Reading Level Placement and Assessment for ESL/EFL Learners: The Reading Level Measurement Method

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Abstract
For many ESL/EFL learners, reading is their main learning goal and may be the most important of the four language skills in the second language. For many ESL/EFL teachers, the issue of promoting proficient reading is important, and they look for additional or alternative methods to achieve this goal. However, when discussing reading as a primary goal of a curriculum, assessment becomes a critical element necessary for successful instruction. This article suggests that extensive reading (ER) should be used to achieve this goal and discusses a new method of reading assessment, the Reading Level Measurement Method (RLMM), as a practical means of assessing learners reading levels and accurately placing learners at their optimal reading levels to maximize their learning potential. Further, this article describes the step-by-step process of creating the RLMM, how to implement it in the classroom, and how to use it as a practical and economical assessment and placement tool. It also describes a successful quantitative study which adopted the RLMM and supports its effectiveness.

Key Words: reading level, assessment, placement, extensive reading

Introduction
For many English as a second language (ESL) and English as a foreign language (EFL) students, reading is their main learning goal (Carrell, 1993; Day & Bamford, 1998; Grabe, 2009; Mermelstein, 2013; Nunan, 1999; Waring, 2006; Tamrackitkun, 2010), and for most of these students, reading will be the most important of the four language skills in the second language. Therefore, it is no surprise that in many countries, reading has become one of the most emphasized skills in the ESL/EFL classroom (Day & Bamford, 1998; Grabe, 2009; Nation, 2001; Tamrackitkun, 2010; Tanaka, & Stapleton, 2007) in spite of the current emphasis around the world on communicative language teaching (CLT). When discussing reading as a primary goal of a curriculum, assessment becomes a critical element necessary for successful instruction. Postlethwaite and Ross (1992) found that regular assessment was a key factor associated with students’ success in learning to read. Assessment can help teachers determine if the instruction provided is resulting in adequate student progress. It can assist in identifying students who can benefit from a more accelerated instructional program and those who need more intensive instructional
support. Essentially, assessment allows teachers to identify where their students are academically, and where they need to go. For example, if a reading assessment determined that a class of students was at a lower reading level, the teacher may decide to change the course textbooks to use a graded readers or simplified texts instead of an original novel. Furthermore, if it was determined that the same group of students’ reading level was low, the teacher may also decide to alter the writing content of the course and provide more scaffolding for individual students if necessary.

For many ESL/EFL teachers and administrators, the issue of promoting proficient reading is important. In order to do this, some teachers are looking for additional or alternative methods to achieve this goal. In the field of teaching ESL/EFL, there has been a trend for teachers to rely on skill-building textbooks that attempt to develop reading strategies for the learner to comprehend different genres of texts. These strategies are usually designed for the purposes of teaching the reader how to find some sort of general or specific information in the text.

Today, however, there is an enormous amount of research spanning decades promoting the effectiveness of extensive reading (ER) (i.e., Day & Bamford, 1998; Lee & Hsu, 2009; Mermelstein, 2013; Nuttall, 1982; Sheu, 2003; Waring, 2006; Tamrackitkun, 2010; Yamashita, 2013). In fact, Nuttall (1982) stated that “an extensive reading programme...is the single most effective way of improving both vocabulary and reading skills in general” (p. 65). This belief has also been echoed throughout more recent research (e.g. Cho, 2007; Day & Bamford, 2002; Day, & Hitosugi, 2004; Pigada & Schitt, 2006). For the purpose of this article, ER is defined as reading as much as possible within the learner’s peak acquisition zone, for the purpose of gaining reading experience and general language skills and obtaining pleasure from the texts.

Statement of the Problem

In order to better build up ESL/EFL students’ English reading abilities, ESL/EFL teachers need to develop English teaching programs that apply teaching methodologies and reading materials that are efficient, effective, and matched with the students’ abilities and interests. Although many current educational systems throughout the world are achieving some level of success, they may still be lacking appropriate and/or alternative models for teaching vocabulary and reading (Mermelstein, 2013), such as student-centered learning activities like ER.

Therefore, the problem is not necessarily the lack of effort teachers are putting into creating a reading curriculum for their students, but it may be a lack of knowledge regarding how to properly assess and place learners within such a program. To further complicate the situation, most ESL/EFL courses are comprised of students with mixed abilities, which makes it even more difficult for teachers to teach reading through traditional methods, like the Grammar-Translation method or direct teaching of vocabulary.

Today there is a wide variety of reading assessment tests and assessment formulas on the market (i.e. the Flesch-Kincaid Grade Level Formula; the Fry Readability Graph), but most of these are norm-referenced tests intended for mainstream students and not for
ESL/EFL learners. Further, they are intended to compare students with what is considered the normal reading level for each grade in school, which is also not compatible with ESL/EFL students because their age does not necessarily reflect their grade level in terms of English language ability.

ESL/EFL students are uniquely different from mainstream students whose primary language (L1) is English because they generally do not have the background and cultural knowledge to perform as well on these types of reading assessments. For example, they may not know the meaning behind terms like traffic jam or sky scraper. They may also not possess the same linguistic knowledge of phonology, semantics, and syntax as mainstream students. ESL/EFL students may or may not have learned decoding skills, and students from different cultures may apply different strategies while reading, which may also be difficult to detect. In addition, there is the problem of lexical knowledge. ESL/EFL students may be able to sound out words in their minds or aloud, but this does not mean that these words make sense to them.

Therefore, in order to assist teachers in developing English reading programs that apply methodologies and reading materials that are efficient, effective, and appropriate to students’ abilities and interests, this article suggests the use of ER and offers a new and easy method of properly assessing learners and placing them within an ER program.

**Literature Review**

**ER Theories & Programs**

One of the major theories underlying the modern development of the ER approach in second and foreign language classrooms is Krashen’s (1985) Input Hypothesis, which is based on the distinction between acquisition and learning. Accordingly, the term *acquisition* is used to refer to an intuitive or subconscious process of constructing or “picking up” a language. The term *learning*, on the other hand, is used to refer to a conscious, active effort to understand information. Later, Krashen (1991) created a more specific part of the Input Hypothesis known as the Reading Hypothesis, which states that comprehensible input in the form of reading can also stimulate language acquisition. Since reading is the interaction of new information with old knowledge, learners who understand most of the text can infer the meaning of new words as they read and then test their hypothesis as they encounter these words repeatedly through reading.

One point that has not been challenged when discussing ER is that vocabulary control is necessary. However, there has been some debate among researchers regarding the amount of vocabulary knowledge that is necessary for a second language reader to accurately comprehend a text. In order to learn word meanings incidentally through reading, it is important for learners to encounter a suitable number of unfamiliar words in a text. According to Liu and Nation (1985), Laufer (1987), and Hirsh and Nation (1992), learners need to understand about 95% of the text in order to gain an adequate comprehension and to accurately guess unknown words from the context. Hill and Thomas (1988) suggest 90%, but the Extensive Reading Foundation (ERF) (2011) sets the percentage much higher at 98%. At 95% coverage means that there is approximately one unknown word in
every two lines of text, if each line of text contains about ten words. It is vital that learners know a sufficient amount of headwords and word families in order to understand 95% of the words in a text. According to Hirsh and Nation (1992), a word family is the base form of a word plus the inflected and derived forms created from affixes, which may include affixes like the third person –s, the superlative –est, -able, -ness, etc. A headword is a word in which a group of related words would appear with it in a dictionary. For example, if one looks up the word automobile in a dictionary, it might be accompanied with related words like auto, car, motorcar, vehicle, etc. Both Laufer (1997) and Nation (2001) suggest that a size of 3000 word families should cross the threshold and be enough for successful second language reading. Liu and Nation (1985) demonstrated that words in a low-density text, where there was only one unknown word out of twenty five words, were easier to guess than words in a high-density text, where there is one unknown word out of ten words. According to the ERF (2009), reading is at an “instructional” level when the students know between 90% and 98% of the words on a page. If the students know 98% or more of the words, then they are in the ER “sweet spot” and can read quickly or at a constant pace because there are not too many unknown words slowing them down. Further, at 98% it is most likely more enjoyable for the reader as well. Since vocabulary control has such a large impact and is so vital for reading comprehension and the acquisition of new vocabulary, proper assessment and placement into an ER program is paramount.

**Extensive Reading**

Extensive reading has been widely advocated for language learning throughout the world (e.g. Day and Bamford, 1998; McQuillan, 2006; Mermelstein, 2013). There are several differences between extensive reading and intensive reading. The first is the amount of reading materials that the learner is required to read. The second is the degree of intensity with which the materials are to be read. During intensive reading activities, learners are generally exposed to short texts which include specific lexical and/or syntactic aspects of the language to learned, and are usually followed by tasks to provide reading strategy practice. The goal of ER is different because ER attempts to immerse the learner in large quantities of comprehensible input without any specific linguistic task, except making meaning of the text. In other words, learners are generally not asked to do additional work related to their reading. Day and Bamford (1998) offered the following ten top principles of ER to help clarify the common characteristics of successful ER programs:

1) Students read as much as possible.

2) A variety of materials on a wide range of topics are available.

3) Students select what they want to read.

4) The purpose of reading is usually related to pleasure, information, and general understanding.

5) Reading is its own reward.

6) Reading materials are well within the linguistic competence of the students.

7) Reading is individual and silent.

8) Reading speed is usually faster rather than slower.

9) Teachers orient students to the goals of the program.
10) The teacher is a role model of a reader for students.

ER can make a positive contribution to the development of competence in a second language (Lee & Hsu, 2009; Mermelstein, 2013; Tamrackitkun, 2010; Tudor & Hafiz, 1989; Yamashita, 2013) by providing learners several encounters with unknown words. It expands the learners’ interaction with the language by exposing them to different words in different contexts so that learners can receive a more complete understanding of their meaning and use (Simensen, 1987). The pedagogical value attached to ER is based on the assumption that having students interact with large amounts of interesting, meaningful, and comprehensible language materials will produce positive effects on the learners’ abilities to use a second language.

Several influential second language studies involving ER have taken place over the past few decades and have demonstrated several distinct benefits that language learners can receive through ER. They can acquire more vocabulary knowledge, increase their reading speed, improve their writing abilities, create more positive attitudes towards reading and the target language, and develop their linguistic knowledge (Bell, 2001; Cho, 2007; Fernandez de Morgado, 2009; McQuillian, 2006; Mermelstein, 2013; Nation, 2008).

The RLMM

The Reading Level Measurement Method (RLMM) is an assessment tool created by teachers and designed to measure learners’ reading levels for the purposes of placement within a reading program or for measuring reading level progress over time. It was originally created by Aaron David Mermelstein over the course of several years out of the need to accurately assess and place mixed ability ESL/EFL students into reading programs and track their progress throughout the programs. The RLMM is specifically designed to work together with ER programs using graded reader books.

There has been one published study and several as-yet unpublished studies carried out using the RLMM. All of the studies used the RLMM for the participants’ placement in an ER program, but two of them specifically measured the reading level improvement of the participants over the length of the studies.

Mermelstein’s (2013) study was conducted in Taiwan, using 4th year EFL university students. It was a 12-week quantitative study involving 87 participants and its purpose was to examine the effects of ER on the reading levels of the students and to find an appropriate alternative to the traditional teaching methodologies being used in Taiwan. After the initial reading level placement, the students participated in a weekly in-class Sustained Silent Reading activity, supplemented by outside reading, using graded reader books. The overall framework of this study was based upon Day and Bamford’s (1998) top ten principles for conducting a successful extensive reading program, as listed above. First, a measure of the means and standard deviations of the results of the pre and post RLMMs were taken and then a categorical analysis was done on the reading level data using Chi-square. The results indicated that the treatment group posted significantly higher gains than the control group, with 1.01 levels gained vs. 0.46 levels gained respectively. The Chi-square analysis, using a two-way contingency table with
the two variables being the starting reading level and the ending reading level, found the variables to be significantly different with Pearson Chi-square \((2, N = 87) = 115.72, p = 0.000\), Cramer’s \(V = 0.52\).

**RLMM Design**

The design for creating the RLMM is simple and not very time consuming. From start to finish, it takes approximately one hour to create. Teachers would create six sections of the pre-reading level test (one for each reading level) to be used as assessment and/or placement and six sections of the post-test to be used for assessment and comparison. All of the RLMMs would be based on books from one specific graded reader series to measure improvement over the duration of the ER program. If desired, the teacher could also create a midterm RLMM to match needs or goals. The RLMM is based on the principle that the book publishing companies have already done the most difficult part for the teacher, that is, create graded reading levels based on the number of word families (e.g., help, helpless, helplessness, unhelpful, etc.) used in the text. Although it is not an exact science due to the actual number of words in any text and the fact that there is no way to specifically measure which words are being learned, in principle, each company has already calibrated each level of its book series with a range of word families. Therefore, moving from one level to the next represents an increase in the learners’ reading level and the number of word families learned by the reader. How many word families are learned at each level depends on which graded reader series teachers have chosen as well as which books learners have selected.

The rating scales for each series differs, so it would be inaccurate to measure reading level based on book level. Some series distinguish levels based on multiples of 100 word families and others are based on multiples of 200 or more word families. In other words, one publisher’s level 3 book does not directly correspond to another’s. Therefore, one of the most important factors for creating the RLMM and towards assessing student development is consistency within the texts, or only using one graded reader series.

Once the RLMMs have been completed, it is then important for the teacher to determine the percentage of unknown words that is acceptable at a students’ placement level. As previously mentioned, this is also one of the key factors involved in using this RLMM because the percentage of known or unknown words will have a huge impact on the learner and the learner outcomes. For example, if a learner was placed at a level where 90% of the words were known, this would mean that the learner would not know 1 in 10 words, and it would be difficult for the learner to understand what they were reading. They might need to frequently stop and use a dictionary and would mostly likely feel frustrated as well. Therefore, selecting the right placement level for learners is paramount to success. Diagram 1 explains the difference between a vicious circle of reading vs. a virtuous circle, which is directly related to the percentage of unknown words while reading.

1 For a more complete comparison of graded reader scales by various publishers, see the Extensive Reading Foundation’s (ERF) (2011) graded reader scale.
Diagram 1. Vicious vs. Virtuous reading cycle.

Source: ERF (2013)

Creating the RLMM

The first and most important material a teacher will need to get started is a set of graded reader books using only one specific publisher’s series. While it is not necessary to have a complete set of graded readers, it is important to have an adequate number of books available to students at all levels, so that they can freely select books of interest from a wide pool of genres. Most series have levels 1-6. However, some series have additional levels, like beginner, starter, or advanced. It may not be necessary to create a starter level section of the RLMM, as students who find level 1 too difficult would automatically be placed at the starter level.

The second step is to select three books from each level for a total of 18 books. When selecting books, teachers should be aware of the differences between British English and American English and select only books of a similar style throughout the levels. This will add to the validity and reliability of the RLMM. If students are unfamiliar with British English texts, it is recommended to only use American English texts in order to eliminate confusion due to differences in spelling.

The third step is to randomly select full pages from each text with approximately the same number of words on each page. How many RLMMs teachers want to make will determine how many pages are selected from each book at each level. For example, if teachers only want to give a pre-test and a post-test, then they would select two pages from each text at each level, one to be used for each test. Therefore, teachers would actually be selecting a total of 6 pages for each level. Using pages of the same texts for both the pre- and post-tests increases the
validity and reliability of the assessment. Before finalizing the page selections, teachers read each one and determine if it is of *standard level quality*, that is, if they have a variety of word families on each page. If possible, it would be ideal to have two other teachers analyze the test, so results can be normed. Having two or three teachers agree on the standard would increase the statistical inter-rater reliability of the RLMM; however, this step is not necessary.

The final step is to piece all of the pages of the test together. The test should start with the lowest level, and there should be three pages of text for each level for a total of 18 pages. Teachers should not worry if each page of the RLMM does not flow together as a single story. They should inform the students of this fact prior to the test. It is recommended to create a customized cover page for the RLMM where students can write their names and other important pieces of information. The final version of the RLMM is also versatile, in that it may be given as a hard copy, or it can be scanned and given online. Either way, it is recommended to scan the RLMM and keep an e-file which can be reused in the future, saving both time and money.

Another versatile aspect of this RLMM is that a teacher can adjust the RLMM to assess as many levels as they deem necessary, perhaps only creating an RLMM with three levels.

**Implementing the RLMM**

Implementing the RLMM is also simple for both teachers and students. First, the teacher distributes the tests to the students and indicates that they should not start reading until they are given the command. For each page of the test, the students are to read it and underline all of the unknown words to them. They should be instructed not to stop reading to use a dictionary. When they finish reading each page, they should count the number of unknown words, only counting each unknown word once, and then write the total amount on the top of the page and circle it.

RLMMs are designed to take approximately 50-60 minutes. However, each teacher may need to adjust the amount of time given for their own students, since they know their students’ abilities best. More advanced readers should be able to move through the lower sections of the test relatively easily and quickly. Lower level students will move more slowly through the RLMM and perhaps not finish. This is okay and all of the students should be informed at the beginning that some of them might not finish. Since lower level students would struggle through the higher levels and have a higher percentage of unknown words, it is not important whether they actually attempt to read levels out of their range.

**Assessing the RLMM Results**

As indicated earlier, assessing the RLMM for placement and comparison depends on what percentage of known or unknown words the teacher wants to set. In order to find the percentage of words, teachers should count the words on each page. For some teachers, an approximate count may be adequate. So, for example, if a page has approximately 200 words and the teacher would like to set the percentage of known words at 98%, then there would be approximately 4-5 unknown words underlined by the student on this page. Since the RLMM is designed to have three pages at each reading level, a simple average of the
three pages is all that is necessary to identify difficulty level. However, it is important to note that in this specific example, if a student had identified 5 unknown words on two of the pages at level 4 and 7-10 unknown words on the third page at the same level, this would indicate that the student be placed at level 3. It is far better to allow the student to read at a slightly lower reading level than a higher reading level because the goal is to keep the reader as close to the designated percentage of unknown words without going over. For example, if the goal is 98% of known words and a learner is placed at a reading level of 95% of known words, the text may be too difficult for the reader to read without being able to infer the meaning of unknown words. Therefore, the learner would most likely need to stop reading to use a dictionary, which defeats the purpose and benefits of ER.

Placement can also be somewhat fluid. After the initial placement, the students should be informed that they should let the teacher know if the reading books they select are too easy or too difficult. This can also be determined by the percentage of unknown words on randomly selected pages from the texts that the students are reading. However, it should be noted that not all of the books within the same reading level will be equally challenging for the individual student. One reason for this may be due to the familiarity of the topic or the familiarity with specific vocabulary, but also because while there is standardization within every graded reader book level, each book involves different vocabulary. Therefore, if a selected book at any level is found to be too difficult for the student, they should also be told that they can stop reading this book and select another book within the same level. If the second book is also too difficult for the student, or there are too many unknown words present, then the teacher can place the student at one level lower in the graded reader series and make a note of the change. However, this should be done as soon as possible to maximize learning and minimize student frustration.

For an overall assessment using the two RLMMs, all that is necessary is to do a comparison of the starting level with the ending level. Having a midterm RLMM is suggested since notifying the learners of any improvement may act as a motivating factor increasing their reading outside of class.

Discussion

While the RLMM does not measure any specific vocabulary gains, it does measure improvement or gains in reading levels. Therefore, a reasonable assumption would be that with an increase in one’s reading level comes an increase in one’s sight vocabulary and/or one’s acquisition of head words, and thus, an improvement of literacy. Further, with an increase in one’s reading level, one’s reading fluency should also be improved (Mermelstein, 2015).

While many of the benefits and advantages of using the RLMM have been discussed in the previous section, there may still be some teachers who may still ask why a classroom teacher would use the RLMM instead of using one of the tests provided by the publishers of graded reading books, for which there are several key reasons. First, publishers’ placement tests are meant to interact only with the specific books that they are trying to sell. They
are not compatible with any other graded reader series. However, the RLMM is fully compatible by design to work with any graded reader series. In addition, many of the publishers’ tests are only available for a fee or by purchasing one of their programs. This can actually be quite expensive and not in the budget of most classroom teachers. In comparison, the RLMM is practically free. In addition, most of the publishers’ reading comprehension tests are merely vocabulary tests (e.g. Oxford, Penguin, and MacMillan), in which the words may be completely random and taken out of context for the learner. Often they are multiple choice tests and/or use pictures for the test takers to guess their answers. Since the test taker can guess answers, the results of these tests are likely to be invalid and inaccurate, and since the publishers do not provide any statistical data regarding their tests, one can only conclude their tests have not been statistically measured for validity or reliability and there have not been any correlation studies done regarding test scores and placement.

Another point to consider when comparing publishers’ tests with the RLMM is time. Each time a teacher or student wants to use one of the publishers’ tests, it takes a considerable amount of time to navigate through the publishers’ website, and there is also no way of storing information without printing it out or copying it to an e-file. Therefore, collecting and storing students’ data can take a considerable amount of time and effort. In addition, having students take an online test is also dependent on many outside factors: the number of computers available, access to the internet, and the speed or quality of the internet service.

Conclusions

Considering the limitations of the classroom and the time available for teachers to directly interact with each student, ER may be able to help second language learners become more autonomous learners and improve their language skills in a multitude of ways, especially in ESL/EFL environments in which exposure to the target language may be limited. However, assessing learners’ reading levels and reading level placement poses very real problems for language teachers towards instructional planning and accountability. Misplacement generally means missed learning opportunities, which can have a catastrophic impact on learner motivation. This can lead the learner to a negative view of themselves and the language they are learning. It can also lead to misbehavior in the classroom.

Stakeholders in the educational system want to accurately measure learners and see improved results in reading. The RLMM offers a simple and real solution to a real problem since it can be designed and implemented in approximately two hours. Also, the flexibility of the RLMM allows it to be used and reused over and over again, either via a hard copy or an electronic version. It can be adapted to any graded reader book series and include any reading level. In addition, for administrators and researchers, it can also offer significant statistical data that is both valid and reliable.
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