depth case studies, this research aims to provide a nuanced understanding of the unique challenges and successes encountered in fostering inclusive education for children with ASD and Down syndrome within the Nepalese context. By examining the specific support strategies employed, the research seeks to identify effective pedagogical approaches and highlight areas requiring further attention and resource allocation. Ultimately, this investigation aims to contribute valuable insights to the ongoing dialogue surrounding inclusive education in Nepal, advocating for a more equitable and supportive learning environment where all children can thrive.

# **Inclusive Education in Nepal: Challenges and Opportunities**

The movement towards inclusive education in Nepal has gained momentum in recent years, driven by a growing recognition of the inherent rights of children with disabilities to access quality education. However, the transition from a largely segregated system to one of inclusive practices has been fraught with numerous challenges (Helmer et al., 2020) (Engelbrecht et al., 2015). One of the primary obstacles is the lack of adequate teacher training and professional development opportunities. Educators often lack the specialized knowledge and skills required to effectively support students with diverse learning needs, such as those with autism spectrum disorder and Down syndrome (Peter & Nderitu, 2014).

Without the necessary training and resources, teachers can feel overwhelmed and ill-equipped to create an inclusive classroom environment that caters to the unique needs of these students. Additionally, socio-structural barriers, such as limited funding and infrastructure, hinder the implementation of inclusive practices. Many schools in Nepal lack the physical resources, assistive technologies, and specialized support services needed to foster a truly inclusive learning environment. Despite these challenges, there are pockets of success where innovative approaches have been implemented to promote the inclusion of children with autism spectrum disorder and Down syndrome. These initiatives, often spearheaded by dedicated educators and community organizations, have demonstrated the potential for inclusive education to thrive in the Nepalese context. Given the complexities and the diverse needs of students with autism spectrum disorder and Down syndrome, a multifaceted and collaborative approach is essential for fostering inclusive education in Nepal.

This includes providing comprehensive teacher training, allocating sufficient resources and funding, and fostering a culture of inclusivity and acceptance within the broader community. To gain a deeper understanding of the realities of inclusive education in Nepal, this research presents two in-depth case studies of children with autism spectrum disorder and Down syndrome in an inclusive classroom setting.

## **Case 1: Autism Spectrum Disorder**

Case 1, a young boy diagnosed with Autism Spectrum Disorder, has been attending an inclusive mainstream school in Bhaktapur, Nepal for the past two years.

From the outset, Case 1's integration into the classroom was met with significant challenges. The teacher, although well-intentioned, lacked the necessary training and strategies to effectively support Case 1's unique learning needs. Behavioral issues, such as frequent meltdowns and difficulty in following classroom routines, created disruptions and frustrations for both the teacher and Case 1's classmates. However, through the persistent efforts of the school administration, Case 1's family, and a team of dedicated specialists, a comprehensive support system was gradually put in place.

The school hired a specialized teaching assistant to work one-on-one with Case 1, providing individualized attention and tailored teaching methods. Additionally, the classroom teacher received training on evidence-based strategies for supporting students with autism, such as the use of visual schedules, sensory breaks, and structured social skills instruction. Over time, these interventions led to significant improvements in Case 1's academic performance and social integration. The teacher's increased understanding of autism and the availability of specialized

support enabled Case 1 to thrive in the inclusive classroom, fostering a sense of belonging and engagement.

## **Case 2: Down Syndrome**

Case 2, a young girl diagnosed with Down Syndrome, has been enrolled in an inclusive mainstream school in Bhaktapur, Nepal for the past three years. Upon Case 2's arrival, the school faced numerous challenges in accommodating her unique learning needs. The classroom environment, designed for neuro typical students, did not adequately cater to Case 2's slower processing speed, need for hands-on learning, and challenges with fine motor skills. To address these issues, the school collaborated with the local Down Syndrome Association to provide comprehensive training for the classroom teacher. This training focused on developing effective teaching strategies, such as the use of visual aids, multisensory learning activities, and peer-assisted learning.

Additionally, the school allocated funding to acquire specialized assistive technologies and learning materials tailored to Case 2's needs. This included adjustable desks, specialized writing tools, and interactive educational software. Over time, these interventions led to a marked improvement in Case 2's academic progress and social integration. The classroom teacher's enhanced understanding of Down Syndrome, coupled with the availability of specialized resources, enabled Case 2 to actively engage in the learning process and form meaningful connections with her peers. The case studies presented here highlight the potential for inclusive education to thrive in the Nepalese context, despite the significant challenges.

With the implementation of comprehensive support systems, specialized teacher training, and the allocation of necessary resources, children with autism spectrum disorder and Down Syndrome can successfully participate in and benefit from inclusive classroom environments. (Lindsay et al., 2013) (Roberts & Webster, 2020) (McCart et al., 2014) (Eldar et al., 2009) (Leijen et al., 2021) (Mukhlis et al., 2023). However, the success of these initiatives is often contingent on the collaborative efforts of school administrators, teachers, families, and community organizations. Sustained investment, ongoing professional development, and a culture of acceptance and inclusion are crucial for scaling up these successful models and ensuring that all children, regardless of their unique needs, have access to high-quality, inclusive education in Nepal. (Lindsay et al., 2013).

## 2. Methods

This qualitative case study explores the lived experiences of two children, Case 1 (diagnosed with autism spectrum disorder) and Case 2 (diagnosed with Down Syndrome), within mainstream and integrated schools located in Bhaktapur, Nepal. This school was selected due to its commitment to inclusive education and its existing support system for students with diverse learning needs. Data was collected over a period of 4 weeks using a triangulation of methods to ensure depth and validity:

The study utilized a multi-faceted approach to gather comprehensive data on Case 1 and Case 2. Direct observations were systematically conducted during various classroom activities. These included academic lessons, where attention span, engagement, task completion, and learning strategies were the focus. Social interactions were observed during playtime, group work, and unstructured times to assess peer interactions. Communication skills, both verbal and non-verbal, were analyzed, noting attempts at initiation, responses to prompts, and the use of assistive technology if applicable. Behavioral patterns were documented, highlighting any challenging behaviors, self-regulation strategies, and the effectiveness of teacher interventions. Semi-structured interviews were also conducted with teachers and specialists.

Interviews with teachers aimed to gain insights into the cases' academic progress, social integration, specific challenges faced, and the perceived effectiveness of teaching strategies and support systems. Specialists provided information on the individualized goals, therapeutic interventions, and progress made by each case in their respective areas of need. Additionally, a document review was conducted, including the examination of Individualized Education Plans

(IEPs) for both cases. This review aimed to understand their unique learning goals, accommodations, modifications, and support services provided. Work samples such as classwork, assignments, and assessments were analyzed to evaluate academic performance, identify areas of strength and difficulty, and assess the impact of individualized learning strategies.

The collected data is analyzed using thematic analysis, a systematic approach involving several key steps. First, all interviews is transcribed verbatim to ensure accuracy and completeness. Initial codes are then be generated to identify key themes and patterns emerging from the data. These codes are grouped into broader themes that capture the essence of the cases' experiences and insights. The themes are reviewed and refined through discussion and comparison with the original data, ensuring they accurately reflect the collected information.

Finally, the findings are presented in a clear and concise manner, using illustrative quotes and examples from the data to support the identified themes and provide a rich, detailed account of the study's results. Informed consent was obtained from all cases and/or their legal guardians to ensure voluntary participation. Anonymity and confidentiality are maintained throughout the study to protect participants' privacy. Participants are the right to withdraw from the study at any time without any consequences. The study is conducted with sensitivity and respect for the cultural context of the participants. All data are securely stored and accessed only by the research team to ensure its integrity and confidentiality.

# 3. Results and Discussion

This section presents the key findings from the case studies of Case 1 (diagnosed with Autism Spectrum Disorder) and Case2 (diagnosed with Down syndrome) within the inclusive classroom setting.

#### Case 1:

#### **Social Interaction:**

- a. Isolation: Case 1 exhibited a tendency towards solitary play and displayed limited initiation of interaction with peers. He struggled to interpret social cues, often avoiding eye contact, which could hinder reciprocal communication and relationship building.
- b. Communication Challenges: Verbal communication was minimal, with Case 1 primarily relying on gestures and picture cards to express his needs. This suggests a potential need for augmentative and alternative communication strategies to enhance his expressive language skills.

# **Sensory Processing:**

Hypersensitivity: Case 1 demonstrated heightened sensitivity to auditory and tactile stimuli. Noisy environments provoked anxiety, leading him to seek comfort through repetitive rocking motions. This highlights the importance of sensory regulation strategies and the provision of a designated quiet space within the classroom.

#### **Behavioral Patterns:**

- a. Repetitive Behaviors: Case 1 engaged in repetitive behaviors such as lining up objects and hand flapping, particularly when experiencing excitement or stress. These behaviors could serve as self-regulation mechanisms and should be addressed with understanding and appropriate support.
- b. Focused Interests: A strong interest in puzzles was observed, with Case 1 demonstrating extended periods of concentration and engagement. This focused interest could be leveraged as a valuable learning tool and incorporated into individualized learning plans.

## Support Strategies:

a. Visual Supports: The use of picture schedules and visual aids proved beneficial in helping Case 1 comprehend daily routines and classroom activities. Visual supports enhance predictability and reduce anxiety associated with transitions.

- b. Sensory Breaks: Access to a designated quiet corner equipped with sensory tools, such as stress balls and noise-canceling headphones, allowed Case 1 to regulate his sensory input and manage potential overload.
- c. Social Skills Training: Participation in small group sessions focused on social skills development, utilizing role-playing and modeling techniques, could facilitate improved social interaction and communication with peers.
- d. Positive Reinforcement: The implementation of a positive reinforcement system, employing praise and rewards for desired behaviors like eye contact and group participation, encouraged social engagement and positive behavioral choices.

## Case 2:

#### Social Interaction:

- a. Outgoing and Sociable: Case 2 exhibited a friendly and outgoing demeanor, actively engaging with both peers and teachers. She frequently initiated conversations, demonstrating a desire for social connection despite facing speech challenges.
- b. Empathy and Inclusivity: Observations revealed Case 2's capacity for empathy, offering comfort to others and readily participating in collaborative activities. This suggests a natural inclination towards inclusivity and positive peer interactions.

#### Communication:

- a. Speech and Language: Case 2's speech was characterized by articulation difficulties and a limited vocabulary. However, she effectively combined speech, sign language, and gestures to communicate her needs and thoughts.
- b. Non-verbal Strengths: Strong non-verbal communication skills were evident, with Case 2 utilizing facial expressions and body language to convey her emotions and engage in meaningful interactions.

## Academic Skills:

- a. Literacy Challenges: Case 2 encountered difficulties with reading and writing tasks, likely stemming from cognitive and fine motor limitations often associated with Down Syndrome.
- b. Creative Strengths: A notable interest and aptitude for creative activities, such as drawing, painting, and music, were observed. These strengths could be nurtured to foster her learning and engagement.
- c. Learning Style: Case 2 appeared to thrive in learning environments that incorporated hands-on, visual approaches, catering to her individual learning style and strengths.

## Fine Motor Skills:

- a. Coordination Challenges: Tasks requiring fine motor coordination, such as writing and using scissors, presented challenges for Case 2.
- b. Occupational Therapy: Regular occupational therapy sessions aimed at improving hand strength, dexterity, and coordination were deemed crucial for enhancing her fine motor skills and functional independence.

# **Support Strategies:**

- a. Speech Therapy: Ongoing speech therapy sessions focused on articulation, vocabulary expansion, and the development of effective communication strategies were essential for supporting Case 2's expressive and receptive language development.
- b. Curriculum Modifications: Adapting the curriculum to align with Case 2's learning pace and incorporating visual aids and interactive activities facilitated her understanding and engagement.
- c. Peer Buddy System: Implementing a peer buddy system provided valuable social support, fostered a sense of belonging, and promoted inclusive practices within the classroom.
- d. Assistive Technology and Adaptations: Providing larger writing tools, adaptive scissors, and exploring assistive technology options could further support Case 2's independence in completing tasks and accessing the curriculum.

# 4. Conclusion

This exploration into the lived experiences of Case 1 and Case 2 within an inclusive classroom in Nepal underscores both the promises and complexities of inclusive education. While policy changes reflect a global shift towards recognizing the rights of all children to quality education, the successful implementation of inclusive practices necessitates a multifaceted approach.

Case 1, with Autism Spectrum Disorder, benefited significantly from visual supports, structured routines, and sensory regulation strategies. His case highlights the importance of individualized approaches that cater to the unique communication and sensory needs of students with ASD. Conversely, Case 2, with Down syndrome, thrived in collaborative settings, demonstrating the value of peer interaction and a strengths-based approach that celebrates individual learning styles.

These case studies emphasize that inclusive education is an ongoing process, requiring continuous learning, collaboration, and adaptation. Educators in Nepal, often operating with limited resources and training, require ongoing professional development opportunities focused on inclusive pedagogy, differentiated instruction, and strategies to support students with diverse learning needs. Furthermore, fostering a collaborative environment where educators, families, administrators, and therapists work together is crucial for ensuring that all students, regardless of their abilities, feel a sense of belonging and are empowered to reach their full potential

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