

Addressing the importance of comprehension to reading: Learning lessons from Chang (2012)

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With data collected from pretests, posttests, and delayed tests from Taiwanese university students, Chang (2012) correctly identifies and attempts to address the lack of evidence of the efficacy of repeated readings (RR) and timed readings (TR) on improving students' reading rates. While the rare inclusion of a delayed posttest is a strength of the research methodology, Chang (2012) incorrectly argues that participants comprehended the TR instrument despite clear evidence to the contrary. This is critical, for with any study the validity of an author's inferences and conclusions is based on the appropriate use of measurement instruments. It is hoped that by highlighting limitations not stated in Chang (2012) and suggesting solutions, the reliability of future research might be improved, and in turn increase the strength of arguments for the inclusion of TR activities in the classroom.

Definition of TR Activities and Fluent Reading

The reading material of TR instruments "needs to be well within the learners' level of proficiency. There should be little or no unknown vocabulary or grammatical features in the speed-reading texts" (Nation, 2009, p. 2). One reason for this is that comprehension is central to reading, and this is evident in Grabe's definition of fluent reading referenced by Chang (2012): "the ability to read rapidly with ease and accuracy and to read with appropriate expression and phrasing. It involves a long incremental learning process and text comprehension is the expected outcome" (p. 57). Beglar, Hunt, and Kite (2012) emphasized the importance of providing evidence of comprehension when utilizing TR instruments in research.

Evidence of TR Comprehension is Necessary

In second language speaking research, it is posited that if second language English speakers are pushed to speak faster, accuracy and complexity are sacrificed (Skehan, 1998). As a result, definitions of speaking fluency incorporate speed, accuracy, and complexity. In a similar way, it may be expected that when students are reading under time constraints, they might sacrifice comprehension in order to complete a text more rapidly. Considering this, and the above paragraph, it is beneficial for researchers to provide evidence of comprehension of TR materials in order to argue that the construct of TR has been operationalized.

The Criteria of TR as Defined by the Instrument Used

Chang (2012) used activities taken from Book 1 and Book 2 of New Zealand Speed Readings for ESL Learners (Millett, 2005a, 2005b). Millett (2005a) stated that “[t]here should be no or very little unknown vocabulary”, “if a student is not at the 2,000 word vocabulary level do not use these readings”, and “if the class does not demonstrate a good receptive knowledge of the first 2,000 words of English, the readings are not appropriate” (pp. ii-iii). One of the passages used by Chang (2012) was from Book 2 (Millett, 2005b) which states “if a student does not have a good receptive knowledge of the 2000 word list and the Academic Word List (AWL), do not use these readings” (p. ii). Books 1 and 2 recommend that when using TR passages “the goal is the fastest time with about 70 percent accuracy” (Millett, 2005a, p. ii; Millett, 2005b, p. ii).

A Definition of Reading and Comprehension

While there are many definitions of reading, they often include the concept of understanding or comprehension, and so research would benefit from providing evidence of comprehension of instrument materials. Grabe (2009) stated:

Reading is centrally a *comprehending process*. We read to understand what the writer intended to convey in writing, though we also do more. One reason to point out that reading assumes comprehension is to be clear that all cognitive processing involved in reading is related to this fundamental goal. (pp. 14–15)

It is thus beneficial for researchers to define *comprehension* and provide evidence that participants have comprehended the reading instrument materials. Beglar et al. (2012) justified the figure of 70% or more correct answers on comprehension questions when testing for comprehension of TR material by referring to Nuttall’s (2005) recommendation of 70% as a figure for comprehension of reading material, and Anderson (2008) who referred to the same figure as “adequate comprehension” of reading material (p. 67).

Insufficient Lexical Knowledge to Conduct the Speed-Reading Activities Conducted

Chang (2012) stated that “on Vocabulary Levels Tests (VLT) the participants’ mean raw scores for the 1000, 2000 and 3000 levels were 28.31/30, 22.17/30, and 15.94/30 for the TR group, and 28.69/30, 21.96/30, 14.72/30 for the repeated reading group, respectively” (p. 64). Chang (2012) then stated that:

These results indicate that the participants should have been able to read texts written within the 2,000 high frequency words; other levels of vocabulary were not tested. Moreover, the participants were adults and they were thought to have some vocabulary knowledge from their own fields. (p. 64)

Three points at issue here are addressed below. First, the VLT scores provided do not justify the author’s claim of participants’ reading ability. Second, no evidence of the participants’ knowledge of the AWL was provided. Third, the comment regarding the participants being adults and so were thought to have some vocabulary knowledge from their own fields.

Insufficient VLT Scores

Mean raw VLT scores (details of standard deviations and internal consistency were not provided) do not justify the claim that “participants should have been able to read texts written within the 2,000 high frequency words” (Chang 2012, p. 64). Chang (2012) used a 1,000 word level VLT developed by Paul Nation to provide evidence of the participants’ knowledge of the first 1,000 most frequent words of English. Then, Schmitt, Schmitt, and Clapham’s (2001) VLT was used to provide evidence of the participants’ knowledge of the second and third 1,000 most frequent words of English, and scores of 22.17 and 21.96 out of 30 for the second 1,000 word band for the TR and RR group respectively were considered to indicate that the participants should have been able to read and comprehend texts written within the 2,000 highest frequency words. However, Schmitt et al. (2001) stated the criterion for mastery of a level is set at 26 out of 30. Nation (n.d.) stated that scores of 21 and 24 out of 30 are not evidence of sufficient knowledge at a given level of Schmitt et al.’s (2001) VLT, and recommends a level of 27 out of 30 when using the test to diagnose from what level vocabulary learning should be conducted. It should be remembered that it is recommended that no or very few unknown words are present when conducting TRs, and the necessary knowledge of the second 1,000 words of English before appropriately conducting TRs at the 2,000 word level would be greater than that required before instructors might recommend students start learning vocabulary at the third 1,000 word level. Further, when using timed reading passages written at the 2,000 word level it is advisable for participants to have a near perfect score on the second 1,000 level of the VLT and around 50% at the third 1,000 level (P. Nation, personal communication, November 20, 2013). A score of 15 out of 30 indicates 50% knowledge of words at that level (Nation, n.d.). If Nation’s logic were applied to the Chang (2012) participants, it would suggest that the participants have 73% knowledge of the second 1000 words of English, and far below the 98% knowledge of the words within a text recommended for reading comprehension by Hu and Nation (2000).

Additional evidence that the participants lacked the necessary lexical knowledge to comprehend TR passages written at the second 1,000 word level, and second 1,000 word level and AWL, comes from contents of Schmitt et al.’s (2001) VLT. The 2,000 word level section of their VLT sampled words from the first 1,000 and second 1,000 word level, 28 words from the first 1000 frequency level and 32 from the second 1000 words level. Thus, it might be argued that the scores of 22.17 and 21.96 out of 30 of the first and second 1,000-word level, and not the second 1,000-word level alone, are far from evidence that the students have sufficient knowledge of the second 1,000-word level for appropriate use of the TR passages used.

No Evidence of Knowledge of the AWL

Chang (2012) did not provide any evidence that the participants had any knowledge of the AWL or sufficient knowledge of the AWL to conduct the TR with materials written with the AWL, as stated by Millett (2005b) as necessary for use of the readings. Without such evidence, it is not certain that the participants were able to comprehend materials written using the AWL.

Unsupported Assumptions

Chang (2012) stated “participants were adults and they were thought to have some vocabulary

knowledge from their own fields” (p. 64). Had vocabulary been acquired in any context, it would have been measurable with the VLTs used by Chang. Any English vocabulary that cannot be measured on the VLT will be of little use when reading passages are written strictly within the second 1,000-word level. These available procedures allow researchers to provide evidence of the appropriate selection and use of TR instruments. However, Chang (2012) did not follow these procedures, and the students’ comprehension scores suggest that they did not comprehend the TR passages.

The Absence of Evidence of Comprehension of Timed Reading Material

TR comprehension scores did not demonstrate comprehension of the passages read, and in fact showed the opposite. The mean comprehension scores accompanied by their standard deviations (Table 1) suggest that in general, participants did not comprehend the TR instrument materials, especially in comparison with Beglar et al.’s (2012) prerequisite of research participants correctly answering 70% of comprehension questions by research participants. The scores indicate that some students were far from comprehending the TR material, which greatly reduces the construct validity of Chang’s (2012) inferences and conclusions. Comprehension scores were low despite a) Chang (2012) not controlling for guessing with a multiple choice instrument with only two distractors, and b) the comprehension questions being simple to answer (Millett, 2005a, 2005b) and it being possible to answer some questions from background knowledge without completely comprehending passages read (S. Millett, personal communication, November 20, 2013).

Table 1. Means, standard deviations, and ranges of student comprehension scores measured at three different times

Times	Timed Reading (n=18)			Repeated Reading (n=17)		
	Mean	(SD)	Range	Mean	(SD)	Range
1 (pretest)	16	(3.17)	12-24	16	(4.92)	8-25
2 (posttest)	20	(2.62)	15-27	18	(4.71)	10-27
3 (delayed posttest)	19	(3.36)	13-24	16	(5.17)	8-25

Note. Maximum score is 30; RT = Reading Treatment. Taken from Chang (2012, p. 72)

Chang (2012) did not control for guessing; the multiple-choice instrument had only two distractors accompanying each correct answer. This means that if a participant did not know the answer to a question, they had a minimum 33% possibility of selecting the correct answer. However, this possibility is often greater if considering the second point that the questions are simple and some can be answered from general knowledge. Chang (2012) stated that “another reason for using the test passages from New Zealand Speed Readings for ESL Learners was that these topics were unfamiliar to the participants. For example, many of the students were unaware that the seasons in the southern hemisphere are opposite those in the northern hemisphere” (p. 66). However, this seems not to run parallel with her earlier statement that “the participants were adults and they were thought to have some vocabulary knowledge from their own fields” (p. 65). Surely if it can be argued that if as adults, the participants would have lexical knowledge from their careers, it might also be expected that they know that the highest mountain in the world is not in Switzerland nor Austria but between Tibet and Nepal, or that Christmas Day is in December and not January nor June, questions from two of the passages used by Chang (2012), and representative of the difficulty of some of the questions from other passages.

This same issue is why the reviewers of Beglar et al. (2012) insisted that the authors provide evidence that the participants would not have been able to correctly answer comprehension questions from common knowledge and without comprehending accompanying TR passages (D. Beglar, personal communication, November 18, 2013). This evidence was produced by giving only the comprehension questions without the accompanying passages to a similar group of students. This writer recommends that similar research should include comprehension questions, which cannot be correctly answered without comprehending accompanying passages.

Conclusion

While Chang (2012) correctly identified a lack of literature providing evidence of the efficacy of TR and RR, the instrument selected to provide evidence of that efficaciousness, considering the lexical abilities of the participants, was inappropriate. The VLT data presented is in fact evidence of the participants not being able to comprehend the material used and not being able to read the TR material with the level of ease necessary for TR, and this was then supported by the TR comprehension scores found by Chang (2012). Researchers should adopt the strengths of this paper and consider its limitations when conducting research that incorporates TR.

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