



Characterization Of Portuguese Students At Risk Of Specific Learning Disabilities Based On Results Of Curriculum-Based Measurement In Reading Comprehension

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Session Information

05 SES 05.5 PS, General Poster Session

General Poster Session

Time: 2019-09-04
12:15-13:15

Room: Poster Tent

Chair:

Contribution

This poster aims to present results from a study that aimed to characterize Portuguese students at risk of specific learning disabilities based on results of curriculum-based measurement (CBM) in reading comprehension. Additionally, the objectives of the study were to show 1) the differences between students at risk and not at risk; 2) qualitative data related to environmental and personal factors that were present in students considered at risk; 3) acceptance and reliability of the CBM probe.

This study was conducted within a Response to intervention Model, which is a multi-tiered system of prevention that integrates assessment and intervention, to maximize students' achievement (Heinemann, Bolanos, & Griffin, 2017; NCRI, 2019). It includes four components: universal screening, multi level prevention, progress monitoring and data-based decision making. The universal screening assessment of all students, in regular class, aims to identify, as early as possible, those who are at risk. These students at risk need additional and intensive instruction integrated in a multi level prevention and intervention system, organized in intensive tiers of instruction, to improve learning outcomes. During the different tiers of intensive intervention is

made, weekly or monthly, the progress monitoring of these students. Data-based decision making consists in consider the results of the progress monitoring for future intervention and in the tier change (D. Fuchs, Fuchs, & Compton, 2012; Heinemann et al., 2017; NCRI, 2019).

Curriculum-based measurement (Deno, 1985) in reading has been used for universal screening and progress monitoring within a response to intervention conceptual model as it is a technically adequate system of school-wide screening and progress monitoring in reading that promotes an early identification of students at risk academically for specific learning disabilities in reading (D. Fuchs et al., 2012; L. S. Fuchs & Fuchs, 2007). Curriculum-based measurement consists in used short-term and easy-to-administer tests and is administered and quoted in a standardized manner (L. S. Fuchs & Fuchs, 2007). This results in indicators of overall proficiency in the academic areas evaluated (for example in reading) (Stecker, Lembke, & Foegen, 2008). To understand reading comprehension, we can use Maze-probes (Busch & Lembke, 2005) that consists of students reading silently text passages. Every seventh word is deleted and replaced with three word choices and students have to select the correct word from each set of word choices (Deno et al., 2009).

In the scope of the preventive approach that characterizes Level 1 of the Response to Intervention model, it is important to deepen the knowledge about students at risk in reading, namely with regard to the risk factors that may be associated with them. This are, for example, physical and clinical conditions, as well as differences in language acquisition and development, and then to a set of predictors that may be present at school (Snow, Burns, & Griffin, 1998). Together, knowledge of risk factors and the information obtained with curriculum-based measurement will be useful in the early identification of their difficulties, in the preparation of appropriate intervention (McCardle, Scarborough, & Catts, 2001; Scarborough, 1998) and therefore in preventing more severe difficulties (Burns, Griffin, & Snow, 1999).

Therefore, within the above-mentioned context, this study, can contribute to the field of Specific Learning Disabilities in reading in Portugal and in many other countries, which have educational systems characterized by a lack of a technically adequate system of school-wide screening and progress monitoring that can promote an early identification of students at risk academically for developing reading disabilities.

Method

A quantitative research was carried out within a sample of 82 third grade students from a School Cluster in the north of Portugal. Data were collected using a CBM Maze probe three times a year and analyzed by descriptive and inferential statistics. Students considered at risk were those with results below the 20th percentile. Additionally we characterized the risk factors that were found in the students that below the 20th percentile. To collect that data we used a questionnaire.

Expected Outcomes

Our results show that: a) The Maze probes received excellent acceptance among both teachers and students, although it was used in the district for the first time; The test retest reliability analysis show that the values of the Person's correlation ranged from .647 to .831 when considering different score rules. Additionally, when considering the score rule of "count the number of

correct choices selected prior to the first of three consecutive errors", at the end of 3rd grade: d) The benchmark was 15.99 (DP=5.889), and the annual growth rate was .27 (DP=.16); e) Girls (M=16.23) presented a higher average value than boys' (M=15.66); f) Ten students were considered at risk throughout the whole school year; g) The mean results from students who were never at risk (M=18.91) was significantly higher than the mean results from those who have been at risk throughout the year M=8.30; h) the annual growth rate of students who were never at risk (.32) was significantly higher than the growth rate of students who were at risk throughout the whole year .18; i) the Matthew effect was visible in our results when we compare students at risk with those not at risk; finally j) the articulation problems, delay in language development and the absence of reading experience in pairs with their parents stand out as reading risk factors in these participants. The presentation of the above mentioned results will give us the opportunity to discuss the advantages of the existence of early intervention programs for students at risk, as well as of a school-wide screening and progress monitoring system.

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