Questionnaire for Identification of Dyslexia Signs (QUESDI)

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Introduction

Dyslexia is a specific learning disorder that affects word decoding, fluency, reading comprehension, and spelling (American Psychiatric Association, 2014). The early signs are visible throughout the school years, and it is possible to identify these signs through screening questionnaires. Early identification supports a better prognosis, through intervention in emergent reading skills (Cassidy and Cassidy, 2019).

In Brazil, the availability of screening instruments for dyslexia is scarce (Alves, Lima, Salgado-Azoni, Carvalho, Ciasca, 2015). Therefore, we built a screening instrument based on an integrative literature review, as well as based on the Phonological Deficit Theory (Caylak, 2010), named Questionnaire for Identification of Dyslexia Signs (QUESDI). QUESDI is suitable for parents and teachers of children between kindergarten and the third year of elementary school. It is available on the EduEdu application, from the ABCD Institute.

Questionnaire items

The questionnaire is composed of questions about oral language development (phonology, access to the lexicon, phonological awareness), knowledge of letters, spelling (grapheme-phoneme relationship, grammar of the Portuguese language), reading (speed, fluency, comprehension), phonological working memory, family history, reading habits and attention. All items took into account the signs of dyslexia, as well as those that can differentiate it from other diagnostic conditions, according to several scientific studies.

Scoring and results analysis

The instrument's score works as follows: rarely - 1 point; occasionally - 2 points; often - 3 points; always - 4 points. The final score will be based on the sum of all responses by the child's guardian or teacher. The instrument is still in the validation process, but cut-off scores were defined for each age group, considering the skills expected for each school grade. In

the end, the child will be classified as low risk, medium risk, or high risk for dyslexia (Table 1).

Table 1. Cut-off scores and results analysis.

Parents version - child education	
	7 to 14 points - low risk 15 to 21 points - medium risk 22 to 28 points - high risk
Parents version - elementary school	
First year	16 to 34 points - low risk 35 to 46 points - medium risk 47 to 64 points - high risk
Second year	16 to 32 points - low risk 33 to 40 points - medium risk 41 to 64 points - high risk
Third year	16 to 25 points - low risk 26 to 37 points - medium risk 38 to 64 points - high risk
Teachers version - child education	
	6 to 13 points - low risk 14 to 20 points - medium risk 21 to 24 points - high risk
Teachers version - elementary school	
First year	13 to 31 points - low risk 32 to 42 points - medium risk 43 to 52 points - high risk
Second year	13 to 28 points - low risk 29 to 38 points - medium risk 39 to 52 points - high risk
Third year	13 to 24 points - low risk 25 to 36 points - medium risk 37 to 52 points - high risk

References

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QUESDI - Parents version (child education)

Oral language	
1. My child still has speech disorders (e.g., replaces /v/ for /f/, in the word “vaca”, he/she speaks “faca”).	☐ Rarely ☐ Occasionally ☐ Often ☐ Always
2. My child had speech disorders that were not expected for his/her age (e.g., at four years of age, he/she spoke “tota tola”, instead of “coca cola”).	☐ Rarely ☐ Occasionally ☐ Often ☐ Always
3. My child has difficulties learning and remembering names.	☐ Rarely ☐ Occasionally ☐ Often ☐ Always
4. My child has difficulties with nursery rhymes.	☐ Rarely ☐ Occasionally ☐ Often ☐ Always

Letter knowledge	
5. My son recognizes and knows the name of the letters.	☐ Rarely ☐ Occasionally ☐ Often ☐ Always

Family history	
6. There are people in my family who have/had difficulties with speech or reading.	☐ Rarely ☐ Occasionally ☐ Often ☐ Always

Reading habits	
7. My child is interested in children’s books.	☐ Rarely ☐ Occasionally ☐ Often ☐ Always

QUESDI - Parents version (elementary school)

Oral language	
1. My child still has speech disorders (e.g., replaces /v/ for /f/, in the word “vaca”, he/she speaks “faca”).	☐ Rarely ☐ Occasionally ☐ Often ☐ Always
8. My child had speech disorders that were not expected for his/her age (e.g., at four years of age, he/she spoke “tota tola”, instead of “coca cola”).	☐ Rarely ☐ Occasionally ☐ Often ☐ Always
2. My child has difficulties learning and remembering names.	☐ Rarely ☐ Occasionally ☐ Often ☐ Always
3. My child has difficulties with nursery rhymes.	☐ Rarely ☐ Occasionally ☐ Often ☐ Always

Letter knowledge	
4. My child recognizes and knows the name of the letters.	☐ Rarely ☐ Occasionally ☐ Often ☐ Always

Spelling	
5. My child replaces letters in writing. E.g.: when writing the word “vaca”, he/she writes “faca”.	☐ Rarely ☐ Occasionally ☐ Often ☐ Always
6. My child reverses or omits letters in writing. E.g.: when writing the word “prato”, he/she writes “parto” or “pato”.	☐ Rarely ☐ Occasionally ☐ Often ☐ Always

Reading	
9. My child has difficulties reading new words.	☐ Rarely ☐ Occasionally ☐ Often ☐ Always

10. My child has difficulties with rhythm, speed, and intonation of reading.	☐ Rarely ☐ Occasionally ☐ Often ☐ Always
11. When I compare my child's reading performance with other children's performances, I see that other children are reading much better than he/she is.	☐ Rarely ☐ Occasionally ☐ Often ☐ Always
12. My child has difficulties with reading comprehension.	☐ Rarely ☐ Occasionally ☐ Often ☐ Always

Memory

13. My child easily forgets information that he/she just read.	☐ Rarely ☐ Occasionally ☐ Often ☐ Always
14. My child easily forgets information that he/she just heard.	☐ Rarely ☐ Occasionally ☐ Often ☐ Always

Family history

15. There are people in my family who have/had difficulties with speech or reading.	☐ Rarely ☐ Occasionally ☐ Often ☐ Always
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Reading habits

16. My child is interested in children's books.	☐ Rarely ☐ Occasionally ☐ Often ☐ Always
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Attention

17. My child listens carefully to instructions for performing daily activities at home (e.g., asking to pick up an object and put it away).	☐ Rarely ☐ Occasionally ☐ Often ☐ Always
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QUESDI - Teachers version (child education)

Oral language	
1. My student still has speech disorders (e.g., replaces /v/ for /f/, in the word “vaca”, he/she speaks “faca”).	☐ Rarely ☐ Occasionally ☐ Often ☐ Always
2. My student had speech disorders that were not expected for his/her age (e.g., at four years of age, he/she spoke “tota tola”, instead of “coca cola”).	☐ Rarely ☐ Occasionally ☐ Often ☐ Always
3. My student has difficulties with nursery rhymes.	☐ Rarely ☐ Occasionally ☐ Often ☐ Always

Letter knowledge	
4. My student recognizes and knows the name of the letters.	☐ Rarely ☐ Occasionally ☐ Often ☐ Always

Memory	
5. My student easily forgets information that he/she just heard.	☐ Rarely ☐ Occasionally ☐ Often ☐ Always

Attention	
6. My student can perform activities when requested in the classroom, according to his/her level of development.	☐ Rarely ☐ Occasionally ☐ Often ☐ Always

QUESDI - Teachers version (elementary school)

Oral language	
1. My student still has speech disorders (e.g., replaces /v/ for /f/, in the word “vaca”, he/she speaks “faca”).	☐ Rarely ☐ Occasionally ☐ Often ☐ Always
2. My student had speech disorders that were not expected for his/her age (e.g., at four years of age, he/she spoke “tota tola”, instead of “coca cola”).	☐ Rarely ☐ Occasionally ☐ Often ☐ Always
3. My student has difficulties with nursery rhymes.	☐ Rarely ☐ Occasionally ☐ Often ☐ Always

Letter knowledge	
4. My student recognizes and knows the name of the letters.	☐ Rarely ☐ Occasionally ☐ Often ☐ Always

Spelling	
5. My student replaces letters in writing. E.g.: when writing the word “vaca”, he/she writes “faca”.	☐ Rarely ☐ Occasionally ☐ Often ☐ Always
6. My student reverses or omits letters in writing. E.g.: when writing the word “prato”, he/she writes “parto” or “pato”.	☐ Rarely ☐ Occasionally ☐ Often ☐ Always

Reading	
7. My student has difficulties reading new words.	☐ Rarely ☐ Occasionally ☐ Often ☐ Always
8. My child has difficulties with rhythm, speed, and intonation of reading.	☐ Rarely ☐ Occasionally ☐ Often ☐ Always

9. When I compare my child's reading performance with other children's performances, I see that other children are reading much better than he/she is.	☐ Rarely ☐ Occasionally ☐ Often ☐ Always
10. My child has difficulties with reading comprehension.	☐ Rarely ☐ Occasionally ☐ Often ☐ Always

Memory

11. My student easily forgets information that he/she just read.	☐ Rarely ☐ Occasionally ☐ Often ☐ Always
12. My student easily forgets information that he/she just heard.	☐ Rarely ☐ Occasionally ☐ Often ☐ Always

Attention

13. My student is able to perform assignments when prompted for classroom activities (e.g., asking to pick up the math book and turn it to page 34).	☐ Rarely ☐ Occasionally ☐ Often ☐ Always
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