



Rethinking our Definition of Fluency

Highlighted as one of the five pillars of literacy by the National Reading Panel (2000), fluency instruction is an integral component of any researched based reading curriculum. Lessons that include fluency instruction and assessment are standard practice throughout schools yet “experts still disagree about the precise definition of reading fluency” (Morris & Gaffney, 2011, p. 331). How can it be that experts cannot agree upon this definition when fluency “is often responsible for driving major instructional decisions?” (as cited in Kuhn, Schwanenflugel, Meisinger, 2010, p. 230). If we do not have an agreed upon definition of fluency, how do we know we are assessing it correctly? Are there additional components to fluency that we are not currently assessing and using to inform our instruction? A discussion of recent research answers these questions and seeks to enhance our current instruction and assessment of fluency.

Fluency Definitions

Experts concur that fluency is a critical component of reading ability. However agreeing upon a definition for fluency is difficult because there are various components that can contribute to its construct. A review of current research highlights that “there seems to be a growing consensus that accuracy, automaticity, and prosody all make a contribution to its construct” (as cited in Kuhn et al., 2010, p. 231) yet the definitions vary widely in the emphasis they place on the separate components. “The current implementation of fluency instruction in many

classrooms is often driven by assessments that build upon an incomplete conceptualization of [fluency] and can lead to both inappropriate instruction and a serious misconception of this essential characteristic of skilled reading” (p. 230). Effective instruction and accurate assessments require a thorough understanding of what constitutes fluency because “how we define a construct such as fluency determines and influences to a large degree how we will measure it” (Valencia, Smith, Reece, Min, Wixson & Newman, 2010, p. 289).

$$\text{Fluency} = \text{Accuracy} + \text{Automaticity (rate)}$$

“There is little dispute that accurate, automatic word recognition is a critical component of fluent reading” (Kuhn et al., 2010, p. 238) but a growing body of research shows that “fluency is related to accuracy and rate, but not synonymous with them” (Garnett, 2011, p. 296). Current practices in many classrooms, however, measure reading fluency as a “a computational estimate of reading fluency: word accuracy plus reading rate, commonly assessed by the students reading aloud a calibrated passage and the teacher then calculating the number of words read correctly per minute, wcpm.” (p. 294). The standard practice is to measure fluency in one minute intervals even though current research indicates that “one minute of reading overestimates reading rate for second and fourth graders ” (Valencia, et al., 2010, p. 277) and that “having students read for slightly longer may increase the predictive power

of accuracy scores” (p. 278). Despite the potential inaccuracy of this fluency calculation, it “is considered by some to reflect both word recognition and comprehension competence” (as cited, p. 271). Unfortunately “several studies have found considerably low correlations between wcpm and reading comprehension” (as cited, p. 273). This does not come as a surprise to some researchers who are concerned about the over emphasis of instruction to increase speed and accuracy. They warn of “the risks of teaching to a test of wcpm and the potential for comprehension to become detached from reading aloud” (as cited, p. 285).

“ The ultimate goal of reading is comprehension and many researchers question how fluency can be assessed without an associated measurement of comprehension. ”

There is also increasing concern that wcpm scores are being misused as general indicators of reading ability. Research shows that “relying solely on wcpm measures may fail to identify a substantial number of students who have reading difficulty, especially those with a difficulty in comprehension” (p. 288). Unfortunately, “these scores have been integrated into many different instructional programs and generic guidelines for assessment, making

the consequences significant for students” (p. 288).

Clearly the definition of fluency should include accuracy and automaticity. Research, however, is suggesting that an over reliance on accuracy and automaticity “simply because they are the most quantifiable elements of fluency” (as cited in Kuhn et al, 2010, p. 238) may lead to a very “limited view of fluency, [and] it is essential that reading educators consider a broader definition of [fluency], one that places weight on its less quantifiable elements” (p. 239).

Fluency = Accuracy + Automaticity + Prosody + Comprehension

While adding prosody to the definition of fluency is less quantifiable, it is arguably a very critical component of reading fluency. Prosody is defined as the ability to read with “appropriate expression or intonation coupled with phrasing that allows for maintenance of meaning” (p. 232). Measuring prosody is subjective, but consistency is possible when using the prosody rubric created by Zutell & Rasinski (1991). This rubric enables the teacher to rate a reader’s expression and volume, phrasing, smoothness and pace. Research has shown that “adding a prosody measure to a single wcpm measure did improve predictions of comprehension ...[and] the models that included individual



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measures of rate, accuracy and prosody improved the prediction even further for all grades...but most especially at later stages of reading development” (Valencia et al., p. 285). This research shows that there is a relationship between prosody and comprehension, but further research is needed to determine if comprehension leads to prosody or prosody leads to comprehension and if there is a reciprocal relationship between prosody and comprehension.

Fluency = Accuracy + Automaticity + Prosody + Comprehension

The ultimate goal of reading is comprehension and many researchers question how fluency can be assessed without an associated measurement of comprehension. Research has shown that “instruction that aims at increasing students’ wcpm without attention to comprehension has the potential to adversely affect comprehension and knowledge acquisition.” (Heibert, Samuels & Rasinski, 2012, p. 113). They warn that if a student can read fluently but has little comprehension, the fluency measurement has little validity. This fact that “meaning can be detached from fluent reading has very practical implications, reminding teachers to emphasize meaning making and to actively promote students’ monitoring of meaning” (Garnett, 2011, p. 298). Valencia and her colleagues’ research (2010) demonstrated the “increasing relationship between fluency and comprehension when fluency is defined as simultaneous attention to rate, accuracy, prosody and comprehension” (p. 286). The results of their research highlight that “having a comprehension focus for oral reading fluency assessments seems essential to the construct validity of oral reading fluency and the goal of skilled reading” (p. 287).

Current Research-Based Fluency Definition

The exact definition of fluency is still being debated, but it is

important that the assessments used to measure fluency accurately reflect a definition of fluency that incorporates results of current research. Kuhn, Schwanenflugel & Meisinger (2010) have created a definition that attempts to synthesize current research:

Fluency combines accuracy, automaticity and oral reading prosody, which, taken together, facilitate the reader’s construction of meaning. It is demonstrated during oral reading through ease of word recognition, appropriate pacing, phrasing and intonation. It is a factor in both oral and silent reading that can limit or support comprehension. (p. 240)

Using this definition of fluency to inform instruction and guide assessments will help teachers develop interventions that will meet the literacy needs of their students.

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