A Synthesis of Research on the Identification, Understanding and Support to Students with Learning Disabilities

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Abstract

This paper provides valuable insights to teachers, practitioners and policy makers by advocating for evidence-based strategies and tailored interventions as it not only addresses the cognitive challenges the students face but also emotional and psychological effects which often compound learning difficulties. This supports the argument for a well-rounded and empathetic educational approach.

The paper studies the complex nature of children with learning disabilities, focusing on their neurological, psychological, and educational aspects. Learning difficulties are characterized by persistent difficulties in acquiring and using academic skills, despite average or above average intelligence and access to appropriate instruction. While various learning disorders exist, this paper focuses on current research surrounding Dysnomia, Auditory Processing Disorder, Language Processing Disorder, and Dyslexia – conditions that significantly affect learning processes.

In addition to exploring the cognitive challenges, this paper addresses the psychological impact of learning disabilities, including issues such as low self-esteem and anxiety, which can further hinder academic performance. This paper also outlines educational strategies designed to support students with learning disabilities, emphasizing the importance of targeted interventions and accommodations that promote academic success.

The objective of this paper is to offer a comprehensive overview of select learning disabilities to better inform educators, practitioners and policy makers. It advocates for a holistic approach to diagnosis and support – one that considers both cognitive and emotional needs of individuals with learning disabilities.

1. Introduction

Learning disabilities are neurodevelopmental disorders that impairs the brain's ability to process and interpret information, resulting in persistent challenges with acquiring academic skills, even in children with average or above average intelligence. These difficulties can present in various ways – such as difficulties with reading, writing or mathematical reasoning – and affect often both academic performance and self-esteem (Aremu, 2025).

A comprehensive understanding of learning disabilities involves exploring their neurological foundations, psychological impacts, and the effectiveness of different educational strategies. By examining these dimensions, we can develop more effective methods of support, ensuring individuals with learning disabilities have access to tools and resources necessary for academic and personal growth.

Because learning disabilities vary significantly from person to person, they encompass a wide range of disorders. One individual may struggle with math comprehension, while another may find it difficult to process spoken language. Due to these individual differences, there is no universal profile for someone with a learning disability (Freund, 2005). This variability underscores the need for personalized approaches to diagnosis and intervention.

2. Identifying Dysnomia in learners as a teacher in an inclusive classroom

Dysnomia, a specific impairment characterized by difficulty recalling and retrieving words from memory – particularly during speech, poses a unique challenge for educators. Identifying students with dysnomia requires

careful observation and a collaborative approach among teachers, specialists and parents. Since it primarily affects expressive language, there are several key indicators that teachers can look for:
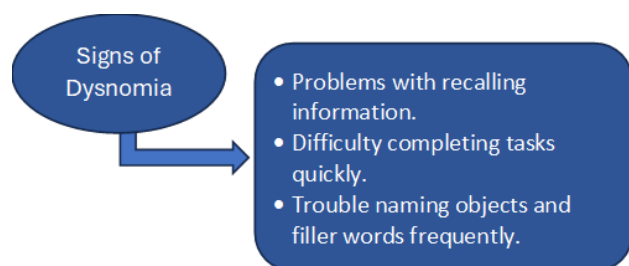
- **Word-finding difficulties:** Student with dysnomia often struggle to recall familiar words, leading to frequent pauses, the use of filler words, or substituting incorrect terms during conversation.

- **Disorganized sentence structure:** These students may have trouble arranging words into grammatically correct sentences, resulting in jumbles or incomplete expressions.

- **Delayed vocabulary development:** Compared to their peers, students with dysnomia may show slower progress in acquiring new vocabulary.

- **Difficulty naming objects:** A consistent need for helping in naming everyday items, people, or places can be a sign of dysnomia.

- **Frequent "tip-of-the-tongue" moments:** Students may often know the meaning of the word but struggle to retrieve it when speaking, which can cause visible frustration and disrupted communications.

Recognizing these patterns early allows educators to implement supportive strategies than can significantly improve a student's ability to communicate and succeed in the classroom.

Some additional ways to identify students with dysnomia are:

- **Retrieving written work:** Dysnomia can also appear in a student's writing. Teachers should examine assignments, tests, and journal entries for signs of difficulty with word retrieval, inconsistent spelling, and disorganized sentence structure.

- **Classroom observation:** Teacher should closely monitor students' verbal and written communication for frequent pauses, hesitations, or word substitutions – common indicators or word-finding difficulties.

- **Peer comparison:** If concerns arise, comparing a student's language ability to those of their peers can be informative. Notable difference in vocabulary uses or difficulty retrieving familiar words may point to dysnomia.

Through consistent observation and assessment, educators can accurately identify who may be struggling with dysnomia and provide timely support.

Signs of Dysnomia

- Problems with recalling information.
- Difficulty completing tasks quickly.
- Trouble naming objects and filler words frequently.

Teachers can efficiently support students with dysnomia by creating a positive, inclusive classroom environment and incorporating strategies that address each student's specific challenge. An approach that is personalized, clubbed together with continuous encouragement, can significantly improve communication skills and academic success of these students. Some of the key strategies include:

- **Incorporating visual aids and prewriting techniques:** Visual organizers, outlines and other graphic aids can assist the students with structuring their thoughts and thereby reducing the stress associated with word retrieval during speaking or writing activities.

- **Promoting self-advocacy:** When students are encouraged to identify their needs and seek support, it fosters independence and builds their confidence in their learning experience and journey.

- **Allowing extended time:** By allowing and permitting additional time for verbal responses, written activities and assessment, it helps to alleviate the pressure that could deter wordfinding skills and abilities.
- **Collaborating with specialists:** Being partnered with speech language therapists and by integrating assistive technologies such as speech to text tools or word prediction software, students can enhance communication and academic performance.
- **Creating small group opportunities:** When incorporating small group activities in teaching and learning, it can reduce performance anxiety and offer a safer place for practicing language skills in a low-pressure setting.
- **Administering IEPs (Individual Education Plans):** IEPs make sure that accommodations and instructional goals are tailored to meet the specific needs of each student with dysnomia.
- **Tracking progress and celebrating success:** Evaluating student growth on a regular basis, providing timely and constructive feedback, and maintaining open communication with families foster a supportive and conducive learning environment

Providing support to students with dysnomia is an ongoing process that involves a lot of patience, flexibility and responsiveness. As no two students experience teaching and learning in the same way, it is imperative to adapt strategies and resources to meet individual needs, and help the students to thrive academically, socially and emotionally.


3. Arranging the classroom to help learners with Auditory Processing Disorder (APD) focus better

When supporting students with APD, it is important to remember that it requires a thoughtful and adaptive approach where it may require modification to the learning environment, appropriate instructional strategies, and the possible involvement and collaboration with specialists. Teachers play a very crucial role in creating a classroom environment that reduces auditory distractions and enhances understanding and comprehension. Below are a few effective strategies:

- **Optimizing seat arrangement:** Positioning seats near the front and centre of the classroom reduces the distance between the student and the teacher. This improves improved auditory access and thus enables better focus on verbal instructions.
- **Minimizing background noise:** The teacher should make effort to keep the student away from distracting noise such as noisy air conditioners, projectors or noise from open windows. When there is a reduction in ambient noise, students can better concentrate on the instructions content.
- **Use visual supports:** spoken information should be reinforced with visual aids such as charts, slides, written instructions and even diagrams. Such tools provide alternative pathways for understanding and retaining information
- **Practice clear communication:** Teachers should pronounce words clearly and practice speaking at a moderate pace. Facing the student while speaking and including strategic pauses during communication allow the student time to process the information. Visual cues and gestures can also aid understanding.
- **Repeat key information:** repetition is essential for student with APD. Reiterating important points and instruction can reinforce learning and improve retention.
- **Incorporating assistive technologies:** A Frequency Modulator (FM) is an assistive tool that transmits the teacher's voice directly to the students hearing aid or receiver, minimizing any background noise and improving auditory clarity
- **Incorporate noise reduction tools:** Noise-cancellation headphones or ear defenders can help students manage their sensory overload by blocking out distracting noises during independent work and activities.
- **Include regular breaks:** Including regular breaks in schedules can help prevent auditory fatigue and give time to students to process information, with an objective to improve focus and engagement.
- **Involving professionals:** Occupational therapists, audiologists and speech language pathologists are externals that provide advice and strategies on how to address the unique needs of students with APD.

Both physical and instructional adjustments in classrooms create a supportive environment for students with

APD. With consistent effort and collaboration, teachers can significantly improve the learning experience and outcomes for these students.
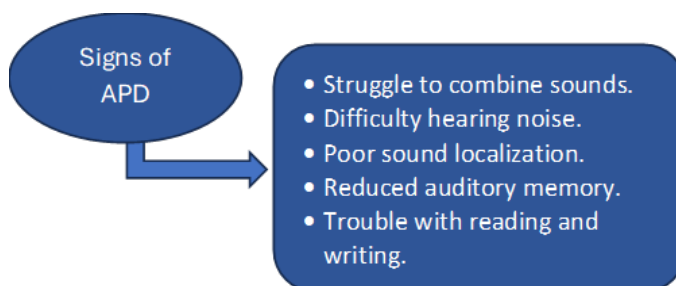
Flexible seating options to accommodate the diverse needs of students with APD is one of the most effective strategies a teacher can implement. Depending on the severity of the APD, some students may benefit from alternative seating arrangements such as stability balls, seat cushions or even fidget tools, as it would help them stay focus and engaged.

It is important to recognize that students with APD do not fit a single mold as each learner experience and manifests the disorder differently. Because of this, teacher should take time to observe and communicate with each student to understand their specific needs, preferences and challenges. It is also necessary that regular feedback and adjustments to the classroom environment should be made which are key to creating a learning space that is truly inclusive and supportive.

4. Modifying instructions and implementing strategies to facilitate students with Language Processing Disorder (LPD)
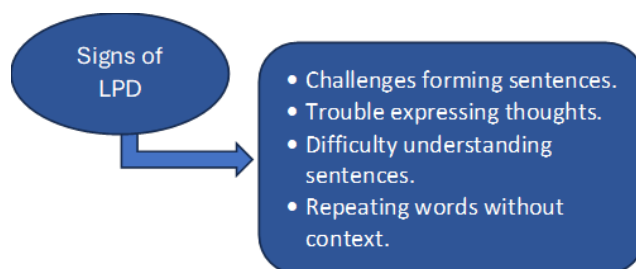
Language Processing Disorder (LPD) mainly affects how the brain interprets verbal and written language, rather than the ability to hear or speak. Because of this, students with LPD find it very challenging to understand the meaning of the words, sentences and narratives due to the way they process information.

English language classes are especially important in supporting students with LPD and these classes focus heavily on language skills. If teachers are to teach English to students with LPD, they need to have a flexible approach and a strategic approach that addresses the students' unique challenges while fostering language development. Some of the effective strategies for working with students who have LPD are:

- Present clear and concise information and avoid using unnecessary details and complex sentences like double negatives.
- Use familiar and everyday words instead of rare and abstract words.
- Encourage direct interaction and participation because students with LPD often respond better to active engagement.
- Apply open-ended questions over multiples choice formats because open-ended questions can be challenging to process for students with LPD
- Encourage group work and allow students to learn from fellow classmates rather than depending only on the teacher for support.
- Provide extra time for students to process spoken and written information and create their responses.
- Do not pressurise students to understand material right away as this can lead to frustration and withdrawal.
- Record sessions in class so students can review the material at home or during their study time.
- Incorporate visual aids and hands-on activities to improve comprehension and engagement.
- Incorporate different techniques during instructions like art, music, video clips, etc. to strengthen visual
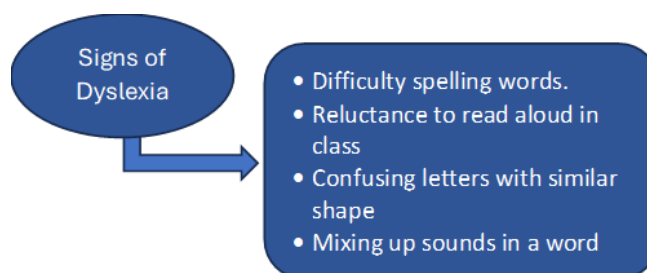
reasoning skills.

- Break-down large portions of language into more manageable parts to avoid students from feeling overwhelmed with information.
- Incorporate appropriate educations apps and any sort of interactive platforms to support the language development.
- Maintain a regular check on student understanding and make students understand the importance of good quality work.
- Incorporate educational scaffolding techniques to slowly reduce support and build independent learning
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Signs of LPD

- Challenges forming sentences.
- Trouble expressing thoughts.
- Difficulty understanding sentences.
- Repeating words without context.

5. Helping Dyslexic Learners to overcome reading difficulties

Teachers need to implement specific strategies and techniques that address the unique needs of students with dyslexia and help them to overcome the challenges related to reading. As dyslexia is a learning disorder that mainly affects the development of literacy and language-based skills, students who are affected often struggle with phonological processing, working memory and processing speed. Some of the effective approaches to support students with dyslexia are:

- **Adapt a collaborative and supportive classroom environment:** Teachers should work hard to build a strong relationship with all students and encourage peer interactions. By creating a welcoming, inclusive and comfortable space promote students to think freely with stress and encourages them to seek support when needed

- **Prioritize early identification and intervention:** Identifying dyslexia at an early stage is crucial for effective support. Teachers should monitor students and screen them for reading difficulties and coordinate with specialists to have accurate diagnosis and appropriate intervention.

- **Provide L-shaped reading guides for support**: L-shaped cards are assistive tools for directing a dyslexic student's attention to a specific part of a page. This approach is especially effective when practicing reading skills, as it minimizes visual overload and helps the students to focus on one section at a time.

- **Implement the Orton Gillingham Approach:** This is a structured and multisensory approach that emphasizes the connection between letter and their corresponding sounds. By engaging sound, sight, touch and movement, dyslexic students can develop a deeper understanding of language and improve overall reading comprehension.

- **Use Concept-Checking Questions (CCQs):** Incorporating CCQs at the end of each lesson allows the teacher to assess the students' comprehension. The specific and targeted questions help to ensure that the student has understood the material which reduced the likelihood of confusion or a certain silence after the instruction.

- **Incorporate frequent recap and review sessions:** Reinforcement is very important for students with dyslexia. Using varied techniques like drawings, music, rhythmic movements, gestures and even visualization helps the student to retain new concepts and vocabulary effectively.

Signs of Dyslexia

- Difficulty spelling words.
- Reluctance to read aloud in class
- Confusing letters with similar shape
- Mixing up sounds in a word

Compassion is one of the most important approaches when dealing with students suffering from dyslexia. Dyslexia can significantly affect the self-esteem of students, along with confidence and mental well-being. Irrespective of the teaching strategies used, teacher should make continuous efforts to be mindful and strengthen the student's self-worth. This will surely include offering frequent praise for any kind of effort and improvement shown during class. Teacher should avoid situations that cause embarrassment, like putting the student on the spot in front of their classmates, but instead, provide ample opportunity for support and encouragement.

6. Factors to keep in mind while deciding Special Education Teacher Support Services (SETSS) locations as a teacher in an inclusive classroom for students with learning disabilities

When identifying appropriate locations within an inclusive classroom, several key factors need to be considered to make sure that all students are equally supported based on their needs. These considerations create an environment that promotes equity, accessibility and meaningful participation for every learner.

Direct Services:

These services include working directly with the student, either individual or in small groups.

Indirect Services:

Indirect services can include consultation provided by a special education teacher to regular teachers on how to adjust their learning environment or instructional methods to meet the needs of students with learning disabilities.

Important aspects that teachers need to keep in mind are:

- **Meeting individual needs:** Teachers should know that each student has a unique learning need in an inclusive classroom. Service location should be thoughtfully chosen based on the disability requirement of the student to ensure effective learning.

- **Encourage student involvement:** When appropriate, students can also be involved and included in deciding where services are to be located. Getting them involved for their inputs promotes a sense of empowerment and sends out a message that their opinion matters when it comes to their preferences and comfort.

- **Regularly reviewing IEPs:** Teachers should make to have the Individual Education Plans (IEPs) reviewed periodically to ensure they include required accommodations and services. These IEPs may include specific recommendations or preferences for service locations, such a s speech therapy, or counselling.

- **Ensuring accessibility to service locations:** Teacher need to make sure that all learning and service locations are easily available to students with disability. These features include feature like wheelchair access, ramps, elevators, and convenient proximity to the classroom to minimize transition difficulties.

- **Promoting collaborative planning:** Teacher must ensure to work in close collaboration with academic support staff, special education teams, and even include external specialists to determine the most appropriate service locations. Having effective collaboration also ensures that decisions are well-informed and tailored to each student's needs.

- **Schedules and time management:** When a service is scheduled, it should be organized thoughtfully to minimized disruptions to students in their academic journey, which include social and emotional interactions. Teachers should also consider whether services are best delivered during class, free periods, before or after school, depends on what works best for the individual student.

- **Involving parents and guardians:** Teachers should make sure that parents are actively involved with

the growth and development of their child. They should also be given a voice regarding service locations. Their involvement may sometime be beneficial in determining the comfortable setting for their child's support

- **Maintaining consistency:** Teachers need to establish a consistent service schedule because it helps to create a sense of stability and predictability for students. When students know when and where they get support, they feel comforted which reduces their anxiety.

- **Monitoring student progress:** Teachers should make it point to regularly evaluate how service locations are influencing and impacting a student's academic progress and general well-being. Flexibility is imperative, which means adjustments must be made to make sure that the student is receiving the support needed.

- **Seeking on-going feedback:** Acquiring feedback from students, parents, service providers is important aspect of improving the effectiveness of service delivery. Frequent feedback and inputs assist and refine the location and quality services.

The main objective of inclusive education is to foster a classroom environment where all students can learn and thrive together. Teachers need to consider the above factors to works towards meeting the diverse needs of student, with or without disabilities, in the classroom.

7. Conclusion

In conclusion, disabilities in learning pose multifaceted challenges that go beyond academic performance, which affects cognitive functioning, emotional well-being, and the overall education experience of the student. It is important to have a thorough understanding of the neurological and psychological aspects of these disabilities as it leads to effective and meaningful interventions.

Teachers can always better support students with learning disabilities by implementing evidence-based strategies and by creating inclusive environments. There have been advances in technology, neurosciences and genetics that open new avenues for research enabling more precise interventions and strategic support.

Today, schools are increasingly equipping themselves to address a range of learning disabilities, especially for students from minority backgrounds. As there is a growing need to improve assessment practices, continued collaboration among educators, practitioners and policymakers is critical in developing tailored approaches that meet both academic and emotional needs of students.

The direction of future research will be focused on developing personalized interventions for learning using AI-driven educational technologies. Such AI tool can adapt in real-time to a student's leaning requirement and profile, providing more effective, individualized support for students with disabilities such as Dysnomia, Dyslexia and Language Processing Disorder

The future also needs to focus on continued interdisciplinary research that combines neuroscience, psychology and education, paving a path to understanding more about the brain mechanisms underlying various learning disabilities. Pursuing such research directions can lead to building a more effective, equitable and supportive learning environment for students with learning disabilities

Eventually, it will always be a compassionate and informed approach that will empower students with learning disabilities to reach their full potential and lead meaningful and fulfilling lives.

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