

PEDAGOGICAL STRATEGIES FOR IDENTIFYING DYSLEXIA: ON THE EXAMPLE OF ASIA AND LATIN AMERICA

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Annotation: Attention is drawn to the significant differences in diagnostic criteria and procedures depending on the linguistic characteristics of the language, educational systems and cultural context. A comparative analysis of diagnostic methods used in Asia and Latin America is conducted, common aspects and significant differences are identified. The article emphasizes the need to take into account sociocultural factors and calls for international exchange of experience to improve the identification and support of individuals with dyslexia worldwide.

Keywords: dyslexia, diagnosis, diagnostic tests, assessment methods, bilingualism and multilingualism.

Dyslexia is a specific reading disorder characterized by difficulties in word recognition, decoding, and spelling, and is a significant problem in education worldwide. With increasing awareness of neurodiversity and the importance of inclusive education, understanding the specifics of dyslexia diagnosis in different cultural and linguistic contexts is becoming increasingly important. Differences in writing systems, teaching methods, and cultural perceptions of reading difficulties lead to different ways of identifying and interpreting dyslexia symptoms in different countries.

Diagnosing dyslexia in Asian countries presents a unique challenge due to the fundamental differences in writing systems compared to alphabetic languages. Hieroglyphic writing (Chinese, Japanese kanji) and syllabic writing (Japanese kana, Korean hangul) require different cognitive processes in reading and writing, which, in turn, affects the manifestation and diagnosis of dyslexia.

Japan: Dyslexia in the context of kanji and kana: Japanese writing combines hieroglyphs (kanji, borrowed from Chinese) and a two-syllabic alphabet (hiragana and katakana). Dyslexia in Japan can manifest itself differently in relation to these writing systems. Studies show that Japanese children with dyslexia may have difficulties in both recognizing and remembering kanji (related to visuospatial and morphological aspects) and in processing kana (related to phonetic aspects).

Adaptation of Western diagnostic instruments: Some Western tests of phonological awareness have been adapted for Japanese, focusing on the syllable level. However, their validity and applicability to kanji reading remain a subject of research.

Development of specific diagnostic measures: Japanese researchers are developing their own instruments to assess reading and writing difficulties, taking into account the specific characteristics of kanji and kana. These tests may include tasks such as kanji recognition, reading of syllabic sequences, phonetic analysis of syllables, and assessment of morphological understanding of kanji (4, 56).

Role of neurobiological research: In Japan, neurobiological research on dyslexia is actively conducted using neuroimaging techniques (e.g., MRI) to study the brain mechanisms underlying difficulties in reading and writing Japanese. These studies will help to better understand the neural correlates of dyslexia in the context of non-alphabetic writing.

China: Hieroglyphic Writing and Dyslexia: Chinese uses a hieroglyphic script (hanzi), in which each character represents a morpheme (a meaningful part of a word) and often has a complex visual structure, and the relationship between a character and its pronunciation is not always clear. Dyslexia in Chinese-speaking children can manifest itself in difficulties with visual recognition and memory of characters, morphological comprehension (understanding the structure of characters and the relationships between them), and phonetic awareness at the syllable level (Chinese is a syllabic language).

Research on Adapting Western Concepts: Researchers are trying to adapt Western concepts of dyslexia, such as phonological processing deficits, to the Chinese context. However, phonological awareness in Chinese manifests itself slightly differently than in alphabetic languages and is related to the understanding of syllables and tones.

Development of specific tests: Specific diagnostic tests are being developed to assess difficulties in reading and writing hieroglyphs. These tests may include tasks such as character recognition, copying, writing under dictation, as well as assessing morphological comprehension and syllabic awareness.

Focus on visual-spatial skills: Given the complex visual structure of hieroglyphs, research is also examining the role of visual-spatial skills in reading and writing in Chinese-speaking children and their relationship to dyslexia.

South Korea: Dyslexia in the context of Hangul: The Korean language uses a syllabic alphabet, Hangul, which is considered one of the most phonetically transparent writing systems in the world. Each syllable in Hangul graphically represents a combination of consonants and vowels. Despite this transparency, Korean children may also have dyslexia, which can manifest itself in difficulties with the automaticity of reading syllables, phonological awareness at the phoneme level (although syllables are the basic unit of writing), and spelling, especially with regard to the rules of syllable formation.

Adaptation and development of tests: As in Japan and China, efforts are underway to adapt existing Western tests and develop new instruments that take into account the

specific characteristics of Hangul. These tests can assess the speed and accuracy of reading syllables and words, phonological awareness at the phoneme and syllable level, as well as writing skills.

Study of cognitive processes: Research in South Korea aims to understand the cognitive processes underlying Hangul reading and how these processes may be impaired in dyslexia (8, 89).

Common trends and challenges in Asia: Late diagnosis: Awareness of dyslexia may be lower in some Asian countries than in the West, which may lead to delayed diagnosis and delayed initiation of remedial work. Cultural influences: Cultural expectations of academic achievement and attitudes towards learning difficulties may influence how dyslexia symptoms are recognized and accepted. Lack of standardized instruments: The development and standardization of diagnostic instruments specific to different Asian languages is still in progress. Many countries rely on adaptations of Western tests, which may not fully capture the specificities of local languages.

Growing interest in research: In recent years, there has been a growing interest in research on dyslexia in the Asian context, leading to a deeper understanding of the phenomenon and the development of more adequate diagnostic and remedial methods.

Overall, the diagnosis of dyslexia in Asia is a complex and evolving field that requires consideration of the specificities of hieroglyphic and syllabic writing systems, as well as cultural and educational contexts. Ongoing research and the development of culturally specific instruments are essential to improve the identification and support of people with dyslexia in this region.

Latin America

The diagnosis of dyslexia in Latin American countries faces a number of specific challenges and exhibits certain commonalities related to linguistic characteristics (mainly Spanish and Portuguese), socioeconomic factors, and the development of educational systems.

Linguistic characteristics (Spanish and Portuguese):

Relatively transparent orthography: Spanish and Portuguese are characterized by more transparent orthography than English or French, where the relationship between letters and sounds is clearer. This means that reading and writing difficulties may manifest themselves somewhat differently in children with dyslexia. For example, phonetic errors may be less common, but problems with reading fluency, decoding automation, reading comprehension, and spelling (especially with respect to rules that do not have proper phonetic correspondence) remain.

The impact of dialects and regional variations: The significant dialectal differences in Spanish and Portuguese across Latin American countries can pose additional challenges in developing and standardizing diagnostic instruments.

Challenges in the availability of standardized diagnostic instruments:

Adaptation of existing tests: Latin American countries often use versions of Western diagnostic tests (mainly English) that have been adapted to Spanish or Portuguese. However, the adaptation process requires careful validation, taking into account the linguistic and cultural characteristics of the local population. Such adaptations are not always comprehensive and do not take into account all the subtleties of the language.

Lack of nationally developed instruments: The development and standardization of diagnostic instruments specifically designed for the Spanish and Portuguese-speaking populations of Latin America are at different stages of development in different countries. Not all countries have sufficient resources to conduct extensive research and develop such instruments.

Problems with normative samples: Even when adapted or locally developed tests are available, it can be difficult to collect representative normative samples that reflect the diversity of a country's population (4, 54).

Role of cultural and socioeconomic factors:

Awareness of dyslexia: The level of awareness of dyslexia among educators, parents, and the community may vary across Latin American countries and regions. A lack of awareness may lead to the attribution of learning difficulties to laziness or lack of effort rather than a specific learning disorder.

Access to education and resources: Socioeconomic inequalities in the region may affect access to quality education and specialized services to diagnose and support children with dyslexia. Access to qualified professionals and diagnostic tools may be limited in rural or underserved areas.

Impact of the education system: The organizational structure and methods of education systems in different Latin American countries can also affect the methods of identifying and supporting students with learning difficulties.

Developments in dyslexia research:

Growing interest: In recent years, interest in dyslexia research has increased in Latin America. Scientists and professionals are actively studying the characteristics of dyslexia in Spanish and Portuguese, as well as developing and validating diagnostic instruments.

Collaboration with international organizations: Collaboration with international research groups and organizations facilitates the exchange of knowledge and best practices in the diagnosis and treatment of dyslexia.

Diagnostic methods:

A combination of psychometric tests and clinical observation: Diagnosis usually involves the use of adapted or locally developed psychometric tests that assess reading, writing, phonological skills, and other cognitive abilities, as well as clinical observation of the learning process and analysis of the child's medical history.

Phonological skills assessment: Despite the transparency of spelling, the assessment of phonological skills (phonological awareness, memory, and speed of access) is also an important part of the diagnostic process.

Reading and writing error analysis: Analyzing the qualitative characteristics of the errors a child makes in reading and writing can help identify specific difficulties.

Use of the RTI model (in some countries): In some Latin American countries, efforts are underway to implement the Response to Intervention (RTI) model to identify and support students with reading difficulties early.

Overall, dyslexia diagnosis in Latin America is a developing field that faces challenges such as a lack of resources, the need to develop and validate culturally specific instruments, and increased awareness. However, growing research interest and collaboration with the international community are helping to improve the understanding and diagnosis of dyslexia in the region.

A comparative analysis of approaches to the diagnosis of dyslexia in different countries of the world has shown a significant diversity of methods and criteria, which are related to the linguistic characteristics of the languages, historically formed educational systems and cultural contexts. From the focus on psychometric assessment and the "Response to Intervention" model in North America, to the linguistic analysis of errors in Germany and the central role of speech therapists in France, each region and country has developed approaches that reflect its own specific conditions and scientific traditions.

Particular attention has been paid to the difficulties of diagnosis in the context of non-alphabetic writing systems in Asia, the problems of availability of resources and standardized instruments in Latin America, and the extreme limitations of research and approaches developed in Africa and Central Asia. These regional reviews have highlighted the need to take into account linguistic and cultural factors in the development of diagnostic procedures and the importance of conducting further research in linguistic environments that have not been sufficiently studied.

Despite the differences, the analysis revealed some common trends, such as the recognition of the importance of phonological skills, the use of psychometric assessment, and the pursuit of interdisciplinary collaboration. However, the lack of uniform international standards, difficulties in adapting instruments, and unequal access to diagnostic services remain serious challenges.

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