Spanish Journal of Innovation and INTEGRITY
ISSN: 2792-8268
Volume: 40, Mar-2025
http://sjii.indexedresearch.org

Language Learning for Dyslexic and Autistic Individuals: Challenges, Strategies, And Innovations

Makhmashaeva Dinara Tilovmurodovna
Student of the faculty English Philology and Translation studies
Samarkand State Institute of Foreign Languages,
tilovmurodovna@gmail.com

Abstract: *This article provides an in-depth look at language acquisition in individuals with developmental disorders, particularly autism spectrum disorder (ASD) and dyslexia. It examines how these conditions influence language learning and processing, highlighting the unique challenges individuals may face when acquiring both native and foreign languages. Additionally, the article includes a list of red flags to help identify students who may struggle with foreign language studies. It also offers practical strategies for teaching students who cannot learn a foreign language through traditional methods. Beyond exploring the scientific and neurological aspects of language acquisition in individuals with developmental disorders, the article offers practical strategies for teaching students who cannot learn a foreign language through traditional methods. It emphasizes the importance of innovative teaching methods to ensure that all students have the opportunity to succeed in their language-learning journey.*

Keywords: *cognitive growth, language acquisition, dyslexia, consistent encouragement, autism, support, multisensory teaching approaches.*

Introduction. In today's interconnected society global understanding is crucial, thus language acquisition plays an imperative role. Language learning serves as a vital bridge, connecting people from different cultural backgrounds, enabling collaboration across borders and access to the unique cultural heritage of diverse societies, and fostering an environment where ideas, knowledge can thrive. Beyond its practical benefits, the process of mastering a new language enriches people by broadening their perspectives, deepening their understanding of global diversity, and fostering both personal and professional growth.

And for people with various disorders, learning languages holds even more significance. Language acquisition is not just a practical tool but a transformative experience that helps improve their quality of life. It can enhance social interactions, boost their self-esteem and foster cognitive growth. Being able to communicate in multiple languages allows them to engage more fully with their communities, access essential resources, and effectively advocate for their rights, needs and aspirations.

Learning disabilities refer to a range of disorders that affect skills such as reading, writing, speaking, listening, reasoning, or math. These difficulties are believed to stem from central nervous system dysfunction and can persist throughout life. While they may coexist with conditions like sensory impairments, emotional disturbances, or external factors such as cultural or linguistic differences, learning disabilities are not caused by these influences. Issues with self-regulation and social interaction may also accompany them but are not defining features of the condition. The complex nature of learning disabilities necessitates a comprehensive understanding of their impact and tailored approaches to address the needs of affected individuals [1].

Research shows that learning disorders affect around 10% of the global population, impacting both students and adults. Language disorders can significantly influence a person's ability to communicate effectively and acquire second language. For instance, students with dyslexia may find it hard to decode unfamiliar words or grasp spelling rules, while those with auditory processing issues may struggle to differentiate between similar sounds in a new language [2]. These challenges are not limited to specific age groups [3].

Despite these difficulties, research has shown that with appropriate support and strategies, students with learning disorders can overcome obstacles and thrive in their pursuit of multilingualism. Alternatives such as multisensory approaches, structured repetition and step-by-step guidance are proven effective in assisting these learners to overcome obstacles [3].

Educators must be equipped with the knowledge and tools to adapt their methods to the diverse needs of their students. This could involve granting extra time for practice, leveraging assistive technologies to enhance understanding, and fostering a positive atmosphere through consistent encouragement. Recognizing and celebrating small milestones can help motivate learners and demonstrate that progress is possible, even in the face of challenges.

Disabilities and their influence on learners. Individuals can have a wide range of disorders that affect their studies, daily activities, and communication. These disabilities are categorized by how they influence people, making learning process even more challenging.

Dyslexia. Dyslexia is a learning difference that makes it difficult for students to read, spell, write, and sometimes speak while mastering a new language. It is a neurological condition which primarily affects the language learning process in the brain. It's not related to intelligence, vision problems, motivation or encouragement, it's just the way the brain processes the language. People with dyslexia have problems with phonological processes: pronouncing long names, trouble finding necessary word to say, long pauses during speech and they often have difficulties connecting sounds with letters, which makes it harder to decode words while reading [4]. So, detecting the signs and understanding causes of this disorder can help find the best assessments and treatments for those at risk.

Causes of Dyslexia. Dyslexia is believed to be caused by a combination of genetic and neurological factors. According to the research, dyslexia has a strong hereditary component, often running in families. Studies have shown that approximately 40% of siblings of individuals with dyslexia also experience reading challenges, and up to 49% of their parents may be affected as well [5].

Additionally, special genes linked to reading and language learning have been identified. Study carried on by **Anthony P. Monaco and his team** identified that dyslexia is expressed only in selected regions of the brain and particularly during the early migration of neurons taking up their correct positions in the cerebral cortex during development [6].

These neurological differences affect the brain's ability to process language in areas responsible for reading fluency, word recognition and phonological awareness.

Difficulties dyslexic individuals experience during language learning process:

Delay in speaking. Usually, children say their first words and phrases before their eighteen month to two years. But dyslexic children may not start speaking until after their second birthdays.

Pronunciation difficulties. By 5 or 6 year children should not have problems pronouncing words except for long or complicated words compared to children with dyslexia who may mispronounce some words. They can trip words over one another, such as *"lephant"* instead of *"elephant"*.

Reliance on visual clues. It's called logographic stage. It's when a dyslexic child doesn't use his knowledge to read a certain word, and instead he memorizes some associated visual clue and recognizes

it while reading. For instance, they can read familiar words such as Coca Cola or McDonald's without any struggle [4].

Troubles remembering names, data or numbers. Some individuals may have problems remembering certain indicators they read, even the simple ones due to the problem with decoding words.

How can we manage this challenge during the learning process?

Although there's no *cure* for this disorder, we still can make steps to make the learning process easier and more effective. These steps include:

Structured literacy problems. These are systematic, multisensory teaching methods that are proven to help dyslexic people improve their reading skills, dividing reading process into several parts (phonics, fluency, comprehension, decoding). For example, Orton-Gillingham (OG) or **Wilson Reading System.**

Using assistive technology. Today there are lots of technologies with different options and benefits. Some of them are: Text-to-Speech (TTS), **Speech-to-Text (STT),** Audiobooks & E-books.

Graphic Novels & Dyslexia-Friendly Books. Using this kind of books may help dyslexic people improve their reading comprehension. They have less text and more visuals, shorter chapters and simple sentences which makes it easier for people to focus on. They also feature spaced-out texts and other advantages.

Autism spectrum disorder (ASD). It is one of the most common neurodevelopmental conditions which has an affect on an individual's communication, social interaction and behavior. This lifelong condition manifests in early childhood, though signs may become more noticeable as social and academic demands increase.

Causes of Autism spectrum Disorder (ASD). ASD is a prevalent condition worldwide, with diagnoses increasing over time. Current estimates suggest that it affects approximately one in 100 people [7]. A study examining the relationship between brain growth patterns and the emergence of behavioral symptoms in autism spectrum disorder (ASD) found that brain imaging of high-risk infants shows early signs of autism. Cortical surface expansion between 6 and 12 months precedes brain overgrowth at 12 to 24 months, which is linked to social deficits. A deep-learning model using MRI data predicted autism at 24 months with an 81% positive predictive value (PPV) and 88% sensitivity, highlighting early brain changes [8, 348–351]. **Additionally,** since 2000, the ASD rate **has been** 76 per 10,000 overall, based on two studies **conducted** on adults (110 per 10,000) and toddlers and **preschoolers** (136 **per** 10,000) [9].

ASD might be developed by several factors:

- Having a sibling with ASD;
- Being born to older parents;
- Being diagnosed with specific genetic conditions;
- Having an extremely low birth weight [10, 70].

So, early detection and interventions of ASD can be very beneficial for people foster development, improving their quality of life and decreasing mental and financial costs of ASD.

Challenges that autistic people face while learning a new language:

Limited Eye Contact. One of the signs of ASD is that when children frequently avoid or cannot sustain eye contact during dialogue as they typically should.

Less attention to their environment. Autistic people don't respond to their names by 9 months even if they are called several times, or they tend to look or listen less to people around them.

Too strict routines. Individuals with ASD often get distressed about minor changes in their routines.

Overreaction to sensory stimuli. When strong responses to certain sounds, textures, lights, or smells are observed, they may be symptoms of ASD [10].

What actions can be taken to support individuals with ASD?

Structured and visual-based learning. Using pictures and text for daily language activities; using images to help learners associate words with objects or actions; assigning different colors to parts of speech (e.g., blue for nouns, white for verbs, etc.).

Multisensory teaching approaches. Utilizing assistive technology to enhance language comprehension:

- ✓ *Auditory learning* – listening to audiobooks, stories;
- ✓ *Tactile learning* – using hands-on activities such as writing letters in sand or molding words with clay;
- ✓ *Text-to-Speech/Speech-to-Text/Language Learning Apps* – using apps like Duolingo, NaturalReader, or Dragon Dictation.

Social communication & Interactive methods. Since many autistic people struggle with spontaneous speech, structured methods for communication can be highly beneficial:

- ✓ *Scripted Dialogues*. In this method people are provided with predictable conversation template.
- ✓ ***Role-Playing scenarios*. Individuals with ASD should practice real-life conversations to improve their social interactions.**
- ✓ *Peer-Assisted Learning.* Creating an environment where an autistic person can practice and collaborate with their peers could be another intervention to improve their language skills. Because individuals tend to learn more effectively and stay motivated when collaborating with their peers.

Conclusion. Language learning process can be challenging for dyslexic and autistic people, but with the right support and guidance, they can succeed. Assistive technology, structured teaching methods and early intervention can help overcome these difficulties. By adjusting educational approaches, we can make language acquisition more accessible and inclusive for everyone.

REFERENCES:

1. **National Joint Committee on Learning Disabilities (NJCLD).** (2018). Definition of learning disabilities.
2. https://doi.org/10.1097/TLD.0000000000000324
3. **Bishop, D. V. M.** (2005). Language cannot be reduced to biology: Perspectives from neuro-developmental disorders affecting language learning. *Behavioral and Brain Sciences, 28*(4).
4. **Shaywitz, S. E., & Shaywitz, J.** (2020). *Overcoming dyslexia* (2nd ed.). New York, NY: Alfred A. Knopf.
5. https://www.understood.org/en/articles/is-dyslexia-genetic
6. **Dyslexia Research Trust.** (n. d.). Genetics of dyslexia.
7. **Lord, C., Brugha, T. S., Charman, T., Cusack, J., Dumas, G., Frazier, T., Jones, E. J., Jones, R. M., Pickles, A., State, M. W., & Others.** (2020). Autism spectrum disorder. *Nature Reviews Disease Primers, 6*, Article 5.
8. **Hazlett, H. C., Gu, H., Munsell, B. C., Kim, S. H., Styner, M., Wolff, J. J., et al.** (2017). Early brain development in infants at high risk for autism spectrum disorder. *Nature, 542*(7641), 348–351.

9. **Hollander, E., Hagerman, R., & Ferretti, C.** (2022). *Textbook of autism spectrum disorder* (2nd ed.). American Psychiatric Association Publishing.
10. **National Institute of Mental Health (NIMH).** (2022). Autism spectrum disorder.
11. Яхшиев, А. А. (2010). Синтактико-текстовая экспрессия как лингвистическая категория (на материале немецкого языка). Вестник Челябинского государственного университета, (29), 174-176.
12. Яхшиев, А. А. (2024, May). ДИДАКТИЧЕСКАЯ СПЕЦИФИКА ДИАЛОГИЧЕСКОЙ РЕЧИ. In Conference Proceedings: Fostering Your Research Spirit (pp. 914-916).
13. Pardaeva, I. (2020). Mesnavi "Tarihi Muluki Ajam"-The fruit of the scientist's rational thinking. Solid State Technology, 63(6), 159-168.
14. Pardaeva, I. M. (2014). ON THE EXAMPLE OF THE ARTISTIC AND HISTORICAL PROSE OF NAVOI IN TURKISH. The Way of Science, 73.
15. Anorqulov, S. (2020). TOPONYMS AS AN OBJECT OF LINGUISTIC RESEARCH. Philology Matters, 2020(1), 129-136.