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Perceptions and challenges faced by primary school teachers in identifying and referring children with learning disabilities: a qualitative study

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Abstract
Teachers in government schools play a pivotal role in identifying and addressing the diverse learning needs of students, including those with learning disabilities. However, limited exposure to specialized training in this area often hinders their ability to effectively recognize and respond to such challenges in the classroom. This paper examines the conceptual effectiveness of ongoing in-service training as a sustainable approach to enhance and retain knowledge related to learning disabilities among government school teachers. Anchored in the context of nursing and allied health education, the study highlights how structured, continuous professional development programs can act as catalysts in fostering a deeper understanding of learning disabilities—such as dyslexia, dysgraphia, and ADHD—thereby promoting inclusive education practices. Emphasis is placed on the pedagogical design of training modules, adult learning principles, reinforcement strategies, and interdisciplinary collaboration between nursing professionals and educators. The paper discusses the role of nurse educators and school health personnel in training delivery and mentoring, thus extending the scope of nursing beyond clinical boundaries into educational empowerment. Furthermore, it examines the cognitive and behavioral aspects of sustained knowledge retention, exploring how repetition, interactive learning, case-based discussions, and feedback mechanisms reinforce long-term comprehension. By critically analyzing existing literature, policy frameworks, and conceptual models, this study underscores the importance of institutional commitment, supportive learning environments, and periodic reinforcement in ensuring the longevity of knowledge gained through training. This non-empirical, conceptual research contributes to the discourse on inclusive education and underscores the interdisciplinary synergy between nursing education and school systems in enhancing teacher competency and student well-being.

Keywords: In-service training, learning disabilities, government school teachers, nursing education, knowledge retention, inclusive education, teacher empowerment, professional development, conceptual research, interdisciplinary collaboration

Introduction

In recent years, the recognition and management of learning disabilities (LDs) among school-age children have emerged as a critical concern within primary education systems globally. LDs, which encompass a spectrum of neurological disorders including dyslexia, dysgraphia, dyscalculia, and ADHD, affect children's ability to acquire academic skills despite normal intelligence and adequate learning opportunities. According to international studies, the prevalence of LDs ranges from 5% to 15% in school-aged populations, often leading to academic underperformance, low self-esteem, and increased dropout rates if left unaddressed (Williams, 2013) [1]. In the Indian context, this issue is magnified by uneven access to trained personnel, especially in government schools that serve marginalized and economically disadvantaged communities.

Teachers remain at the frontline of the educational experience for children and, therefore, hold a vital role in the early identification and support of students exhibiting signs of LDs. However, despite their critical positioning, many teachers lack the training, knowledge, and resources necessary to appropriately detect and refer such students for diagnostic evaluation or specialized intervention (Ghimire, 2017) [2]. This gap in training has prompted researchers and policymakers to stress the need for ongoing, systematic professional development tailored to inclusive education practices. Yet, teacher education programs in India often dedicate limited time to the study of learning disabilities, and in-service training opportunities remain sporadic and insufficient.

The interdisciplinary convergence between nursing education and primary education offers an innovative pathway for addressing this deficit. Nurse educators and school health personnel are uniquely positioned to support teachers in the identification and referral of children with LDs through school-based health programs. Interprofessional training models have been successfully employed in healthcare to improve collaborative outcomes and could be adapted for educational settings to bridge knowledge gaps among teachers (Baldwin & Baldwin, 2007) [3]. Nurse-led psychoeducation, behavioral workshops, and interdisciplinary seminars not only build awareness but also foster long-term retention of critical competencies, ultimately promoting inclusive classroom environments.

A central challenge in the current landscape is the disconnection between theoretical policies and ground-level practice. Although India's Rights of Persons with Disabilities Act (RPWD Act, 2016) legally mandates early identification and reasonable accommodation for children with LDs, the implementation in rural and semi-urban schools is patchy at best. Teachers frequently report a lack of time, insufficient resources, and minimal institutional support as reasons for their inability to act on their awareness of a student's difficulties (Paul, 2014) [4]. Moreover, there exists a cultural hesitation in labeling or referring children due to stigma, fear of misdiagnosis, or misunderstanding of legal entitlements.

Thus, the present conceptual paper aims to explore the perceptions and challenges faced by primary school teachers in identifying and referring children with LDs, while emphasizing the untapped potential of interdisciplinary collaboration—especially with nursing professionals—in enhancing teacher capacity. By integrating findings from educational and healthcare literature, and situating them within the framework of inclusive education policy, the paper seeks to provide a blueprint for sustainable in-service training and knowledge retention mechanisms that align with both pedagogical and health-oriented outcomes.

Need for Ongoing In-Service Training in the Education System

In-service training plays a crucial role in updating teachers' competencies and aligning them with the evolving educational needs of diverse learners, particularly those with learning disabilities (LDs). The dynamic nature of educational challenges—ranging from curriculum reforms to emerging pedagogical insights—necessitates sustained professional development that goes beyond pre-service qualifications. In the context of LDs, where early identification and timely intervention are critical, in-service training becomes not just a tool for upskilling but a moral and pedagogical imperative. Despite the legislative emphasis on inclusive education, many teachers, especially in government schools, lack consistent exposure to structured training programs focused on LDs (Moharana, 2019). This results in continued delays in identifying children at risk and in implementing appropriate teaching strategies to support their academic and emotional development.

Numerous empirical studies underscore the positive impact of well-structured in-service training on teachers' understanding, attitudes, and instructional capabilities related to LDs. A study conducted in Maharashtra showed that the use of a structured teaching program (STP) led to a significant improvement in knowledge scores among primary school teachers, highlighting that even short-term interventions can lead to measurable outcomes when methodically implemented (Vandali *et al*., 2018) [8]. These programs not only equip teachers with conceptual knowledge about various learning disabilities but also provide practical skills such as classroom screening techniques, documentation methods, and referral protocols. The implementation of such training modules should be cyclical and reflective, promoting a culture of continuous learning rather than one-time interventions.

Furthermore, the introduction of collaborative and interdisciplinary approaches in in-service training enhances both the depth and applicability of the learning experience. Models that integrate expertise from health professionals—such as nurse educators—into teacher development programs have shown promising results in terms of improved knowledge transfer and collaborative decision-making (Harper *et al*., 2023) [9]. Such interdisciplinary training fosters a team-based approach to addressing LDs and bridges the gap between medical diagnosis and classroom application, which is often missing in teacher-only initiatives. In-service programs designed with input from both education and health sectors also encourage a more holistic understanding of child development.

Despite clear benefits, implementation of ongoing in-service training faces barriers such as lack of institutional commitment, limited funding, and rigid school schedules. Teachers frequently report time constraints, inadequate administrative support, and the absence of incentives as key demotivators in participating in such programs (Amalraj & Sakthivel, 2020) [10]. To address these, policymakers must institutionalize in-service training into school calendars, allocate dedicated budgets, and mandate minimum hours of inclusive education training annually. Schools can also explore blended learning formats that combine online and in-person modules to increase accessibility and reduce scheduling conflicts.

Ultimately, ongoing in-service training serves not just to educate teachers but also to empower them—enhancing their confidence, effectiveness, and motivation in creating truly inclusive classrooms. By incorporating periodic assessments, feedback mechanisms, and reinforcement strategies, these training programs can ensure long-term knowledge retention and attitudinal change. Therefore, the need for sustainable, interdisciplinary, and well-supported in-service training is not an auxiliary component but a cornerstone of inclusive and responsive education systems.

Understanding Learning Disabilities: A Theoretical Overview

Learning disabilities (LDs) are neurologically based processing disorders that interfere with the acquisition and use of academic skills such as reading, writing, arithmetic, and reasoning. These disorders are not indicative of low intelligence or poor teaching; rather, they reflect specific cognitive impairments that impact information processing in children with otherwise normal intellectual abilities. Theoretical models over time have shifted from deficit-oriented frameworks toward more inclusive, cognitive-behavioral interpretations, emphasizing the heterogeneity and plasticity of LDs. From a neurodevelopmental standpoint, LDs involve disruptions in one or more brain functions responsible for acquiring, organizing, or expressing information, with dyslexia, dyscalculia, and dysgraphia being among the most frequently recognized subtypes (Williams, 2013) [2]. This understanding forms the foundation for early detection and pedagogical adaptations in classroom settings.

Theoretical models such as the Information Processing Theory have been instrumental in explaining how children with LDs encounter difficulties in receiving, storing, and retrieving information. According to this model, deficits may occur at any of the three stages—input (perception), processing (working memory), or output (expression)—making tailored interventions essential. Moreover, the Response to Intervention (RTI) model has gained significant attention as a tiered framework for early identification and support of students who exhibit academic struggles, including those with LDs. RTI moves beyond the traditional "wait-to-fail" model and integrates screening, monitoring, and instructional modifications before formal diagnosis (Kadakia, 2017) [6]. The use of RTI in Indian schools, however, remains limited due to structural and training deficits.

Additionally, the sociocultural theory of learning, particularly Vygotsky's concept of the Zone of Proximal Development (ZPD), has profound implications for LD interventions. It suggests that learners benefit most when scaffolded appropriately by a knowledgeable adult or peer. In cases of LD, this framework supports the use of

specialized instructional strategies that target individual learning gaps through guided assistance and differentiated instruction. Such approaches shift the focus from deficits to potential, aligning with inclusive education values. Yet, these strategies remain underutilized in classrooms that lack the foundational understanding of LDs among educators (Jose, 2015) [5].

Recent discourse has also expanded LD definitions beyond academic performance to include emotional, behavioral, and social dimensions. For instance, children with LDs frequently exhibit comorbidities such as anxiety and attention disorders, which compound their learning challenges and often lead to misdiagnosis or underdiagnosis. This expanded view advocates for a biopsychosocial model, integrating neurological, psychological, and environmental components in both assessment and intervention strategies. Within this framework, the role of teachers extends beyond instruction to encompass emotional regulation support, communication with parents, and collaboration with multidisciplinary teams, including nurse educators and counselors (Liu, 2021) [11].

Understanding LDs from a theoretical standpoint requires that teachers, administrators, and allied health professionals share a common language and conceptual clarity. It is this foundational knowledge that underpins effective screening tools, targeted instructional strategies, and appropriate referral mechanisms. Without this theoretical grounding, interventions risk being misdirected or ineffective, leaving children without the support they need to thrive academically and socially. Hence, embedding these theoretical perspectives into pre-service and in-service training remains central to enhancing inclusive education outcomes.

Role of Nursing Professionals in Educational Capacity Building

The evolving landscape of inclusive education has necessitated the involvement of professionals beyond traditional classroom roles, with nursing professionals emerging as vital contributors to educational capacity building, particularly in supporting children with learning disabilities (LDs). School nurses and nurse educators hold a unique position at the intersection of health and education, facilitating early screening, offering psychoeducational support, and enhancing teachers' capacity through structured training interventions. As the school setting increasingly becomes a site for holistic child development, the integration of nursing professionals in the educational framework is both timely and essential. Their clinical expertise allows them to identify neurodevelopmental patterns and refer students for specialized care, which complements the observational data gathered by teachers. Studies highlight that school-based nurse interventions significantly improve teacher awareness and increase timely referrals for academic and behavioral concerns (Whitehead, 2011) [7].

One critical role of nursing professionals is the facilitation of health education sessions for school staff. These sessions often focus on topics such as recognizing signs of LDs, understanding comorbid conditions like ADHD or anxiety, and responding appropriately within the classroom. Nurse-led interventions, such as psychoeducational modules, video-based sessions, and behavioral skills training, have proven to be effective in improving teachers' knowledge and confidence regarding LD identification (Jose, 2015) [5]. Furthermore, school nurses can serve as liaisons between healthcare providers and educators, translating diagnostic language into actionable teaching strategies and fostering communication between parents, specialists, and schools.

The integration of nursing into educational capacity building also aligns with the principles of community health nursing and population-based care. From a public health perspective, early intervention in learning difficulties can prevent long-term psychological and socio-economic consequences for children. In this context, school nurses act as agents of preventive care, conducting screenings for vision, hearing, speech, and developmental delays—all of which intersect with academic performance and may signal LDs (Baldwin & Baldwin, 2007) [3]. Their capacity to interpret these findings in collaboration with educators significantly enhances the chances of accurate and timely referral for special services.

Beyond individual support, nursing professionals contribute to institutional capacity by participating in the design and evaluation of in-service teacher training programs. Their background in adult education, particularly in behavioral change and health communication, positions them well to deliver content using evidence-based methods such as case-based learning, simulations, and reflective practice. In one study conducted in Taiwan, behavioral skills training delivered by nurse facilitators led to significant improvement in interdisciplinary team presentations and preparation among both clinicians and educators, demonstrating the effectiveness of nursing leadership in collaborative settings (Harper *et al*., 2023) [9].

Thus, the role of nursing professionals extends beyond traditional clinical boundaries into domains of educational empowerment and teacher development. By integrating their clinical acumen, communication skills, and training expertise, nurses contribute meaningfully to inclusive education, enhancing both teacher competency and student well-being. Recognizing and institutionalizing this role in policy and practice can bridge persistent gaps in LD identification and referral, ultimately ensuring that no child is left behind due to unrecognized learning needs.

Adult Learning Principles and Knowledge Retention Strategies

The effectiveness of any in-service training program for primary school teachers—particularly in the context of learning disabilities (LDs)—depends significantly on how well it aligns with adult learning principles and promotes sustained knowledge retention. Adult learners are self-directed, goal-oriented, and motivated by relevance and practicality, as outlined by Knowles' andragogy theory. When designing professional development for teachers, it is essential to engage them through experiential learning, problem-solving tasks, and contextual relevance. Incorporating real classroom scenarios, case studies, and reflective discussions increases intrinsic motivation and helps in the application of abstract concepts to practical settings (Kadakia, 2017) [6]. These pedagogical elements are crucial when training teachers to identify and support students with LDs, as theoretical understanding must translate into timely and sensitive classroom actions.

Cognitive psychology further supports the integration of reinforcement techniques to enhance knowledge retention. The Ebbinghaus Forgetting Curve demonstrates that without

reinforcement, much of newly acquired knowledge is lost within days. Repetitive learning through spaced intervals, practice quizzes, and feedback loops can counter this decline. In a nursing-education context, Harper *et al*. (2023) [9] found that behavioral skills training, involving task-analyzed steps and ongoing assessment, resulted in near-total retention of procedural knowledge among interdisciplinary teams. This model can be applied to primary school teacher training, with repetition embedded in teaching modules and peer mentoring to facilitate continued engagement.

Moreover, adult learners benefit from collaborative learning environments where shared experiences and peer insights enhance cognitive integration. Group-based case analysis, interdisciplinary workshops, and role-play scenarios stimulate deeper processing of knowledge and allow teachers to test hypotheses about LD-related behaviors in a low-risk environment. As demonstrated by Duncombe (2005) [12], collaborative professional development not only reinforces individual knowledge but also fosters a culture of reflective practice and team problem-solving. These communal formats are particularly relevant in LD identification, where a single observation is often insufficient and team input can validate concerns.

The use of multimedia and technology-enhanced learning also aligns well with adult learning preferences. Visual and auditory content, interactive simulations, and digital learning management systems facilitate asynchronous learning and allow learners to control the pace and sequence of information. In a study conducted in India, the use of video teaching programs was shown to significantly increase primary teachers' knowledge of LDs when compared to traditional lecture methods (Jose, 2015) [5]. These tools not only diversify instructional modalities but also ensure equity in access, particularly for teachers in remote or under-resourced schools.

Finally, reflection and feedback play indispensable roles in adult learning and retention. Structured reflection exercises encourage metacognition and help teachers integrate new knowledge with prior beliefs and experiences. Feedback—whether peer-delivered, instructor-led, or system-generated—provides correction, encouragement, and reinforcement. When nurse educators or interdisciplinary trainers provide timely, specific feedback during LD training, teachers are more likely to retain and apply their knowledge confidently in real-life situations (Liu, 2021) [11].

In sum, effective adult learning strategies must integrate relevance, reinforcement, reflection, and collaboration to foster long-term knowledge retention. Applying these principles in the context of inclusive education and LD recognition enhances the likelihood that teachers will maintain and act upon their learning in meaningful ways.

Designing Effective In-Service Training Modules

Designing in-service training modules for primary school teachers that address learning disabilities (LDs) requires a deliberate, theory-informed approach that balances cognitive load, adult learning principles, and the contextual realities of the school environment. The structure of these modules must not only deliver content but also engage educators in experiential and reflective learning processes that promote long-term behavior change. Foundational to this design is the integration of clearly defined learning outcomes, grounded in both policy directives such as India's Right of Children to Free and Compulsory Education Act (RTE, 2009) and disability-specific mandates under the *Rights of Persons with Disabilities Act* (RPWD, 2016). These acts obligate educators to recognize, accommodate, and support students with diverse needs, thereby justifying the institutional inclusion of LD-focused modules.

A well-designed training module begins with a needs assessment that identifies gaps in teachers' knowledge, attitudes, and practices. This ensures contextual relevance and prevents redundancy in instruction. Once identified, modules should be structured into sequenced units addressing theoretical understanding, practical screening techniques, classroom adaptations, and referral protocols. Vandali *et al*. (2018) [8] demonstrated that structured teaching programs (STPs), when delivered systematically with measurable goals, significantly improved teachers' knowledge on LDs. This underscores the importance of modular clarity, consistency, and assessment-driven feedback in training delivery.

The inclusion of interdisciplinary perspectives—particularly from nursing, psychology, and special education—enhances the richness and accuracy of content. For example, modules developed with input from nurse educators may cover early signs of neurodevelopmental delay, behavioral cues, and communication strategies with parents and health services. A study by Harper *et al*. (2023) [9] emphasized how behavioral skills training, particularly when delivered by interdisciplinary teams, increased procedural fidelity and collaborative confidence among trainees. Applying such principles in LD training modules helps bridge the knowledge-practice gap through case-based learning, interactive simulations, and role-play exercises.

Pedagogically, adult learners benefit from flexibility and autonomy in training. Modules that incorporate blended learning formats—combining face-to-face workshops with online resources—cater to different learning styles and increase accessibility for teachers in rural and under-resourced schools. The use of digital tools like videos, quizzes, discussion forums, and reflective logs ensures that training remains engaging and interactive. A study by Jose (2015) [5] found that video-assisted instruction significantly outperformed traditional methods in improving LD-related awareness among teachers, demonstrating the instructional value of multimedia in these modules.

Assessment and feedback mechanisms must be built into the training modules to track progress and reinforce learning. Pre-tests and post-tests offer objective measures of knowledge gain, while formative assessments, such as peer discussions and scenario-based tasks, facilitate continuous improvement. More importantly, mentorship models—where trained nurse educators or special educators provide follow-up support in schools—ensure that the training translates into actionable changes. This mentorship fosters sustained engagement and addresses context-specific challenges encountered by teachers after formal sessions have ended (Liu, 2021) [11].

In wholesome, the effectiveness of in-service training for LD recognition lies not only in the content but in the pedagogy, delivery format, interdisciplinary integration, and post-training reinforcement. When designed with these components, training modules can serve as transformative tools that empower teachers to support all learners, regardless of cognitive or behavioral challenges.

Interdisciplinary Approach: Collaboration Between Health and Education Sectors

The identification and management of learning disabilities (LDs) require a systemic approach that transcends the traditional boundaries of education. Interdisciplinary collaboration between the health and education sectors is increasingly recognized as essential in supporting children with complex learning needs. This integrated model leverages the unique competencies of professionals from both domains—teachers, school administrators, psychologists, special educators, nurse educators, and pediatricians—to ensure early identification, effective intervention, and long-term educational inclusion. While education professionals offer classroom-based observational insights, health practitioners contribute diagnostic precision and behavior management expertise, forming a symbiotic relationship that enhances outcomes for students with LDs. As highlighted by Liu (2021) [11], interdisciplinary teaching models improve team-based problem-solving and collaborative competency—both crucial in managing LD cases.

India's legislative mandates, such as the *Rights of Persons with Disabilities Act* (2016), advocate for such interdisciplinary practices by requiring schools to work in consultation with qualified professionals to design and implement Individualized Education Plans (IEPs). However, despite the policy frameworks, collaboration remains fragmented at the grassroots level due to unclear role definitions, communication gaps, and limited professional development opportunities. Nurse educators and school health personnel, often underutilized in educational planning, have the potential to bridge this divide by coordinating between families, healthcare providers, and school teams. Their training in both clinical assessment and health education positions them to identify developmental red flags, guide teachers in interpreting behavioral symptoms, and contribute to inclusive education training modules (Whitehead, 2011) [7].

Effective interdisciplinary collaboration must be rooted in mutual respect, shared goals, and institutional support. Schools must establish mechanisms for regular interaction between teachers and health professionals, such as school-based child study teams or monthly multidisciplinary meetings. These platforms enable professionals to discuss student cases, develop intervention strategies, and coordinate referrals. Training programs that bring together educators and healthcare providers enhance role clarity and promote a culture of integrated problem-solving. For example, Harper *et al*. (2023) [9] found that joint training in presentation and feedback skills significantly improved interdisciplinary readiness and cohesion among clinical and educational staff.

Another critical dimension of interdisciplinary collaboration is parent engagement. Health professionals can facilitate conversations with families that clarify medical diagnoses and explain their educational implications, while teachers can provide insight into academic performance and classroom behavior. This three-way communication fosters continuity of care and prevents service fragmentation. In schools where such collaborative ecosystems have been institutionalized, there is evidence of increased referral rates, earlier diagnosis, and more tailored classroom accommodations for children with LDs (Ghimire, 2017) [2].

Nevertheless, barriers remain. These include logistical constraints, such as the lack of full-time school health staff, absence of standardized reporting tools, and limited cross-training in LD management. Addressing these challenges requires a policy-level push to embed interdisciplinary collaboration into teacher training curricula and school management systems. Partnerships with medical colleges, nursing schools, and public health departments can be institutionalized to provide recurring support.

In short, the success of LD management in school systems depends on breaking down silos between health and education. Through structured, sustained collaboration, professionals can ensure that children with LDs are not only identified early but are also given holistic, coordinated support that addresses their learning, behavioral, and emotional needs.

Barriers and Facilitators to Knowledge Retention in Teachers

Knowledge retention is the linchpin of effective professional development, especially in the context of inclusive education and learning disabilities (LDs). While many teacher training programs may initially succeed in improving awareness, sustaining this knowledge over time remains a significant challenge. Numerous barriers hinder long-term retention, including lack of reinforcement, limited practical application, and inadequate follow-up mechanisms. In many government schools, in-service training sessions are treated as one-off events without continuous engagement, leading to rapid attrition of newly acquired skills. According to Kadakia (2017) [6], the absence of follow-up assessments and post-training support led to a decline in retention levels among teachers trained to identify LDs, demonstrating the critical role of reinforcement in professional learning ecosystems.

Time constraints and workload pressures further contribute to cognitive overload and diminish retention among teachers. Educators often juggle multiple responsibilities—administrative tasks, academic instruction, and extracurricular supervision—leaving limited room for reviewing or practicing newly learned concepts. This lack of integration into daily teaching routines hinders memory consolidation. Amalraj and Sakthivel (2020) [10] observed that without administrative support or time allocation for reinforcement sessions, most teachers reverted to pre-training behaviors within a few months. Institutional inertia, therefore, emerges as a formidable barrier to knowledge retention in LD education.

On the other hand, certain facilitators can significantly enhance retention. Among the most effective is repetition—delivered through spaced learning, refresher sessions, or regular interactions with mentors. Spaced repetition helps counter the forgetting curve by distributing learning over time and reinforcing memory through recurring exposure. In a collaborative study by Harper *et al*. (2023) [9], behavioral skills training that included repeated practice sessions resulted in nearly complete retention of procedure-based competencies across interdisciplinary teams. This finding supports the incorporation of ongoing simulations and feedback loops in teacher training.

Another key facilitator is contextual relevance. When training materials are aligned with real classroom challenges and local education contexts, teachers are more likely to internalize and apply what they have learned. Case-based

learning, role-play exercises, and peer observation formats help bridge the theory-practice gap. Duncombe (2005) [12] emphasized that knowledge retention is highest when professional learning occurs within the naturalistic setting of a teacher's own school, involving familiar challenges and collaborative reflection with peers.

Peer support and mentoring also serve as powerful facilitators of knowledge sustainability. Teachers who engage in peer coaching, community of practice groups, or receive ongoing mentorship from nurse educators or special education experts retain more and show higher fidelity in implementing inclusive practices. These social learning structures create accountability and encourage the integration of new skills into daily teaching. As noted by Liu (2021) [11], collaborative training environments not only enhance learning outcomes but also build relational memory and motivation to retain new competencies.

Ideally, while barriers to knowledge retention in teachers are significant, they can be mitigated through deliberate pedagogical strategies, systemic support, and collaborative models. Sustainable teacher development in the field of LDs depends on institutionalizing these facilitators to ensure that awareness is not fleeting, but enduring and actionable in real-world classrooms.

Policy Implications and Recommendations for Practice

The persistent challenges in identifying and supporting students with learning disabilities (LDs) in primary schools reveal critical policy gaps and systemic shortcomings. Although frameworks such as the *Right of Children to Free and Compulsory Education Act* (RTE, 2009) and the *Rights of Persons with Disabilities Act* (RPWD, 2016) mandate inclusive education and early identification of learning difficulties, actual implementation at school levels remains inconsistent. These legislative efforts often lack corresponding institutional mechanisms, funding, and interdisciplinary coordination needed to translate mandates into meaningful action. Therefore, policy reform must begin by operationalizing legal mandates through enforceable standards, performance benchmarks, and accountability systems embedded within school governance frameworks (Ghimire, 2017) [2].

One crucial policy shift must involve the mandatory integration of LD-focused training into both pre-service and in-service teacher education. While some teacher training colleges may touch on special education, few provide rigorous, evidence-based modules on LD recognition, screening, and referral. Embedding interdisciplinary content co-developed by educationists, psychologists, and nursing professionals into existing teacher training curricula would bridge the knowledge gap effectively. Kadakia (2017) [6] recommended that periodic evaluation of teachers' post-training knowledge and classroom practices be institutionalized, ensuring that training translates into consistent implementation.

Another recommendation is the formalization of school-based interdisciplinary teams that include teachers, special educators, nurse educators, and mental health professionals. These teams would be responsible for early screening, tracking progress, parent engagement, and referral coordination. Whitehead (2011) [7] emphasized that special school nursing teams significantly enhanced interdisciplinary effectiveness and fostered environments where LDs were addressed holistically rather than in isolation. These models can be adapted to government schools through partnerships with district health services and teacher resource centers.

Equally important is the establishment of continuous professional development (CPD) systems that incentivize and mandate annual LD-related training for all educators. These should be flexible and accessible, offering digital options for remote regions and incorporating spaced reinforcement techniques for better knowledge retention. Harper *et al*. (2023) [9] demonstrated the success of behavioral skills training when delivered through modular, repeatable formats that involved follow-up assessment and mentoring. CPD credits linked to performance appraisals or promotion eligibility would further institutionalize teacher motivation and accountability.

Monitoring and evaluation (M&E) systems must also be improved to assess the fidelity of policy implementation. Schools should be required to maintain detailed records of referrals, IEPs, and follow-up actions taken for students with LDs. Periodic audits and third-party evaluations would ensure compliance and identify implementation bottlenecks. In schools where M&E frameworks were embedded within teacher training programs, Jose (2015) [5] found significant improvements in long-term application of LD screening practices.

Lastly, resource allocation must be recalibrated. Policies should earmark specific funds within school budgets for LD screening tools, assistive technologies, and training resources. The use of low-cost, evidence-based tools tailored to local languages and contexts would ensure equity and scalability. Furthermore, health departments must be integrated into policy development and resource deployment to reinforce the interdisciplinary foundation of LD management.

In summary, effective policy implementation for LD recognition requires a triad of mandates, mechanisms, and monitoring—anchored in interdisciplinary practice and grounded in the real-world constraints of India's school systems.

Conclusion and Future Directions

The identification and support of children with learning disabilities (LDs) within primary school settings remain a pressing educational challenge that requires a multidimensional response. While teachers serve as the first line of observation, their limited training, lack of confidence, and systemic constraints often hinder timely recognition and referral of affected students. The integration of nursing professionals into teacher development and student support systems offers a promising interdisciplinary model, leveraging their clinical and educational competencies to bridge existing gaps. Structured in-service training modules—designed using adult learning principles and delivered through collaborative platforms—have shown to significantly enhance teacher awareness, skill retention, and classroom application (Harper *et al*., 2023; Jose, 2015) [9] [5]. Despite progressive legal mandates such as the *RPWD Act, 2016*, implementation remains uneven due to policy-practice disconnects and under-resourced school systems. Moving forward, sustained improvements will require embedding LD education into teacher certification standards, mandating interdisciplinary training at all institutional levels, and allocating dedicated funding and

monitoring mechanisms for inclusive education practices. The development of school-based multidisciplinary teams, supported by community health infrastructure, can act as sustainable engines of change in rural and urban schools alike (Whitehead, 2011) [7]. Research should also focus on evaluating long-term outcomes of integrated training interventions, with a special focus on how nurse-led modules influence classroom practice, referral accuracy, and student success. As the educational landscape shifts toward inclusivity, it is imperative to reimagine professional development not as an isolated obligation but as a systemic, collaborative, and continual process—central to both teacher empowerment and student well-being.

References

1. Williams A. Competency of school teachers regarding learning disabilities among children. J Nurs Health Sci,2013:2(1):45–52.
2. Ghimire M. Knowledge of primary school teacher regarding learning disabilities of children. Int J Nurs Educ,2017:9(1):134–9.
3. Baldwin DC, Baldwin MA. Interdisciplinary education and health team training: a model for learning and service. Soc Work Health Care,2007:44(3):1–19.
4. Paul R. Ensuring quality provision of education for all: Inclusive education for children with learning difficulties. Indian J Spec Educ,2014:5(2):56–63.
5. Jose M. A study to evaluate the effectiveness of video teaching program on knowledge regarding learning disabilities among primary school teachers. Int J Adv Educ Res,2015:2(4):23–30.
6. Kadakia M. Elementary teachers' perceptions of the effectiveness of response to intervention. J Educ Psychol,2017:8(2):94–101.
7. Whitehead B. Partnerships in special needs school nursing. Br J Sch Nurs. 2011:6(3):120–6.
8. Vandali D, Prasantha T. A study to assess the effectiveness of structured teaching programme on knowledge regarding learning disability among primary school teachers. Indian J Public Health Res Dev,2018:9(12):178–84.
9. Harper C, Bird R, Morris E, *et al*. Teaching clinicians and nurses to prepare for and present effective interdisciplinary case presentations. Nurse Educ Pract,2023:72:103609.
10. Amalraj E, Sakthivel D. Teachers' knowledge about learning disabilities among school children. Int J Community Med Public Health,2020:7(9):3652–6.
11. Liu Q. Effect of interdisciplinary teaching on collaborative problem-solving competency of students. Int J Educ Dev,2021:84:102426.
12. Duncombe R. Effective teacher learning in primary school physical education: The impact of collaborative and sustained professional development. Teach Teach Educ,2005:21(7):857–68.