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Author (s): Misbah Waqar


Affiliation (s): Allama Iqbal Open University, Islamabad, Pakistan

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Facilitating Mainstream Inclusion: Evidence from Customized Training for Children with Intellectual Disabilities

Misbah Waqar*

Army Special Education Academy Rawalpindi, Pakistan
Allama Iqbal Open University Islamabad, Pakistan

Abstract

Inclusive education promotes the integration of students with special needs alongside their peers in regular classrooms, fostering both social and academic development. While enrollment in mainstream schools is a foundational step, effective inclusion requires continuous monitoring, strategic planning, adequate resources, and dedicated support. This longitudinal study explored the impact of customized training programs on the integration of children with intellectual disabilities into mainstream schools. The study involved 15 students and employed both formal and informal assessments to evaluate individual progress. Each student was supported through a personalized Individualized Education Plan (IEP), tailored to their specific needs. Detailed performance outcomes were documented through case studies. Following a phase of pre-inclusive classes, most students demonstrated cognitive improvement, and were successfully reintegrated into mainstream classrooms with improved behavioral control. Follow-up assessments were conducted post-integration to monitor long-term outcomes. This research highlights the effectiveness of modified instructional strategies and aims to inform both regular and special education teachers on best practices for facilitating inclusive education, ultimately supporting the full societal participation of students with intellectual disabilities.

Keywords: customized training, inclusive education, customized training, intellectually delayed children

Introduction

Inclusive education ensures all students receive age-appropriate general education classes in local schools, with teachers providing excellent instruction, interventions, and support for core curriculum success (Alquraini & Gut, [2012](#); Bui et al., [2010](#)). Inclusive preschool education is

*Corresponding Author: misbahwaqar333@gmail.com

crucial for creating an equal learning environment for all children, regardless of skills or origins. This approach ensures equitable access to high-quality education and facilitates the integration of disabled children with developing peers (Muhiddinova, [2025](#)).

Students with impairments are considered competent in both classrooms and schools, and the legislation promoting least restrictive environments (LRE) ensures full participation. General education is the primary right of all students, ensuring relatability between disabled children and their non-disabled peers (Alquraini & Gut, [2012](#)). Fuchs et al. ([2025](#)) challenge the notion that inclusive education benefits all children with impairments, suggesting that a one-size-fits-all approach may not be sufficient, and instructional strategies must be tailored to each student's unique profile.

Inclusive education focuses on accepting and understanding student differences, including physical, cognitive, academic, social, and emotional aspects. It should be grounded in collective acceptance, with the support of adults, including regular and special education teachers, staff, faculty, and parents. Research-based evidence supports the benefits of inclusive education and inclusive classrooms, making it a growing trend. Studies over the past three decades show that inclusive education benefits both students with and without disabilities, leading to higher achievement and skill improvement, academic gains in literacy, math, and social studies, improved communication, and social skills (Alquraini & Gut, [2012](#); Bui et al., [2010](#); Dupuis et al., [2006](#); Newman, [2025](#)).

More classroom time leads to fewer absences and disruptive behavior, possibly due to higher self-concept and motivation. Inclusive classrooms benefit students with disabilities by fostering positive attitudes, academic gains in reading and math, and providing new learning opportunities. Teachers can serve as peer-coaches and provide instruction in various modalities, benefiting both regular students and those with special needs. Research shows that instructional time and student engagement do not differ between inclusive and non-inclusive classrooms. Students often report little awareness their peers with disabilities, but when there is awareness, they demonstrate more acceptance and tolerance (Bui et al., [2010](#); Dupuis et al., [2006](#)). Newman, ([2025](#)) stated that important insights on perception in inclusive settings may be obtained from future studies that integrate interactive group activities with shared classroom

experiences.

Qvortrup and Rasmussen (2022) argue that inclusion in education should be viewed as encompassing all children, not just those with special needs. They propose a three-dimensional operational definition of inclusion, focusing on its different levels, different types of social communities, and different degrees of inclusion or exclusion. This comprehensive matrix definition aligns with the current understanding of inclusion in education (Lewis et al., 2006). Inclusive education ensures equal opportunities for all learners, including intellectually disabled students, promoting academic achievement, social interactions, and emotional well-being. Successful inclusion requires a structured approach tailored to individual needs. Research suggests that structured learning environments, tailored lesson plans, and early interventions are beneficial for intellectually disabled children. However, mainstream schools struggle with successful integration due to inadequate resources and training. This study suggests tailored pre-inclusion training can improve behavioral control, academic preparedness, and ability to adjust to mainstream school settings. This study evaluates the impact of customized training on the integration, academic progress, and behavioral development of children with intellectual disabilities in mainstream classrooms. It aims to provide actionable insights for educators, policymakers, and stakeholders seeking to implement inclusive practices more effectively in mainstream education systems, despite the lack of empirical evidence on the long-term effectiveness of such interventions. The study utilizes Vygotsky's Sociocultural Theory and Zone of Proximal Development principles to support children with intellectual disabilities. Vygotsky's theory can be effectively applied in pre-inclusion training courses to assist students with intellectual disabilities, fostering inclusive and equitable learning environments and enhancing their preparedness for mainstream education (Dey et al., 2014).

Co-teaching, tailored instruction, and Universal Design for Learning (UDL) were found to be essential elements in an examination into successful inclusive education practices. It was discovered that these strategies, when backed by ongoing professional development and cooperative planning among teachers, made it easier for children with disabilities to be successfully included in regular classes (Aftab et al., 2024). It suggests customized training programs and flexible learning

environments. The research emphasizes the importance of inclusive education, curriculum, and teaching strategies, providing actionable insights for educators and policymakers.

Objective of the study

The objectives of the study are:

- To assess the effectiveness of customized training programs in supporting the integration of children with intellectual disabilities into mainstream educational settings.
- To examine the present performance levels of children with intellectual disabilities following the completion of the training intervention.
- To evaluate the sustained impact of the training on the children's academic and social adaptation after transitioning to regular school environments (follow-up assessment).

Research Questions

- What is the role of customized training in enhancing the readiness of children with intellectual disabilities for successful inclusion in mainstream classrooms?
- How does customized training influence the academic performance and behavioral development of children with intellectual disabilities?
- To what degree is the progress achieved through customized training maintained after the children's integration into regular school settings, as measured by follow-up evaluations?

Methodology

Research Design

This research employed a longitudinal case study design to explore the impact of customized training on the integration of children with intellectual disabilities into mainstream schools. A total of 15 students were selected and individually assessed using both formal and informal tools to establish baseline performance levels. Each student received a personalized training program based on an Individualized Education Plan (IEP), tailored to their specific cognitive and behavioral needs. The longitudinal nature of the study allowed for the observation of

developmental changes over time, providing in-depth insight into both short-term outcomes and long-term effects of the training program. Data was collected and analyzed through case studies, offering a detailed understanding of each child's growth and integration journey.

Population and Sample

The population of the study was comprised of students who had been enrolled in a special school for last 10 years. They were drop outs from regular schools due to their slow progress or lack of accomplishments in the class. 15 students were selected as sample.

Data Collection Tools

Following tools were used in the study: observation checklist, feedback performa of parents, formal assessment (monthly and biannual assessment).

Observations were taken during regular classrooms, while feedback was taken from parents. Formal assessment was taken at the end of month and at the end of the session. Finally, a proper exam was conducted at the end of the session that is conducted biannually.

Data Collection & Data Analysis

Data was collected through observation, feedback of parents and end term assessment exams. Participant wise analysis was reported. Thematic analysis was used to compile the results.

Results

Case 1

Demographic Background

An autistic child with high level functioning: He got admission in 2009; he was 4 years old at the time of admission. His Father was a serving officer, while his mother was a house wife. He had 2 sisters. His birth order was ½. The child was restless, with isolated behavior and did not communicate verbally. He showed a stereotypical autistic behavior with no sitting, and no concentration. He was shifted to pre inclusive class as a challenger by the administration. The researcher was also observing the child. He was crying all the time and was not willing to sit in the class. The researcher accepted and started working on him from the very first

day. Following areas were focused

- Communication skills (one to one communication at sentence level)
- Concentration & attention span (5 min)
- Sitting span (15 min in one sitting)
- Cognitive skill (analysis, synthesis)
- Academic skill (independent writing, book reading, basic mathematical skill)

Intervention

His sitting was arranged alongside the teacher. The teacher engaged him in beads/block activity to increase attention and sitting span. He was nonverbal so the class teacher set the goals of communication with the consultation of speech therapy, and communication skills were also focused in the class. Communication skill goal was implemented through storytelling, rhymes, and daily life conversation. He took interest in activities so his cognitive skill planning was through play and puzzles. His academic skill was focused with mild modification in curriculum, teaching strategy, and a modified evaluation criterion. i.e minimizing the topics in unit, including basic concepts, planning worksheet and board activity for him rather than traditional method (classwork & homework) on notebook. For the assessment, MCQ's and short question method was used to assess the concept, and grading (superb, excellent, and marvelous) was preferred instead of marks. THE EDUCATOR Syllabus of Play group, Nursery, K.G was followed during his stay of four years in this institute.

Case 2

Demographic Background

His Father held an administrative job in Quaid e Azam University Islamabad and his mother was a house wife. He had 3 sisters. He was studying in class 2 in Siddique Public School, satellite town, Rawalpindi. The regular teacher told the parents that he couldn't cope up with classmates and he had problems with learning and understanding. He was recommended for a special school. When he got admission in this institute in 2008, he was placed in pre inclusive class by the administration. The teacher assessed him with learning problems (dyslexia, dysgraphia) and

enlisted his weak areas.

- Stubborn Behavior
- Talkative
- Dysgraphia (difficulty in writing)
 - Sentence structure
 - Spacing problem
 - Spelling mistake
 - Sequencing of sentences
- Dyslexia (difficulty in reading skill)
 - Pronunciation error
 - Word recognition
 - Reading aloud
 - Afraid of lengthy paragraph
- Concentration

Intervention

The teacher prepared IEP for academic areas specifically. Modified syllabus and modified instructional strategies were used to fulfill the goals of IEP.

For reading skills, different techniques were used. i.e

- Pictorial story book with one sentence on one page.
- Paper stripes were used to read out 2/3 sentences at a time.
- Scale was used to focus on sentences.
- Hollow stencils were used for word recognition.
- Typed material in broad writing with visible spacing was used.
- Intervals were given.
- Short passages were given for reading.
- The sentences were highlighted for reading

- Colored markers were used to underline and words were written on the board for proper recognition.

For writing skills

- Spacing technique was used by putting finger after one word.
- Dots were marked on note book for writing.
- Lines were mentioned on note book or writing board for proper spacing and sentence formation.
- Short answers were formulated.
- Written material was provided in points or bullets for easy understanding.
- Worksheets with pictures were used.
- Practical method was used to comprehend the concept of ordering, sequencing, time, money, and measurement concepts instead of traditional methods
- Calculator was used for lengthy calculations.
- Finger concept was given to learn tables.
- Small toy shop was arranged in the class to give the concept of money handling, purchasing, and selling.
- Worksheets/Time app was used to give the concept of time.
- Word problems were managed through practical activities
- Mini assignments were given to reduce stress.

Meanwhile his behavior was also focused. Sometimes he showed stubborn behavior. He was not willing to do work and wanted to play all the time. So, short intervals were given after each period for playing and outdoor activity. He liked to use the computer, so it was used as a reinforcer; after completing written work he was allowed to use the computer for 15 minutes.

Case 3

Demographic Background

Child is diagnosed with ADHD. He enrolled in the school in 2007. His father was a Havaladar and his mother was a house wife. He was a restless and stubborn child. He was very talkative and abrupt in communication skills. Meanwhile he was good in academic skills. He was a sharp learner and completed the given task quickly. The teacher observed that there was a need to keep him busy in academics and related activities.

Intervention

The teacher prepared IEP for academic areas specifically. Modified syllabus and modified instructional strategies were used to fulfill the goals of IEP. Meanwhile the teachers taught him moral and social etiquettes to manage his behavior. The teacher gave him incentives for doing extra classwork and for prolonged sitting.

Case 4

Demographic Background

The child had mild intellectual disability with low vision. He got admission in 2009; he was 9 years old at the time of admission. His Father was working abroad and his mother was a teacher in public sector. He had 1 sister. He was the younger one. The child was naughty and restless. He was not taking interest in academics. He liked to play all the time in the ground. He was interested in computer and painting class.

Intervention

The teacher started working on him keeping his interests in view. A computer was placed in the class for him. A painting setup was also arranged outside the class. When he completed the writing and reading task of one subject, the teacher allowed him to use the computer or painting supplies on alternate basis.

Case 5

Demographic Background

The child was diagnosed with mild to moderate level of intellectual disability. He got admission in 2011; he was 11 years old at the time of

admission. His father was a serving officer and his mother was a house wife. He had 2 sisters and 1 brother. He was the younger one. The child was stubborn, possessive and had learning problems.

Intervention

He took interest in computer. The teacher allowed him to use computer when he behaved properly. The teacher involved him in group activities for sharing things and to learn the work together.

Case 6

Demographic Background

The child was diagnosed with attention deficit hyperactive disorder (ADHD). He got admission in 2010; he was 11 years old at the time of admission. His father was employed in the private sector and his mother was a teacher. He had 2 sisters. The child had learning difficulties along with attention seeking behavior. He created disturbance all the time in the class. He wasted his energy in abrupt talk and disturbed others without any reason.

Intervention

The teacher prepared his IEP keeping his challenges in view. She started working on his behavior as well. She tried to keep him busy in physical activities and gave reinforcement when he behaved well.

Case 7

Demographic Background

Child having learning difficulties. He got admission in 2017; he was 11-year-old at the time of admission. His father was a businessman and his mother was house wife. He had 2 sisters. The child was shy and isolated. He was studying class 2 syllabus when he shifted to special school and was placed in pre inclusive class. He was lazy and reluctant to perform any task.

Intervention

The teacher started a reading circle in the class and involved him in the announcement activity. He told the class about the date, day and weather. The teacher engaged him in badminton, and other athletics to counter his laziness. She planned short questions, MCQs, and worksheets for the

concept clarity and applied practical method for social studies, science and Islamiat syllabus.

Case 8

Demographic Background

ADHD with speech difficulty. He got admission in 2018; he was 5 years old at the time of admission. His Father was employed in private sector and mother was a house wife. He was restless, possessive and talkative. He would start screaming if his desire was not fulfilled. He also had speech problem.

Intervention

His seat was arranged next to the teacher. His teacher would intervene whenever he exhibited any inappropriate behavior. She involved him in the board activity i.e puzzle fixing/writing on the white board. She helped him in writing and reading skills. After some time he was independent in academic skills and he used the white board to rewrite his written task independently. At the start he was possessive and never shared puzzles, blocks, or the board with his class fellows. Gradually, he learned to share the things. She kept him busy in coloring, drawing, and playdough activities to improve concentration and develop sitting.

Case 9

Demographic Background

The child was diagnosed with autism. He got admission in 2012; he was 10 years old at the time of admission. He had echolalia, used abusive language, and was disruptive to supporting staff (bus driver, sweeper). He was always involved in hitting, and beating youngsters. The trigger for violence was often a verbal or physical interaction among children. His aggressive behavior posed a risk to others, and he had a history of serious incidents that had resulted in injuries to his peers. His diet was comprised of sweets and junk food. He was studying class 1 syllabus when shifted to special school.

Intervention

The teacher discussed the case with a psychologist in 2013, the parents were called and counseled, dietary advice was given to them and they were referred to a psychiatrist for medication. However, parental support

& cooperation was non-existent so at the start of the intervention, the teacher felt no improvement in the child. Meanwhile, she was working on his abusive and abrupt language in the class using marks technique as token economy. The teacher placed him in a group of 4 students with minor behavior problems. Appreciation grades reduced when he started abusing. To address his habit of hitting, his free time computer privileges were revoked. Separate seating was arranged for him. He could not tolerate being teased, poked, touched, or controlled by anyone. He had been exhibiting aggressive behavior when left unsupervised. It was decided to change his routine. Different activities were carried out according to a specific time table. Physical exertion was made part of his routine. Written work was reduced & skill training time was increased. The teacher involved him in kitchen cleanliness, gardening, baking, and car washing activities. He was good in math so the teacher engaged him in money handling, and measurement activity. He also learned the concept of time.

Case 10

Demographic Background

The child was diagnosed with cerebral palsy. He got admission in 2007; he was 8 years old at the time of admission. His father was a retired Havaladar and his mother was a house wife. The child was stubborn and shy, and had speech problem as well as learning difficulty. He was disobedient and a source of concern for his parents, and he also showed a lack of interest in his studies.

Intervention

His teacher started working on him according to his presenting complaints. She planned technology related activities, worksheets and practical task for him. She involved him in sports activities and group tasks to strengthen his social interaction and eliminate shyness. She involved him in rhymes/poem singing competition. She taught him measurement skills, money handling and time concept as practical life skills.

Case 11

Demographic Background

The child had cerebral palsy with speech problems. He got admission

in 2011, he was 8 years old at the time of admission. His father was a retired soldier and his mother was a house wife. The child had speech problems with learning difficulty. He didn't take interest in studies. Due to his drooling problem, nobody involved him in any activity.

Intervention

The teacher consulted a speech therapist and gave him a home plan to control drooling. She involved him in sports activities, tableaux, taught him money handling and time concept as practical life skills. She involved him at the tuc shop for buying and selling practice. Meanwhile, he was studying class 1 syllabus. A transition plan was prepared for him. The teacher guided the parents about his skills and informed them that he was trained to work at a shop.

Case 12

Demographic Background

The child was diagnosed with ADHD. He got admission in 2010; he was 9 years old at the time of admission. His Father was serving in army and his mother was a house wife. He had 1 brother. The child was restless, stubborn and had learning problems. When he was shifted to pre inclusive class, his sitting was not developed and he was not willing to do any task in the class. He was abrupt in speech and laughed all the time.

Intervention

First of all, the teacher started working on his sitting habit. He liked coloring, so the teacher engaged him in drawing, and arts and craft activities. Later on, she shifted him to the academics. He only copied the given text. The teacher engaged him in practical training. He took interest in a tablet and played games all the time. The teacher utilized his interested gadget and trained him in time and money handling by using the tab. He learned time concept quickly by using tablet.

Case 13

Demographic Background

The child had an intellectual disability. He got admission in 2008; he was 7 years old at the time of admission. His father was retired from army and his mother was a house wife. He had 1 brother and 1 sister. The child had learning problems. When he was shifted to pre inclusive class since he

was not able to write alphabets and numbers. His cognitive skill was also not good.

Intervention

The teacher focused on his studies and cognition. She taught him recognition of basic concepts (color, shapes, and house hold chores), classification (animal, birds, fruits, vegetables, and transports), dimensions (big/small, short/ long, thick/thin) etc. He studied syllabus up to class 2.

Case 14

Demographic Background

The child was diagnosed with Down Syndrome. He got admission in 2010; he was 9 years old at the time of admission. His Father was ex-army officer and his mother was a house wife. He had 1 brother. The child was isolated, shy and didn't interact with his peers. He disturbed his family members also at home. He showed stubborn behavior and used tablet all the time.

Intervention

The teacher asked him to bring his tablet in school and play with his peers. He became friendly due to this activity. The teacher installed talking calculator in his tablet and taught him to operate. She involved him in morning meeting, functions and sports activities.

Case 15

Demographic Background

The child had cerebral palsy. He got admission in 2012; he was 7 year old at the time of admission. The child had learning problems. When he was shifted to pre inclusive class, his sitting was not developed., although his oral skill was strong.

Intervention

The teacher taught him class 1 syllabus and trained him in money handling. Practical training was given to him. Tuck shop was arranged in the class and the teacher trained him in selling and buying the grocery items.

Table 1
Overview of Case Findings

Case	Results	Conclusion
Case 1	<p>After getting training and education from Pre-Inclusive class, he was able to do one to one communication and could read 5-7 sentences independently. He had participated in speech on annual function of the school. The topic was disability awareness. His mathematical ability and cognitive skill were enhanced. He loves to do hands on activities and he became a creative learner. He became social and was studying class I syllabus (The Educator) when he shifted to Army Special School Bhawalpur. Now, he is studying in class VI APS Mangalla.</p> <p>After this modified program he was able to manage himself in academics and behavior. He had learnt how to manage difficulties faced in academia. He won 3rd prize in speech contest in PNCA with regular intermediate students. He participated in sports activities and won many prizes in various games. He was recommended by the teacher to spend time with his grandfather in his grocery shop to learn the concept of measurement and money handling. He was the helping hand of his grandfather. The teacher also asked him to read stories in the newspaper (bachu ka safha). He became habitual to read newspaper. His father exclaimed that Shahzaib has started reading the newspaper to him at breakfast, saving him the time to do it himself. After 3 years, he went back to the same school in class 5 in 2011. Now he is student of BA in Gardon College.</p>	<p>Child joined a main stream school and became independent in his studies</p>
Case 2	<p>After this modified program, he was able to manage himself in academics, and improve his behavior.</p>	<p>The child rejoined mainstream school and now he is the owner of his business</p>
Case 3	<p>He had learnt how to keep himself busy in healthy activities. He was studying class V syllabus when his father was posted to Murree in 2011. Now, he is in Gov College Murree.</p>	<p>He excelled in his studies and passed matric</p>

Case	Results	Conclusion
Case 4	After getting training and education from Pre-Inclusive class, he was able to focus on his studies, his computer and his art skills were also enhanced. He was studying 8 th class syllabus when he went back to his village. He joined 9 th class in Govt Boys School Gujranwala. Now he is serving in IT department in a private organization in Gujranwala.	He is a graduate now and performing the duty of lab assistant in a Government school
Case 5	After getting training and education from Pre-Inclusive class, he was able to share things with others, and tolerate others. He learned to behave patiently. His academic skill was also improved. He was studying class 2 syllabus when his father got posted elsewhere.	He became independent in academic skills
Case 6	After getting training and education from Pre-Inclusive class, he was able to perform his tasks quietly. He has learnt to work in groups with other students and cooperate with everyone. He was studying class 4 syllabus when he shifted to F.G school Lalazar. Now, he is performing runner job in DHQ Rawalpindi.	He has learnt basic education and he is performing the runner job currently
Case 7	After getting training and education from Pre-Inclusive class, he went back to regular school in class 4. He was confident and had social interaction with his peers.	His academic skills improved and he rejoined a mainstream school
Case 8	After getting training and education from Pre-Inclusive class, he was able to do one to one communication and became independent in reading and writing, and could attempt a paper without any prompt. Now, he is studying in class 1 in a regular school.	He became independent in academic skill
Case 9	After getting training and education from Pre-Inclusive class, he sits with his class fellows and never disturbs/hits others. He has learnt to keep himself busy in healthy activities under supervision. He was able to perform household chores independently. He has learnt money handling and deals with customers at his brother's shop.	He has learnt functional skills and is performing the duty of assistant at his brother's shop

Case	Results	Conclusion
Case 10	He was studying class 1 syllabus; his computer skills were improved. He has learnt money handling.	He was serving in McDonald last year, took orders and managed money there
Case 11	Parents implemented on teacher's suggestions and established their own setup of barbecue. He helps in preparing tikkas and with money management.	He has learnt time concept and money handling
Case 12	After some time, he was able to train his class fellows in time concept. He took interest in art, painting, and baking. He spent time in this institute as a helper for 1 year. He was a teacher's assistant and helped manage the class, and kept engaging students in painting and time concept activity via tablet. Due to his involvement, the rest of the students learnt to work in a group and developed social interaction.	He was performing the duty of monitor in the class and learned functional academic skills
Case 13	He was able to write tables, learned to solve sums with the help of calculator, could write 3 sentence essays, his name, and phone number. He could narrate his name, father's name, home address. His cognition was better after the teachers were done working on him. Now, he is performing the duty of helper in the same institute. He can recognize location, names and colors. He hands over files to the teachers by recognizing the colors of the files. He interprets messages properly.	He is performing the duty of runner, his cognitive ability has improved.
Case 14	He solved addition, subtraction, multiplication sums with the help of talking calculator. He became social due to engagement in sports activities. Now, he is performing as an assistant.	He has learnt functional academic skills and is doing the job as an assistant.
Case 15	He was able to manage money independently. He was running the tuck shop of the institute without any assistance. Due to his good communication, he was involved in runner duty. He is continuing to perform the duty of runner till now.	He is independent in functional skills and is able to perform the duty of runner

The specialized education program successfully transitioned all children with intellectual disabilities back to mainstream schools, demonstrating its effectiveness in developing functional academic, social, and emotional skills.

The program significantly enhanced children's academic skills, promoting literacy, numeracy, and life skills, fostering independence and self-confidence, enabling full participation in education.

The program facilitated children's development of daily living skills, promoting self-esteem, healthy choices, community involvement, and enabling participation in educational activities, informed decision-making, and meaningful relationships.

The program has facilitated children's transition into practical and professional roles, fostering independence, economic empowerment, and well-being through vocational training, employment, and entrepreneurship.

Children with intellectual disabilities demonstrated improvements in social skills, academic abilities, emotional control, independence, and practical roles after getting reintegrated into regular schools, promoting social inclusion and economic empowerment.

Discussion

Florian and Linklater ([2010](#)) found that a teacher education program focused on using existing knowledge effectively in inclusive classrooms, leading to high grades and improved cognitive development in students, despite initial difficulties in the second and third stages. Garrels and Arvidsson ([2019](#)) stated that for people with disabilities, self-determination is seen as a crucial educational goal since it has been demonstrated to positively correlate with other desirable adult outcomes like independent living, work, financial independence, and the ability to integrate into society and the community. On the basis of the results of the current study, it is also concluded that customized training is a highly effective technique /strategy to include the special need students in the regular community.

This study explores customized pre-inclusion training for children with intellectual disabilities, focusing on their academic, cognitive, and behavioral readiness for inclusion. It provides insights into the impact of

pre-inclusion training programs on students' success in mainstream schools and offers a longitudinal perspective on students' integration processes, contributing to successful inclusion. Florian and Linklater (2010) found that a teacher education program focused on using existing knowledge effectively in inclusive classrooms led to high grades and improved cognitive development in students, despite initial difficulties in the second and third stages (Forster, 2022). Garrels and Arvidsson (2019) stated that for people with disabilities, self-determination is seen as a crucial educational goal since it has been demonstrated to positively correlate with other desirable adult outcomes like independent living, work, financial independence, and the ability to integrate into society and the community. On the basis of the results of the current study, it is also concluded that customized training is a highly effective technique /strategy to include special need students in the regular community.

The inclusion of students with modest intellectual and developmental disabilities under the Single National Curriculum is generally supported by regular school instructors, according to a Fazil (2023) study conducted in Punjab, Pakistan. The study underlined that in order to successfully implement inclusive education practices, teacher training and resource allocation are essential. Furthermore, a systematic evaluation found that educating pupils about impairments has a favorable impact on their views toward their peers with disabilities. These programs' efficacy varies, though, depending on elements including cultural context, facilitator caliber, and program design. Notably, initiatives that combined information sharing and direct communication were the most successful at promoting inclusivity (Uria, Yurrebaso, & León 2025).

Conclusion

The study analyzed 15 case studies using an Individualized Educational Plan (IEP) and modified instruction. The results show that students with intellectual disabilities, who received pre-inclusive education, progressed to the cognitive (4th or 5th) stage, indicating significant improvements in cognitive, academic, and behavioral outcomes. The study highlights the potential for significant cognitive growth in these students. The study highlights the importance of inclusive education in supporting students with intellectual disabilities, social, and emotional development. It calls for educators to adopt a personalized, flexible approach to teaching, considering each student's unique needs and

abilities. This approach ensures academic and personal success for students with intellectual disabilities. This study highlights the potential of individualized education and inclusive practices in transforming the lives of students with intellectual disabilities, offering valuable insights for educators and policymakers.

Recommendations

This study will help regular teachers and inclusive education teachers to get the idea of modified methods of teaching. It will open doors for the students of intellectually deficient children to be involved in the regular society, because there are more difficulties for them as compared to others. They should be part of the educational institutions, as healthy members of the community. For this purpose, the following recommendations can be taken under consideration.

- Provide regular teachers and inclusive education teachers with professional development opportunities to learn about modified teaching methods, accommodations, and assistive technologies.
- Train teachers to use differentiated instruction techniques to cater to diverse learning needs, including intellectually deficient children.
- Create inclusive curricula that use assistive technology, accommodations, and adapted teaching strategies.
- Make sure that learning environments are both technologically and physically accessible, and offer accommodations like extra time, a quiet space etc.
- Encourage social inclusion through inclusive extracurricular activities, buddy systems, and peer support.
- Offer volunteer opportunities, parent-teacher conferences, and frequent communication to encourage parental participation, create customized learning programs, and teach life skills like social, independent living, and occupational skills.
- Assistance with Assistive Technology: To promote learning and communication, offer assistance with assistive technology, such as AAC devices.
- Promote inclusive extracurricular activities and involve the community

in intellectual disability awareness, education, and programs, ensuring equal access to resources, work opportunities, and education for individuals with intellectual disabilities.

Conflict of Interest

The author of the manuscript has no financial or non-financial conflict of interest in the subject matter or materials discussed in this manuscript.

Data Availability Statement

The data associated with this study will be provided by the corresponding author upon request.

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