

## **The Issue of Readability in the Chilean EFL Textbook**

### **El Problema de la Lecturabilidad en el Texto Escolar de ILE Chileno**

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#### **Abstract**

At the end of high school in Chile, it is expected that students achieve a B1 English language proficiency level. In the present article, we measure the level of readability of the texts used in the new EFL Chilean textbook and compare it with the readability level of the texts used in the Cambridge B1 preliminary exam to check its appropriacy. The results reveal that, even though the classic readability indices show a similar level of difficulty in the texts, the index RDL2, which is specific for second language learning, shows that there is a statistically significant difference. This finding indicates that the texts in the Chilean EFL textbook are more difficult to read than the ones students are supposed to read. Implications at a local and international level are then shared.

*Keywords:* ESL, readability, reading comprehension, textbook

#### **Resumen**

Al finalizar la enseñanza media, se espera que los estudiantes chilenos alcancen un nivel B1 de competencia en inglés. En el presente artículo medimos el nivel de lecturabilidad de los textos usados en el libro escolar de ILE y los comparamos con el nivel de lecturabilidad de los textos B1 usados en el examen *B1 Preliminary de Cambridge* para confirmar su pertinencia. Los resultados revelan que aun cuando los índices clásicos muestran un nivel similar de dificultad, el índice RDL2, específico para el aprendizaje de segundas lenguas, muestra una diferencia estadísticamente significativa. Este hallazgo indica que los textos usados en el contexto de ILE chileno están por sobre el nivel de dificultad del

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que se supone los estudiantes deberían leer. Finalmente, se comparten las implicancias a nivel local e internacional de estos hallazgos.

*Palabras clave:* ILE, lecturabilidad, comprensión lectora, texto escolar

## Introduction

The globalized world requires citizens able to communicate in oral and written form with each other. One of the main ways in which people nowadays interact with the world is by means of reading since it helps people access the general as well as specific knowledge in the current society (Hedgcock & Ferris, 2009; Oxford, 2017). To participate in the global conversation and thus be part of this modern world, several countries have created policies that favor actions which they believe may have a positive impact on the development of world citizens. Chile has not been the exception (Yilorm, 2016). In fact, in the case of Chile, English language learning has gained significant relevance in the last couple of decades which has resulted in initiatives such as the program ‘English Opens Doors’ whose main purpose has been to promote the professional development of Chilean EFL teachers (British Council, 2015). In addition, the Ministry of Education has worked on aligning the schools’ standards with the Common European Framework of Reference for languages (CEFR): at the end of primary education students should reach an A2 proficiency level while at the end of high school students should reach a B1 proficiency level of English (Gobierno de Chile, 2014).

One of the main problems in Chile is the distribution of wealth, which generates inequality in different areas of life. One of them is education (Mieres-Brevis, 2020; OECD, 2021). In Chile, there are currently three types of schools: private, subsidized, and public. Private schools are financed by private entities and request high monthly fees from parents; thus, they tend to be the choice for high-income families. Subsidized schools are partially financed by the government and mainly run by religious congregations or foundations; these schools are more accessible to parents than private schools. Finally, public schools, which are run by the government, are for free. These schools have shown to cater to different kinds of population and get different results in terms of learning. Private schools significantly outperform subsidized as well as public schools (Carrasco-Bahamonde & Carrasco-Bahamonde, 2018). Solving this inequality has been one of the main concerns of different Chilean governments (Glas, 2008). For example, in the case of English language learning, to bridge the gap between private and government funded schools, the Ministry of Education created the English Opens Doors Program in 2004. This program oversees standards for English language learning as well as develops strategies and initiatives that contribute to EFL teachers working in government funded schools.

Despite government efforts, standardized national evaluations of EFL have consistently showed that private schools score significantly higher than subsidized and public schools (Toledo-Sandoval & González-Hermosilla, 2016). For example, in 2012, the national standardized EFL exam for 11<sup>th</sup>-grade students showed that whereas 81% of students from private schools got the expected results, only 15% from partially governmentally financed schools and barely 7% of students from public schools did (Quality Education Agency, 2012). In 2014, the gap between students of low and high socioeconomic status kept on showing this tendency since 88.6% of students of low socioeconomic status achieved a proficiency level lower than A1. On the other hand, in the case of high socioeconomic status, only 4.1% did not achieve an A1 proficiency level (Quality Education Agency, 2015). In 2017, the results were similar. Only 9% of low socio-economic status students achieved the expected standard in contrast with high socioeconomic status students who achieved the standard in an 85% of cases (Quality Education Agency, 2018). During the pandemic, national evaluations have not been carried out as usual, but considering the general results, it is likely that this difference is still present or made even bigger.

A pedagogical resource of particular importance in public education in Chile is the textbook. The textbook is understood in the corresponding literature as a fundamental venue of pedagogic discourse which helps students get familiar with the contents of the subjects covered in a school curriculum (Bernstein, 1990; Ibáñez et al., 2019). From a systemic functional linguistics perspective, this is viewed as a macro-genre whose main purpose is to develop both declarative and procedural knowledge relevant to different knowledge domains (Martin & Rose, 2008; Rose, 2014). Considering the strategic importance of the school textbook in students' learning, the Chilean government makes the yearly effort to provide all students with one textbook for each of their subjects in governmentally financed schools. These textbooks are exclusively produced for these types of schools and their commercialization is absolutely forbidden.

Although this pedagogical resource could be one of the key elements to bridging the gap between private and public/subsidized schools, little is known about the effectiveness of this material in the Chilean classroom, and the few studies conducted appear to question its appropriacy from the teachers' perspective (Díaz Larenas et al., 2015; Lizasoain & Vargas Mutizabal, 2023). To complement these findings related to perceptions, the present study seeks to explore the school textbook from a textual perspective, specifically, the aim of this study is to compare the level of readability of the texts used in the reading comprehension sections of the textbook provided by the Ministry of Education for 11<sup>th</sup> and 12<sup>th</sup> grade with the level of readability of the texts encountered in B1 exams. The findings of this study should contribute to the incipient discussion on the appropriacy of the EFL textbooks distributed by the Ministry of Education as well as how the teacher can adapt them to their lessons.

## Literature Review

### *Traditional Readability Formulas*

Easily put, readability is the degree of difficulty with which a text can be read and understood (Campos et al., 2014). Since the inception of the concept, one of the main concerns has been to identify the textual features that tend to make readers struggle with building meaning from texts. Zamanian and Heydari (2012) indicate multiple benefits of readability formulas such as the capacity to help textbook writers lower the difficulty of the material they design and the predictive power they have over finding out potential difficulties readers could face ahead of time. Despite the importance of these advantages, one application still tends to be deemed as the most relevant: text simplification with pedagogical purposes. That is, matching the difficulty of a text with a reader of a particular level. Crossley et al. (2017) indicate that this is an effective way to address the scaffolding of literacy challenges since it helps make texts accessible to students that otherwise would not be able to read and understand a particular material.

To do this matching as objectively as possible, readability formulas for texts written in English have been designed since the first half of the twentieth century. A readability formula is an equation whose main purpose is to estimate the difficulty level of a text objectively. To this date, more than two hundred readability formulas have been created (Crossley et al., 2017). Nonetheless, a selected few are used on a regular basis. These are characterized by usually considering surface text level variables, such as the number of words or the length of a sentence. These formulas are usually referred to as ‘traditional’ readability formulas (Crossley et al., 2011, 2017; McNamara et al., 2014). Some of the most famous traditional readability formulas are Flesh Reading Ease (Flesch, 1943, 1948), Flesch-Kincaid Grade Level (Kincaid et al., 1975), and Dale-Chall (Dale & Chall, 1948).

Flesch (1948) presented a review of a previous formula he had designed (Flesch, 1943) as well as material for its application and interpretation. This revised version is still widely used and incorporated in websites for readability analysis and even in Microsoft Word. Flesch Reading Ease formula took into consideration the following two elements for the readability formula equation: word length ( $wl$ ) and sentence length ( $sl$ ):  $RE$  (reading ease) =  $206.835 - 846w/l - 1015s/l$ . The interpretation of the result of this formula requires the use of an interpretation table that goes from 0 to 100. The lower scores indicate a higher degree of text difficulty.

Kincaid et al. (1975) revisited this formula and analyzed its application to readability texts used in the US Navy. After conducting a study with 531 subjects, the researchers concluded that a new formula could be used to approximate the text difficulty to grade levels in a direct manner.

GL (grade level) =  $0.4 (\text{words/sentence}) + 12 (\text{syllables/word}) - 16$ . Even though this formula was generated for the US Navy personnel, it is still implemented in different studies that have expanded the scope of its application to EFL (Brown et al., 2012; Lin, 2010).

A third traditional readability formula is that of Dale and Chall (1948). These researchers designed a formula based on two counts which were average sentence length and number of unfamiliar words. They operationalized unfamiliar words as those that were outside of the Dale list of 3000 familiar words. In their instructional article, the authors explain step by step how to calculate the readability of a text. In addition, the authors include a table that helps get grade-levels based on the raw scores the formula gives.

As it can be noticed, these three traditional readability formulas share in their essence the consideration that surface text features related to words (number/length/familiarity), syllables (number per word/sentence), and sentences (number/length) were considered the main deciding factors when determining text difficulty.

More recently, researchers dedicated to the study of readability formulas have advocated for the inclusion of variables that go beyond the surface text level. One of the main instruments of easy access to measure different indices that may impact on text difficulty is Coh-Metrix (Crossley et al., 2008). Coh-Metrix is a discourse technology that uses theory from psycholinguistics and cognitive accounts of text processing to deliver indices that explain the difficulty of a text. To do this, this computational tool makes use of computational linguistic resources such as Part of Speech tagging, parsers, lexicons, and latent semantic analysis (LSA). 106 are the indices that Coh-Metrix offers to examine the readability of a text. These indices include classic standards of readability such as number of words and number of sentences, but also delivers other types of indices such as content word overlap and adjacent sentence similarity (McNamara et al., 2014). This tool has been used to estimate text difficulty level not only in education (Crossley et al., 2017) but also in other areas such as health (Wolfe et al., 2022).

### ***Readability Formulas in EFL/ESL***

In the case of EFL, some researchers have investigated the connection between traditional readability formulas and the ways in which readability is assessed in EFL/ESL contexts (Brown, 1998; Crossley et al., 2008; Greenfield, 1999; Hamsik, 1984). Like what happens with most traditional readability formulas, the concern around EFL/ESL studies has been with surface level text indices that appear to impact the difficulty of the students' reading experience. This concern has translated into the application of traditional reading formulas with EFL/ESL readers.

In a seminal study in SLA, Hamsik (1984) sought to determine if the readability formulas Flesch, Dale-Chall, Fry Graph, and Lorge measured text readability for ESL students in a

similar way they did with native speakers. As a measure for reading comprehension, the researcher used the Miller-Coleman Readability Scale whose results then they correlated to the readability formula results of those passages. The findings of the study confirmed that there was a correlation between the results of the cloze scores and the readability formulas scores. That is, the four readability formulas could be said to measure the difficulty of the texts appropriately for ESL students. Even though these findings were published years ago in a dissertation, they are still cited and sometimes taken for granted (Maarof, 2016). Conversely, other researchers have questioned them due to the small size of the sample (Crossley et al., 2008; Greenfield, 1999).

Brown's (1998) article on the design of a readability index for EFL learners can be considered one of the pioneering works on specific formulas designed for EFL learners. The researcher tested the application of traditional readability formulas by using cloze procedures on fifty library passages which were then read by 2300 Japanese EFL students. The results of this study showed minor correlations which indicated traditional readability formulas, such as Flesch and Flesch-Kincaid, were not appropriate for EFL learners. To respond to this dilemma, the author developed an L2 readability measure that considered the average number of syllables per sentence, the average passage frequency, the percentage of words over seven letters long, and the percent of function words present in the text. This measure is known as Brown's EFL Readability Index. The following diagram shows the formula (Zamanian & Heydari, 2012):

$$\begin{array}{r}
 \hline
 38.7469 \\
 + (.7823 \times \text{syllable/sentence}) \\
 + (-126.1770 \times \text{passage frequency}) \\
 + (1.2878 \times \text{percent long words}) \\
 + (.7596 \times \text{percent function words}) \\
 \hline
 \end{array}$$

Another similar research effort was that of Greenfield (1999) who investigated the validity of the readability formulas of Flesch, Flesch-Kincaid, Coleman-Liau, and Dale-Chall with ESL Japanese students. The task used in this study was cloze testing following Bormuth's (1971) readability study. The difficulty of the passages was compared with the difficulty measured by each of the traditional formulas selected. The Pearson correlations between traditional formulas and cloze scores ranged from 0.6 to 0.86. These results indicated that the traditional formulas were probably valid for Japanese EFL students. To explain the difference with Brown's (1998) results, the author has mentioned that Brown's selected texts lacked variety in terms of difficulty, thus, the readability formulas were not able to discriminate as they were intended to (Greenfield, 2004). Despite the positive results, the author designs an improved, easy to use readability formula, the Miyazaki Index. The Miyazaki EFL Readability

Index is as follows (Zamanian & Heydari, 2012), 164.935- (18.792 x letters per word) – (1.916 x words per sentence).

More recently, another formula for ESL has been designed: the RDL2 index. The RDL2 index considers content word overlap, adjacent sentence syntactic similarity, and word frequency (Crossley et al., 2008, 2011). The formula was designed using a similar procedure than the one used by Greenfield (1999) but shows a higher correlation (0.93):

$$\begin{array}{r} \hline -45.032 \quad + (52.230 \times \text{CRFCWO1}) \\ \quad \quad \quad + (61.306 \times \text{SYNSTRUT}) \\ \quad \quad \quad + (22.205 \times \text{WRDFRWQmc}) \\ \hline \end{array}$$

The main difference and advantage of this formula lies on the fact that it goes beyond surface level variables of the text, such as number of words or sentences. Specifically, it also considers features related to text cohesion, which has been a characteristic given prominence to in psycholinguistics as well as in cognitive models of reading that explain reading comprehension. Crossley et al. (2011) examined if this formula classified text level in a better way than traditional formulas. The findings of their study showed that the RDL2 index outperforms traditional readability formulas in terms of the degree of accuracy with which it predicts text difficulty.

These readability formulas have been used to assess text difficulty for ESL/EFL learners in recent years. Carcamo (2020) used traditional as well as the RDL2 index to measure the readability of the texts included in the official Chilean EFL textbooks that the Ministry of Education distributed in subsidized and public schools. The main objective of this study was to determine if there was a progression in terms of text level during the four years of high school. The results of this study revealed that there was not a clear progression in terms of difficulty in the text used. In fact, the average of the text difficulty in second and fourth year of high schools was not statistically significant. Some of the studies conducted in other countries have used the RDL2 index to measure text difficulty and compare it to other variables such as student's perception (Hakim et al., 2021), analysis of the readability of the textbooks used to teach preservice EFL teachers (Odo, 2018), and evaluation of the quality of the material used to prepare students for high college entrance examinations (Cheng & Chang, 2022).

All in all, research focused on EFL textbooks in Chile is quite limited. In fact, even though research in Chile has increased, little to none of it has centered on this object of study. This is quite alarming considering that EFL teachers in Chilean public and subsidized schools appear to be dissatisfied with the material provided by the Ministry of Education (Lizasoain & Vargas Mutizabal, 2023). To understand in further depth why this may happen, it is necessary to examine the EFL textbook provided by the Ministry of Education.

## Method

### *Research Design*

The current study, which was conducted in the first half of 2022, takes a quantitative approach to textbook analysis focusing on the pedagogical value of the material provided to the students (Nicholls, 2003). Pedagogical value is understood in this research as whether the material is appropriate to the expected standard the Ministry of Education has set and therefore offers useful exposure to the foreign language being learned. In the case of this study, students that finish high school in Chile are expected to be at a B1 English language proficiency level. Consequently, the textbook should take into consideration texts of said difficulty.

### *Corpus*

The compiled corpus consisted of all the texts used in the reading comprehension sections of the textbook *Get Real*, which was specifically designed to be used in the last two years of high school in public and subsidized schools of the country. It is worth mentioning that this textbook is provided to all the schools financed by the state, so that all EFL teachers and students have access to it. The textbook consists of eight units. Each unit has sections that consider reading comprehension, listening comprehension, project work, language focus, and literature in a relatively consistent manner. Regarding reading comprehension, every unit has two reading comprehension sections, except for Unit 1 which has three. This resulted in 17 texts that were part of the corpus. To create the B1 corpus, we opted for the use of B1 preliminary exam booklets, which were edited by Cambridge University Press (2019, 2020), the official source of this international exam.

### *Procedure*

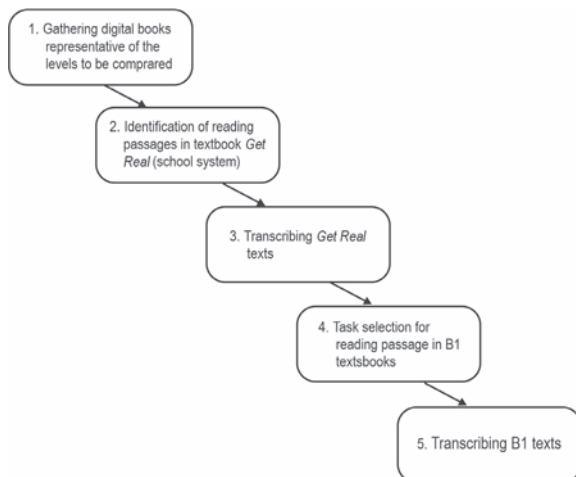
We started by examining the textbook *Get Real* as to identify all the reading sections included in it. A reading section was classified as one that was preceded by a pre-reading and followed by a post-reading. Then, each one of the reading passages was typed onto a separate document.

In the case of the selection of the B1 texts, the process was less straightforward due to the reading exam having six parts. To decide which task out of the six, we followed two principles: (1) That the text was completely presented in the activity (not a gapped text) and (2) that the texts were like the ones identified in the EFL textbook. The narrowing down process, consequently, had the following steps.



1. Part 4, Part 5, and Part 6 were ruled out because they presented the reader with gapped texts. Therefore, to assess text readability, one would have to do the exercise, complete them, and then conduct the analysis. Parts 5 and 6, in fact, go beyond the scope of reading comprehension and tap on grammatical competence. These two tasks used to be included as part of the Use of English exam in previous equivalent versions of this exam for this reason.
2. Part 1 and Part 2 presented the reader with very short texts, such as short descriptions and warning signs. Therefore, they were also ruled out.
3. Part 3 resulted in being the most logical option because it presented the reader with (a) a complete text, (b) it complied with the requirement of visual similarity. Additionally, the task itself was appropriate in terms of what measured with what the school curriculum objectives aim at (e.g., understand specific details, understand global meaning, identify author's attitudes and opinions, and infer information).

Specifically, nine texts corresponding to Part 3 of different exams were typed onto a separate document for analysis. The number was lower than the one extracted from the *Get Real* text because of the difficulty accessing more booklets of the latest versions of this exam, but it presents no reliability issue for the analysis because of all the measures Cambridge takes to control the equivalence in terms of complexity of the texts used in their official booklets as well as exams. Suffice to say, the size of the corpus is in line with the ones compiled in previous studies (Carcamo, 2020; Gupta, 2013; Leander, 2016; Tabatabaei & Bagheri, 2013). Figure 1 displays visually the procedure followed.



**Figure 1.** Procedure for the selection of texts

For the data analysis of the readability of the text, Coh-Metrix was used. This is an online tool which has been designed to gauge the difficulty level of written texts in an objective manner (McNamara et al., 2014). We used three indices to measure the text readability of each text. These indices were Flesch Reading Ease (FRE), Flesch-Kincaid Grade Level (FKGL), and RDL2. The first two are traditional readability formulas whereas the latter one is a readability index designed to gauge the difficulty a text can have for second-language texts.

## Results

We started by conducting descriptive statistics over two general indicators of readability: number of words and number of sentences.

**Table 1.** Descriptive statistics number of word number and sentence number

	Grade	N	Mean	Standard Deviation	Standard Error Mean
Number of sentences	ChilTbook	17	38,6471	16,23246	3,93695
	B1Tbook	9	24,6667	4,38748	1,46249
Number of words	ChilTbook	17	523,5882	117,48248	28,49369
	B1Tbook	9	385,1111	15,88588	5,29529

Table 1 displays information about the mean in terms of number of words and sentences for the Chilean EFL textbook (ChilTbook) and the texts from the B1 Preliminary (B1Tbook). It is immediately noticeable that the average length of the texts in the Chilean textbook exceed the length of the average of those included in the B1 Preliminary. To ensure that this difference was statistically significant, we proceeded to check the normality assumption using the Shapiro-Wilk test. After confirming the assumption was not violated, we conducted an Independent Samples T-Test.

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As it can be observed in Table 2, there is a statistically significant difference in both initial indicators: number of words ( $p=.008$ ) and number of sentences ( $p=.002$ ). Now that we had an initial understanding of overall difference between the selected texts, we proceeded to examine readability indices. We conducted descriptive statistics to examine the overall mean in terms of text difficulty for each group of texts: the ones in the Chilean textbook *Get Real* and the ones in the *B1 Preliminary* booklets.

**Table 2.** Independent Samples T-Test for word number and sentence number

	F	Sig.	t	df	Sig. (2-tailed)	Mean Difference	Standard Error Difference	95% Confidence Interval of the Difference	
								Lower	Upper
Number of sentences	8,468	,008	2,513	24	,019	13,98039	5,56250	2,49995	25,46083
			3,329	19,960	,003	13,98039	4,19982	5,21861	22,74217
Number of words	12,801	,002	3,486	24	,002	138,47712	39,72323	56,49240	220,46185
			4,778	17,084	,000	138,47712	28,98155	77,35416	199,60009

**Table 3.** Descriptive statistics of readability scores

	Grade	N	Mean	Standard Deviation	Standard Error Mean
FleschRE	ChilTbook	17	66,1917	10,93578	2,65232
	B1Tbook	9	75,0662	6,90661	2,30220
FleshKin	ChilTbook	17	7,6599	1,93003	,46810
	B1Tbook	9	6,7647	1,46995	,48998
RDL2	ChilTbook	17	17,2481	7,04688	1,70912
	B1Tbook	9	20,1014	2,45363	,81788

At first glance, it can be noticed that there are different means for each of the three indices. Whereas the Flesch Reading Ease and the RDL2 index show a higher score for B1 texts, the Flesch-Kincaid Grade Level Index shows the opposite. This is because whereas in the case of the Flesch-Kincaid index the difficulty of the text increases with the scores, the other two indices work on an opposite direction, thus, texts are more difficult to read when their scores are lower. Consequently, it can be asserted that all three scores show the same tendency that is that the EFL Chilean textbook texts have a higher degree of difficulty than the texts representative of the B1 Preliminary exam.

Before conducting inferential statistics tests, we checked the normality assumption with the Shapiro-Wilk test.

**Table 4.** Normality test

	Shapiro-Wilk		
	Statistic	df	Sig.
FleschRE	,956	26	,312
FleshKin	,954	26	,290
RDL2	,968	26	,575

Table 4 shows that all three readability mean scores complied with the normality assumption. We proceeded to conduct three Independent-Samples T-Test to check if there was a statistically significant difference when looking at the three readability formula indices.

Table 5. Independent-Samples T-tests

		Levene's Test for Equality of Variances		t-test for Equality of Means						
		F	Sig.	t	df	Sig. (2-tailed)	Mean Difference	Standard Error Difference	95% Confidence Interval of the Difference	
									Lower	Upper
FleschRE	Equal variances assumed	2,170	,154	-2,201	24	,038	-8,87452	4,03119	-17,19448	-5,54555
	Equal variances not assumed			-2,527	23,038	,019	-8,87452	3,51211	-16,13921	-1,60982
FleshKin	Equal variances assumed	1,112	,302	1,213	24	,237	,89522	,73784	-,62760	2,41804
	Equal variances not assumed			1,321	20,661	,201	,89522	,67765	-,51543	2,30587
RDL2	Equal variances assumed	4,644	,041	-1,168	24	,254	-2,85339	2,44271	-7,89488	2,18811
	Equal variances not assumed			-1,506	21,873	,146	-2,85339	1,89473	-6,78414	1,07737

When examining the results shown in Table 5, it is noticeable that not all three readability formulas reveal the same. Whereas the Flesch Reading Ease and the Flesch-Kincaid formulas show no statistically significant difference, the RDL2 shows the opposite ( $p < .05$ ). In other words, although traditional formulas state that there is no statistically significant difference between the readability level of the texts in both groups, the RDL2 index, which is specifically designed for ESL learners, shows that the texts in the textbook *Get Real* are indeed more difficult than those in the B1 Preliminary booklets. To estimate the effect size, we made use of the software *G\*Power 3.1.9.4* (Faul et al., 2009). The results showed a medium effect size ( $d = 0.58$ ) for the difference perceived with the RDL2 index.

## Discussion

School textbooks are one of the most important pedagogical resources in the ESL classroom (Hutchinson & Torres, 1994); however, if the text is not understandable and appropriate for the students, language acquisition might not occur (Hakim et al., 2021). This is one of the reasons why there has been a constant and growing interest in finding suitable texts for learners (Pitler & Nenkova, 2008). In this context, the present study has brought about two key findings that will be discussed: the readability of the Chilean EFL textbook *Get Real* and the relevance of using specific ESL readability indices.

The findings of this study indicate that the readability of the texts used in the Chilean EFL textbooks is of a higher difficulty than the text difficulty of the standard the government expects students to achieve at the end of high school. The questionable level of difficulty of Chilean EFL textbooks has been mentioned in previous studies with the book that was previously used during high school for English lessons in Chile (Carcamo, 2020).

Additionally, these findings support other studies that have questioned from other avenues the appropriacy of Chilean EFL textbooks provided by the Ministry of Education. For example, Lizasoain and Vargas Mutizabal (2023) conducted a survey with 484 EFL teachers in Chile to gather information about the perception of the EFL textbook they were using. Their results showed that EFL teachers using the Ministry of Education books indicated that these books were not appropriate for the public classroom diversity and that they did not match with the national curriculum. In contrast, EFL teachers who had the freedom to choose textbooks based on their needs and school educational projects felt more satisfied. The inappropriacy of the EFL textbook was also reported for the previous edition of this material. Díaz Larenas et al. (2015) reported that EFL teachers perceived the EFL textbook provided by the Ministry of Education as inappropriate because of being at a higher level of difficulty in terms of the students' background knowledge, thus, the authors suggest it is of the utmost important for teachers to be critical with the textbook and adapt it

in a way in which it can be productively used with the students as well as complement it with material that is appropriate for the students' level.

Comparing these findings to similar international studies, some noticeable similarities and differences emerge. For example, Owu-Ewie (2014) studied the readability of the English textbooks used in Junior High School in Ghana. The findings of this study revealed that alike what has happened in the present study, the texts used in Ghanaian textbooks were deemed to be too difficult considering the age of the students. Unfortunately, even though there is a clear similarity in the findings, these results are not completely comparable to those of the present study. The reason for this is that the researcher used traditional readability formulas only and no specific ESL ones because the researcher estimated that the policies implemented in Ghana gave the students a status closer to that of a native speaker than that of a second language learner.

In Indonesia, Hakim et al. (2021) examined the readability level of this country's English textbook using Coh-Metrix. In addition, the students' perception about the texts was measured with a questionnaire. The findings of this study showed that the texts were somewhat appropriate because they were a tad below the students' level. Thus, the authors stated that they had potential for the development of their linguistic competence. These positive results are in line with other studies done in Indonesia (Hakim et al., 2021; Handayani et al., 2020; Rahmi et al., 2022).

The findings of the present study are more in line with the results obtained in Ghana. The texts in *Get Real* might make students face linguistic challenges that exceed their proficiency level. Thus, leaving teachers with the responsibility to detect this issue beforehand and prepare accordingly. If text difficulty is perceived even unconsciously by students, it may easily demotivate them and generate a negative perception towards foreign language learning (Rahimi & Hassani, 2011).

The biggest concern when examining the results has to do with students' previously proved level of English competence in the types of schools in which this textbook is distributed. The Chilean Quality Education Agency has consistently stated, based on standardized exams, that students in subsidized and public schools in their majority do not achieve the B1 proficiency level at the end of high school (Quality Education Agency, 2018). Therefore, it is evident that these students struggle with texts that are above the standard they try to achieve during their last years of high school.

Our second finding is the evidence that the ESL readability formula does not necessarily deliver a readability level equivalent to those traditional formulas would give. In all studies reviewed in this discussion (Handayani et al., 2020; Owu-Ewie, 2014; Rahmi et al., 2022) only traditional formulas have been used, or traditional formulas are accompanied by a specific ESL readability formula such as the RDL2. The fact that researchers still do not dare to use

specific ESL readability formulas should start being a concern considering ESL formulas have been validated and used empirically. In fact, the present study has also made use of traditional formulas which is also an example of the research community's anxiety toward using indices specifically designed for their field.

## Conclusion

Text readability is a variable that has been of interest for researchers in our field for almost a hundred years. Even though it has been understood in different ways (Crossley et al., 2017; McNamara et al., 2014) and challenged in different manners (Bailin & Grafstein, 2016), when it comes to considering practicality is still one of the strongest predictors of the difficulties particular groups of readers can encounter when trying to understand a text. The present study made use of readability indices to evaluate the appropriacy of the new EFL textbook that the Chilean Ministry of Education is providing teachers and students of public and subsidized schools with. Specifically, we compared the readability levels of the texts in the school textbook *Get Real* with those of *B1 Preliminary* booklets. The choice for the latter as a standard was sustained in the fact that the Ministry of Education expects students to achieve a B1 proficiency level of English at the end of high school.

The findings of the study revealed that based on traditional L1 readability indices the texts of the Chilean school textbook had the same text difficulty than those used in the B1 Preliminary. However, when examining the RDL2 readability index, we found that there was a statistically significant difference which showed that the texts in the Chilean school textbook were more difficult. Therefore, this study has provided evidence that traditional readability formulas do not necessarily replace ESL specific readability formulas since when used in empirical research they may bestow contradictory results. The literature indicates that specific ESL/EFL readability indices are more appropriate to be used when analyzing readability in such contexts. Therefore, researchers should rely on indices such as the RDL2 when doing this type of research endeavor even when it might be harder to have access to them when compared to traditional ones.

The present study has implications for both teachers and government. In first place, EFL school teachers should be alert that the reading material they are working with in the text *Get Real* exceeds the text difficulty for which they are preparing their students. This challenge might be addressed by teachers in different ways. For example, teachers could emphasize the pre-reading section assigning to it a decent amount of time for students to process the information (Zarfsaz & Yeganehpour, 2021). Also, teachers could teach pertinent reading strategies that help students deal with the texts successfully without getting frustrated along the way (Uribe-Enciso, 2015).



Additionally, combining this finding with those of previous (Carcamo, 2018, 2020; Díaz Larenas et al., 2015; Lizasoain & Vargas Mutizabal, 2023), three suggestions can be made to the Ministry of Education, so that it improves the process of text design and licensing for the Chilean classroom: (1) Confirm the suitability of the textbook with the learning objectives provided by the Ministry of Education in their school programs, (2) corroborate that the text readability is in line with the international standards the students are expected to achieve, and (3) make sure tasks are at the appropriate cognitive level of difficulty. Following these three guidelines could help facilitate the process that it is expected from teachers of adapting the textbook to their classrooms and thus improve EFL teachers' perceptions of this material.

A potential limitation of the present study is that we did not use texts from all tasks used in the B1 preliminary exam. Although the decision for this is sound and well supported by the fact that the texts in the other tasks were either too short or incomplete, it is still valid to mention that these texts have their own level of readability which might be more in line with the one in the texts in the EFL Chilean textbook. It might be of interest to revisit these other texts as well as the nature of the tasks in a future study to gauge how these factors might impact the level of difficulty of the activity of reading itself. Furthermore, a second limitation was the discrepancy we faced in the number of texts we had to compare due to the lack of access to new editions of the *B1 Preliminary* textbook. Consequently, we recommend conducting similar studies with larger corpora to confirm these findings.

Future studies might investigate two issues that warrant further attention. First, researchers should conduct experimental studies with ESL/EFL students in which they can be exposed to texts of different readability levels. Understanding how readability impacts comprehension levels is of paramount interest as to make it an inherent part of the process of text evaluation when preparing EFL/ESL school textbooks. Additionally, the findings of readability studies of this type might be nurtured with complementary qualitative studies with teachers who use these textbooks as to deepen the comprehension of how they are eventually used and supplemented in the classroom.

## References

- Bailin, A., & Grafstein, A. (2016). *Readability: Text and context*. Palgrave Macmillan.
- Bernstein, B. (1990). *The structuring of pedagogic discourse: Class, codes & control (Vol. IV)*. Routledge.
- Bormuth, J. R. (1971). *Development of standards of readability: Toward a rational criterion of passage performance*. U. S. Department of Health, Education and Welfare (ERICDoc. No. ED O54 233).

- British Council. (2015). *English in Chile. An examination of policy, perceptions and influencing factors*. British Council, Santiago. <http://www.teachingenglish.org.uk/sites/teacheng/files/English%20in%20Chile.pdf>
- Brown, J. D. (1998). An EFL readability index. *JALT Journal*, 20, 7–36.
- Brown, J. D., Janssen, G., Trace, J., & Kozhevnikova, L. (2012). A preliminary study of cloze procedure as a tool for estimating English readability for Russian students. *Second Language Studies*, 31(1), 1–22.
- Cambridge University Press. (2019). *B1 Preliminary 1 with answers*. Cambridge University Press.
- Cambridge University Press. (2020). *B1 Preliminary 2 with answers*. Cambridge University Press.
- Campos, D., Contreras, P., Riffo, B., Véliz, M., & Reyes, A. (2014). Complejidad textual, lecturabilidad y rendimiento lector en una prueba de comprensión en escolares y adolescentes. *Universitas Psychologica*, 13(3), 15–36.
- Carcamo, B. (2018). Types of listening comprehension promoted in the Chilean EFL textbook *Global English*. *Colombian Applied Linguistics Journal*, 20(1), 49–61.
- Carcamo, B. (2020). Readability and types of questions in Chilean EFL high school textbooks. *TESOL Journal*, 11(2), e498. <https://doi.org/10.1002/tesj.498>
- Carrasco-Bahamonde, J., & Carrasco-Bahamonde, D. (2018). Mapping of the educational reform in Chile: Market, competence and school improvement. *Revista Brasileira de Educação*, 23, 1–19. <https://doi.org/10.1590/s1413-24782018230080>
- Cheng, Y-S., & Chang, S-C. (2022). Do senior high school English textbooks sufficiently prepare students for the high-stakes college entrance examinations? A corpus-based analysis of text difficulty. *Journal of Textbook Research*, 15(1), 43–80.
- Crossley, S. A., Greenfield, J., & McNamara, D. S. (2008). Assessing text readability using cognitively based indices. *TESOL Quarterly*, 42, 475–493.
- Crossley, S., Allen, D., & McNamara, D. (2011). Text readability and intuitive simplification: A comparison of readability formulas. *Reading in a Foreign Language*, 23(1), 84–101.
- Crossley, S., Skalicky, S., Dascalu, M., McNamara, D., & Kyle, K. (2017). Predicting text comprehension, processing, and familiarity in adult readers: new approaches to readability formulas. *Discourse Processes*, 5(6), 340–359.
- Dale, E., & Chall, J. (1948). A formula for predicting readability: Instructions. *Educational Research Bulletin*, 27(2), 37–54.
- Díaz Larenas, C., Alarcón Hernández, P., & Ortiz Navarrete, M. (2015). A case study on EFL teachers' beliefs about the teaching and learning of English in public education. *Porta Linguarum*, 23, 171–186.
- Faul, F., Erdfelder, E., Buchner, A., & Lang, A.-G. (2009). Statistical power analyses using G\*Power 3.1: Tests for correlation and regression analyses. *Behavior Research Methods*, 41, 1149–1160.
- Flesch, R. (1943). *Marks of readable style: A study in adult education*. Teachers College Press.

- Flesch, R. (1948). A new readability yardstick. *Journal of Applied Psychology*, 32, 221–233. <https://doi.org/10.1037/h0057532>
- Glas, K. (2008). El inglés abre puertas... ¿a qué? Análisis del discurso sobre la enseñanza del inglés en Chile, 2003-2006. *Revista Educación y Pedagogía*, 20(51), 111-122.
- Gobierno de Chile. (2014). Estrategia nacional de inglés/National English strategy 2014-2030. <https://www.economia.gob.cl/wp-content/uploads/2014/03/140307-Documento-Estrategia-Nacional-de-Ingles-C3%A9s-2014-2030.pdf>
- Greenfield, G. (1999). *Classic readability formulas in an EFL context: Are they valid for Japanese speakers?* [Unpublished doctoral dissertation]. Temple University, Philadelphia, PA, United States. (University Microfilms No. 99–38670).
- Greenfield, J. (2004). Readability formulas for EFL. *JALT Journal*, 26, 5–24.
- Gupta, R. (2013). The readability of English language texts in the primary grades. *Language in India*, 13, 534–544.
- Hakim, A., Setyaningsih, E., & Cahyaningrum, D. (2021). Examining the readability level of reading texts in English textbook for Indonesian Senior high school. *Journal of English Studies*, 6(1), 18-35.
- Hamsik, M. J. (1984). *Reading, readability, and the ESL reader* [Unpublished doctoral dissertation]. University of South Florida.
- Handayani, R., Furaidah, F., Ivone, F. (2020). The readability level of reading texts in Erlangga Straight Point series: English for eleventh grade students. *Journal Pendidikan*, 5(11), 1579-1587.
- Hedgcock, J., & Ferris, D. (2009). *Teaching readers of English: Students, texts, and contexts*. Routledge.
- Hutchinson, T., & Torres, E. (1994). The textbook as agent of change. *ELT Journal*, 48(4), 315–328.
- Ibáñez, R., Moncada, F., & Carcamo, B. (2019). Coherence relations in primary school textbooks: Variation across school subjects. *Discourse Processes*, 56(8), 764-785.
- Kincaid, J., Fishburne, R. P., Rogers, R. L., & Chissom, B. S. (1975). Derivation of new readability formulas (Automated Readability Index, fog count and Flesch Reading Ease Formula) for Navy enlisted personnel. *Institute for Simulation and Training*, 56.
- Leander, M. (2016). *An analysis of readability of standard measurements in English textbooks by Swedish publishers from the 90s to 2016*. <http://www.divaportal.org/smash/get/diva2:1066146/FULLTEXT01.pdf>
- Lin, C. (2010). Evaluating readability of a university Freshman EFL reader. In Y.-J. Chen, S.-J. Huang, H.-C. Liao, & S. Lin (Eds.), *Studies in English for professional communications and applications* (pp. 75–88). Crane.
- Lizasoain, A., & Vargas Mutizabal, J. (2023). Percepciones de los docentes de inglés chilenos acerca de los libros de texto utilizados en establecimientos escolares públicos y privados en Chile. *Calidad en la Educación*, 58, 35-68.
- Maarof, N. (2016). *Assessing second language reading*. Partridge Publishing.

- Martin, J., & Rose, D. (2008). *Genre relations: Mapping culture*. Equinox.
- McNamara, D., Graesser, A., McCarthy, P., & Cai, Z. (2014). *Automated evaluation of text and discourse with Cob-Matrix*. Cambridge University Press.
- Mieres-Brevis, M. (2020). La dinámica de la desigualdad en Chile: Una mirada regional. *Revista de Análisis Económico*, 35(2), 91-133.
- Nicholls, J. (2003). Methods in school textbook research. *International Journal of Historical Learning, Teaching and Research*, 3(2), 11–26. <https://doi.org/10.2304/rcie.2006.1.1.5>
- Odo, D. (2018). A comparison of readability and understandability in second language acquisition textbooks for pre-service EFL teachers. *The Journal of Asia TEFL*, 15(3), 750-765.
- OECD. (2021). *Chile: focus on reducing inequality to strengthen social and economic recovery from COVID-19*. <https://www.oecd.org/newsroom/chile-focus-on-reducing-inequality-to-strengthen-social-and-economic-recovery-from-covid-19.htm>
- Owu-Ewie, C. (2014). Readability of comprehension passages in Junior High School (JHS) English textbooks in Ghana. *Ghana Journal of Linguistics*, 3(2), 35–68. <https://doi.org/10.4314/gjl.v3i2.21>
- Oxford, R. (2017). *Teaching and researching language learning strategies: Self-regulation in context* (2<sup>nd</sup> ed). Routledge.
- Pitler, E., & Nenkova, A. (2008). Revisiting readability: A unified framework for predicting text quality. In *Proceedings of the 2008 conference on empirical methods in natural language processing* (pp. 186-195). Honolulu Hawaii.
- Quality Education Agency. (2012). *Resultados SIMCE III Medio 2012*. [https://datos.gob.cl/dataset/resultados\\_de\\_simce\\_2012-prueba\\_ingles\\_iii\\_medio](https://datos.gob.cl/dataset/resultados_de_simce_2012-prueba_ingles_iii_medio)
- Quality Education Agency. (2015). *Síntesis de resultados de aprendizaje*. [http://archivos.agenciaeducacion.cl/resultados-2014/Sintesis\\_Resultados\\_IIIM\\_2014.pdf](http://archivos.agenciaeducacion.cl/resultados-2014/Sintesis_Resultados_IIIM_2014.pdf)
- Quality Education Agency. (2018). *Informe de Resultados Estudio Nacional de Inglés III medio 2017*. [https://archivos.agenciaeducacion.cl/Informe\\_Estudio\\_Nacional\\_Ingles\\_III.pdf](https://archivos.agenciaeducacion.cl/Informe_Estudio_Nacional_Ingles_III.pdf)
- Rahimi, M., & Hassani, M. (2011). Attitude towards EFL textbooks as a predictor of attitude towards learning English as a foreign language. *Procedia—Social and Behavioral Sciences*, 31, 66–72. <https://doi.org/10.1016/j.sbspro.2011.12.018>
- Rahmi, U., Riza, A., Yelliza, Y. (2022). Classifying the readability level of reading text on English textbook entitled “Pathway to English” for senior high school eleventh grade. *Tell-us Journal*, 8(1), 1-10.
- Rose, D. (2014). Analysing pedagogic discourse: An approach from genre and register. *Functional Linguistics*, 1(11), 1-32.
- Tabatabaei, E., & Bagheri, M. (2013). Readability of reading comprehension texts in Iranian senior high schools regarding students’ background knowledge and interest. *Journal of Language Teaching and Research*, 4, 1028–1035.

- Toledo-Sandoval, F., & González Hermosilla, A. (2016). El aprendizaje del idioma inglés y desigualdad: formación inicial docente y propuestas curriculares para primero básico. *Revista Némesis*, 13, 6-22.
- Uribe-Enciso, O. (2015). Improving EFL students' performance in reading comprehension through explicit instruction in strategies. *Rastros Rostros*, 17(31), 37-52. <http://dx.doi.org/10.16925/ra.v17i31.1271>
- Wolfe, C., Eylem, A., Dandignac, M., Lowe, S., Weber, M., Scudiere, L., & Reyna, V. (2022). Understanding the landscape of web-based medical misinformation about vaccination. *Behavior Research Methods*. <http://dx.doi.org/10.3758/s13428-022-01840-5>
- Yilorm, Y. (2016). Proceso de enseñanza aprendizaje de la lengua inglesa en escuelas públicas chilenas. *Estudios Pedagógicos*, 42. <http://dx.doi.org/10.4067/S0718-07052016000300009>
- Zamanian, M., & Heydari, M. (2012). Readability of texts: State of the art. *Theory and Practice in Language Studies*, 2(1), 43-53. <http://dx.doi.org/10.4304/tpls.2.1.43-53>
- Zarfsaz, E., & Yeganehpour, P. (2021). Grammatical morphemes, conceptual structures and semantic representation. *Journal of Language and Linguistic Studies*, 17(Special Issue 2), 702-716.