CAN WE CONSIDER THAT READING COMPREHENSION TESTS ASSESS THE SAME PROCESSES?

Gottheil, B. * **, Aldrey, A. *, García Fernández, S. *, Melman, M. *, Barreyro, J.P. *

* Equipo de investigación Indago
** Universidad Nacional de San Martín, Buenos Aires, Argentina
*** Universidad de Buenos Aires / CONICET Argentina

@ indagopsicopedagogia@gmail.com   www.leetestdelecturayescritura.com

» INTRODUCTION

Reading comprehension (RC) is a complex task that requires the orchestration of many different cognitive skills and abilities (Oakhill, Cain & Elbro, 2015). The reader has to be able to decode both accurately and rapidly. But, although decoding and fluency are of importance to RC, the latter requires many additional skills, such as extensive (and in depth) vocabulary, comprehension monitoring, and others. Recently, there has been concern about the relative importance of different contributory skills in the assessment of reading comprehension (Keenan & Meenan, 2012). We explored this issue in three frequently-used Spanish language Reading and RC tests. In Argentina, there is not a wide range of standardized tests: the ones we selected for this study are standardized in Chile (CLP) and in Argentina (LEE and TECLE). These three tests assess RC in children between 9 and 10 years old: LEE test (Defior, Fonseca,

Gottheil, Aldrey, et al, 2006), CLP (Alliende, Condemarin & Milicic, 2202) and TECLE (Marín & Carrillo, 1999, Cuadro, Costa, Trias y Ponce de Leon, 2009). In this study we assessed both Word Reading (accuracy and speed) and General Reading Comprehension (GRC) by means of all three tests.   The conclusions drawn from the study will be a useful guide in our research, as they will help us better define and diagnose comprehension deficits in future therapeutic interventions.

Although these tests are all designed to assess RC, their different formats may influence the outcomes. The LEE test is a one-to-one test (child-Educational Psychologist), while the CLP and the TECLE tests are group-administered screening tests, which include multiple-choice answers.
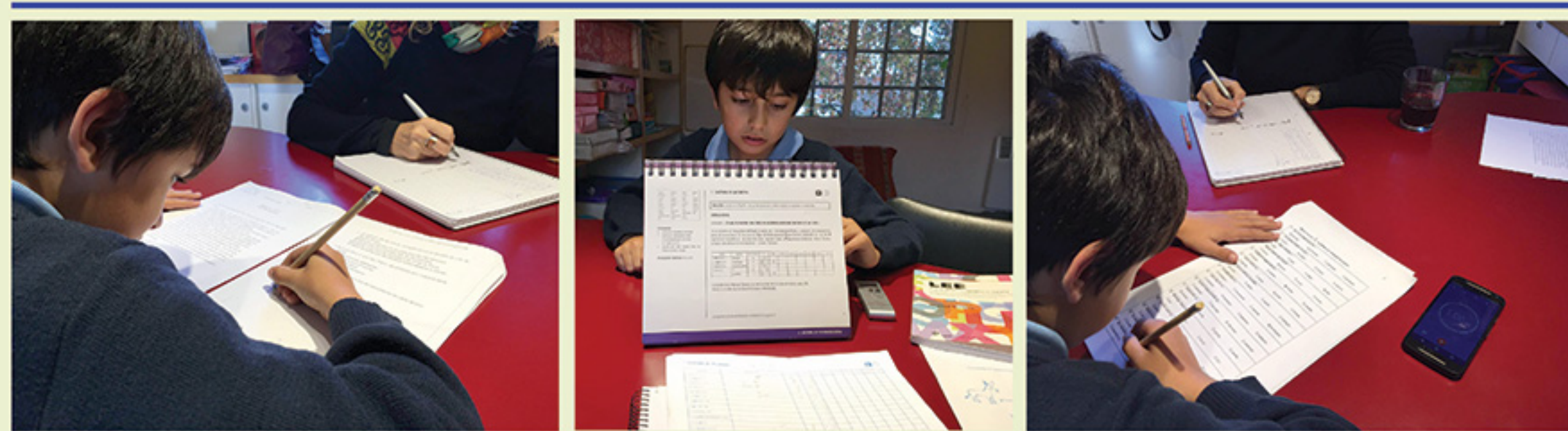
› PURPOSE

The purpose of this study is to compare the relative skill requirements of three different Spanish-language assessments of reading comprehension (RC): The TECLE, CLP and LEE tests.

› METHOD

Participants: 112 children between 9 and 10 years old selected randomly from whole classes from three different middle class Argentine schools.

› MATERIALS:

TESTS APPLIED		DESCRIPTION	ASSESSMENT MODALITY	TIME MEASURING
LEE	LEE Word decoding	Assesses word decoding (accuracy, speed and fluency) using 42 words.	Individual	X
	LEE RC.	Assesses reading comprehension through 2 expository texts and 1 narrative text followed by 6 questions that require literal information, inferential processing and 2 multiple-choice questions involving macrostructure awareness.	Individual	X
CLP	RC for 4°	Assesses reading comprehension through 1 narrative text, with 7 multiple-choice questions.	Individual or group	
TECLE		Assesses RC and word decoding by means of sentence comprehension. The test comprises 64 unrelated sentences, and the task is to select a word (from a choice of 4) to complete each sentence.	Individual or group	X
WISC IV	Vocabulary	Assesses productive vocabulary through oral definitions of different target words.	Individual	
	Comprehension Monitoring experimental test	Assesses comprehension monitoring through 10 short narrative texts in which children have to detect pseudo words, contradictory information or specify there are no problems.	Individual or group	

› RESULTS

A correlation analysis between the variables was conducted to study the relation between TECLE, CLP, GRC from LEE test, Vocabulary, Monitoring, and Word Reading Accuracy and Speed from the LEE test. The correlations are shown in Table 1. As can be seen, the correlations between the three tests are not very strong (r < .38).

Table1. *Correlation between RC tests, Vocabulary, Word reading accuracy and speed, and Comprehension Monitoring*

	1.	2.	3.	4.	5.	6.
1.TECLE	1					
2. CLP Reading Comprehension	.38**	1				
3. LEE Reading Comprehension	.26**	.32**	1			
4. Vocabulary	.22*	.38**	.43**	1		
5. Comprehension Monitoring	.23*	.39**	.28**	.29**	1	
6. Accuracy of Word Reading Word	.68**	.39**	.30**	.28**	.33**	1
7. Speed of Word Reading	-.64**	-.28**	-.20**	-.28**	-.28**	-.65**

*** p < .01, * p < .05*

Regression analyses were carried out for each test separately, to assess the relative contribution of the comprehension sub-skills (word reading, vocabulary, comprehension monitoring) to each of the Spanish language assessments of RC: The TECLE, CLP and GRC LEE tests. Each regression analysis included three steps. First, Word Reading Accuracy and Speed, second Vocabulary and third, Comprehension Monitoring . Figure 1 shows the ΔR2 for each successive step, for each of the RC tests separately.

FIGURE 1.
Prediction of the three comprehension tests by Word Reading Accuracy and Speed (Step 1), Vocabulary (Step 2) and Monitoring (Step 3). The values represent ΔR2 for each successive step, with the first step at the bottom of each column and the final step at the top.
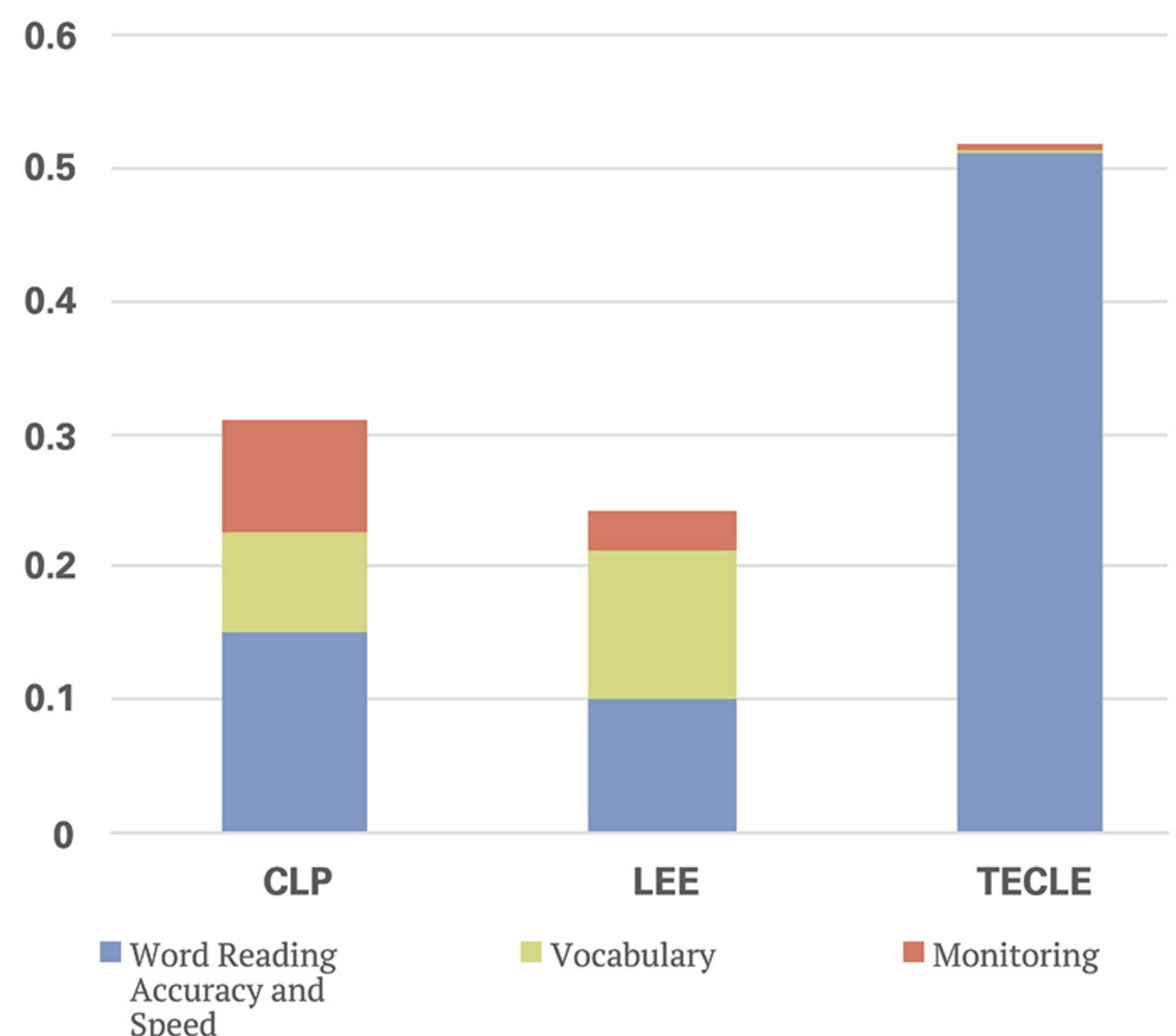
● DISCUSSION

Though TECLE is supposed to be a test of Reading and RC, in this study we found that performance on this test in children between 9 and 10 years old, is almost exclusively predicted by word reading speed and accuracy. CLP and GRC LEE, in contrast, are tests that are much more dependent on skills known to be related to RC. Although, both CLP and GRC LEE also have a decoding component (accounting for about 10-15% of variance in overall performance), vocabulary skill and comprehension monitoring each predicted additional variance in performance on these two tests. This information could be helpful for professionals who use these tests to help them both to appreciate which reading components are being assessed by a particular test, and to reach more conclusive and accurate diagnoses. In addition, this study shows once again (Keenan & Meenan, 2012) that this information will also be useful for research purposes. We consider that further investigations should include other Spanish RC tests in order to continue to delineate the underlying skills.

Our study addressed tests in Spanish that we consider valid in Buenos Aires, Argentina, in relation to our cultural context and vocabulary. It would be interesting to carry out a comparative study similar to the current study to prove the difficulty existing in assessing reading comprehension considering that different assessments of RC may vary the performances because of the different vocabulary-associated cultural contexts.

Also, it would be interesting to carry out a study focused on the same type of research to measure different RC skills depending on the developmental level. (Keenan & Betjemann, 2008), As Keenan & Meenan (2012) point out, different assessments of RC are differentially dependent on different underlying sub-skills. It would be useful to include other skill correlations in a similar study, such as working memory, inference generation, etc., in order to help us reach conclusions on the specific RC skills assessed with different Spanish tests.

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