

TEACHERS' OPINIONS REGARDING THE LEARNING SKILLS OF BRAZILIAN DYSLEXIC SCHOOLCHILDREN

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Abstract

Dyslexia is described as a difficulty in learning to read, which affects 5-12% of students. The aim of this study was to characterize the opinion of teachers of students with dyslexia in a specific questionnaire on learning skills. 74 teachers of Brazilian schoolchildren with an interdisciplinary diagnosis of dyslexia participated, of both genders, aged from 9 years to 10 years and 11 months from the 3rd to the 5th year of Elementary School I. The teachers answered the Learning Skills Questionnaire, composed of six items: 1) attention skills; 2) visual processing skills; 3) auditory processing skills; 4) logical-mathematical reasoning skills; 5) motor skills; 6) behavioral skills. The questionnaire was filled out by teachers, with responses scored on a scale from 0 to 4 points (Likert Scale). Data for this study were collected from March 2019 to March 2020, before the start of the COVID-19 pandemic in Brazil. The results were analyzed statistically indicating that teachers answered "rarely" and "sometimes" for all categories, except for category 6 (behavioral), which most answers were "never". There was also an indication of "I don't know" for all categories, suggesting that teachers' lack of knowledge regarding behaviors aspects of dyslexic's schoolchildren. The results allowed us to conclude that teachers still need of information about how schoolchildren with dyslexia learn to read, since the results "rarely" and "sometimes" were presented in all categories of academic learning.

Keywords: *Dyslexia, learning, education, educational measurement.*

1. Introduction

Dyslexia is described as a difficulty in learning to read and affects 5-12% of schoolchildren (Norton, Beach & Gabrieli, 2015). Research has reported that reading is a complex task, requiring the integration of multiple visual, linguistic, cognitive and attentional processes (Ziegler et al., 2008). Due to this diversity of manifestations, it is necessary to use procedures, such as questionnaires, in order to verify teachers' opinions on the potential academic markers for this population. The inability to read and understand, present in students with dyslexia, is one of the greatest obstacles to learning, leading to serious educational, social and emotional consequences (Fletcher, 2009). This inability among dyslexic students impairs: decoding (letter-sound association); fluency (ability to read words and texts automatically); and comprehension (proficient reader) (American Academy of Pediatrics, 2009). Consequently, the investigation of learning skills from the perspective of their teachers can collaborate in the identification of educational behaviors among dyslexic students, which in turn can help in the design of clinical and educational interventions, as well as guide the elaboration of orientation and training programs for the teachers of these students.

2. Objective

To characterize the opinions of teachers of dyslexic schoolchildren, using a specific questionnaire on learning skills.

3. Method

This study was approved by the Research Ethics Committee (n° 957,998) of the researchers' home institution. A total of 74 teachers of schoolchildren with an interdisciplinary diagnosis of dyslexia participated in this study. The students were of both sexes, aged 9 years to 10 years and 11 months and from the 3rd to 5th year of Elementary School I. The teachers answered the Learning Skills Questionnaire

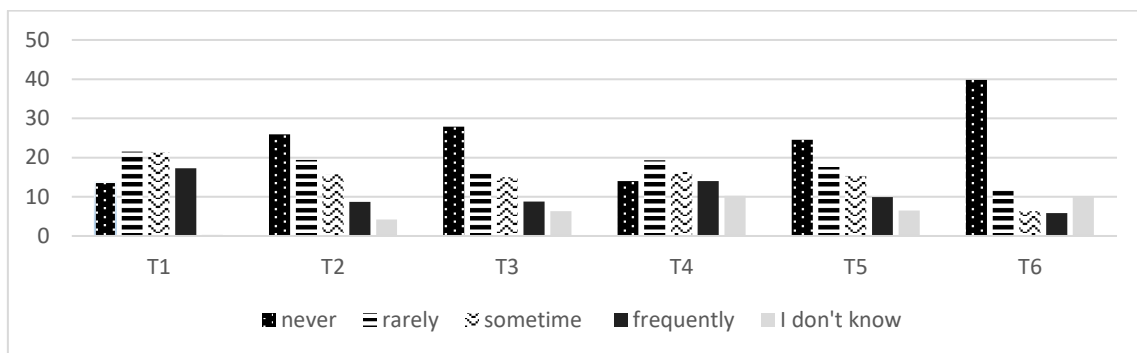
(El Nokali, Bachman & Votruba-Drzal, 2010) (Capellini, Giaconi, & Germano, 2016), comprising six items: 1) attention skills (e.g., difficulty maintaining attention while performing school activities); 2) visual processing skills (e.g., difficulty copying drawings, shapes, and letters from a blackboard or book); 3) auditory processing skills (e.g., speech developmental delay); 4) logical-mathematical reasoning skills (e.g., difficulty in doing mathematical calculations); 5) motor skills (e.g., difficulty in fine or gross motor skills); and 6) behavioral skills (e.g., presence of agitated behavior in the classroom and at home). The questionnaire was completed by the teachers, without influence from the researcher, and the answers were marked on a scale of 0 to 4 points (Likert Scale), according to the possible responses of the instrument, namely “I don’t know”, “never”, “rarely”, “sometimes”, and “frequently”.

Data for this study were collected from March 2019 to March 2020 and therefore prior to onset of the COVID-19 pandemic in Brazil.

4. Results

The results were statistically analyzed using the Statistical Package for Social Sciences, version 22.0. The significance level was set at 5%. Graph 1 indicates the mean of the distribution of the teachers' opinion in relation to each category, with the application of the Chi-Square test, all with statistically significant results (Graph 1).

Graph 1. Distribution of frequencies of teachers' opinions for each category of the Questionnaire. Chi-Square Test ($p < 0.05$).



Graph 1 indicates that teachers responded “rarely” and “sometimes” for all categories, except for category 6 (behavioral), where most responses were “never”. There was also an indication of “I don't know” for all categories, suggesting that the skills present and investigated in the questionnaire are unknown to the teachers as a measure for analysis of their dyslexic students' behavior.

5. Discussion

A study (Dilnot et al., 2017). carried out with parents and teachers indicated that the teachers' responses proved to be a strong predictor for the identification of difficulties in academic performance, since it demonstrated complaints regarding visual, auditory processing, logical-mathematical reasoning had a greater impact than other skills within the educational context. Our findings revealed that auditory and visual processing impairments were related to dyslexic schoolchildren (Snowling et al., 2018) (Carroll, Mundy & Cunningham, 2014). Furthermore, a study (Verhulst, Koot & Van der Ende, 1994) showed that speech, language, auditory and visual processing skills are closely associated with literacy, and dyslexics tend to present deficits in these areas since early childhood education, with a greater impact in the first years of literacy.

6. Conclusion

The results of this study allowed us to conclude that teachers need clarification about the manifestations in the learning of dyslexic students, since the results “rarely” and “sometimes” present in all categories of academic learning were constant. It is important to highlight that these findings suggest a lack of support by Brazilian educational public policies to guide teachers in the identification of difficulties to acquire the skills necessary for learning. Thus, only with specific training and guidance on the characteristics and manifestations of dyslexics in the classroom, will it be possible to guarantee these students an improved quality of educational life.

References

- American Academy of Pediatrics. (2009). Joint statement-learning disabilities, dyslexia, and vision. *Pediatrics*, 124(2):837-44. doi: 10.1542/peds.2009-1445.
- Capellini, S. A., Giaconi, C., & Germano, G. D. (2016). Parents and teachers opinion about learning skills: Comparison between brazilian and italian dyslexic's students. *Dyslexia: Perspectives, Challenges and Treatment Options*, 91-98. NovaPublisher.
- Carroll, J. M., Mundy, I. R., & Cunningham, A. J. (2014). The roles of family history of dyslexia, language, speech production and phonological processing in predicting literacy progress. *Developmental science*, 17(5), 727-742. doi: 10.1111/desc.12153.
- Dilnot, J., Hamilton, L., Maughan, B., & Snowling, M. J. (2017). Child and environmental risk factors predicting readiness for learning in children at high risk of dyslexia. *Development and psychopathology*, 29(1), 235-244. doi: 10.1017/S0954579416000134.
- El Nokali, N. E., Bachman, H. J., & Votruba-Drzal, E. (2010). Parent involvement and children's academic and social development in elementary school. *Child development*, 81(3), 988-1005. doi: 10.1111/j.1467-8624.2010.01447.x.
- Fletcher JM. (2009). Dyslexia: the evolution of a scientific concept- short review. *J Int Neuropsychol Soc*. Jul;15(4):501-8. doi: 10.1017/S1355617709090900.
- Norton ES, Beach SD., & Gabrieli JD. (2015). Neurobiology of dyslexia. *Current opinion in neurobiology*, 30, 73-78. doi: 10.1016/j.conb.2014.09.007.
- Snowling, M. J., Gooch, D., McArthur, G., & Hulme, C. (2018). Language skills, but not frequency discrimination, predict reading skills in children at risk of dyslexia. *Psychological science*, 29(8), 1270-1282. doi: 10.1177/0956797618763090.
- Verhulst, F. C., Koot, H. M., & Van der Ende, J. (1994). Differential predictive value of parents' and teachers' reports of children's problem behaviors: A longitudinal study. *Journal of abnormal child psychology*, 22(5), 531-546. doi: 10.1007/BF02168936.
- Ziegler JC, Castel C, Pech-Georgel C, George F, Alario FX., & Perry C. (2008). Developmental dyslexia and the dual route model of reading: simulating individual differences and subtypes. *Cognition*, Apr;107(1):151-78. doi: 10.1016/j.cognition.2007.09.004.