Fluency Matters

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Abstract
Although reading fluency has been dismissed and overlooked as an important component of effective reading instruction, the author makes the case that fluency continues to be essential for success in learning to read. Moreover, many students who struggle in reading manifest difficulties in reading fluency. After defining reading fluency, the article explores proven methods for improving reading fluency, and finally explores questions regarding fluency that when answered may lead to a greater emphasis on and understanding of reading fluency as a necessary part of teaching reading.

Keywords: Fluency, Reading, Struggling Readers, Automaticity, Prosody

Introduction
In the late 1970s I was working as an intervention teacher, providing instruction mainly to primary grade students who were experiencing difficulty in reading. For many of these students simply helping them master and put into practice their knowledge of sound-symbol relationships was sufficient to move the students forward. For a fairly significant number of students, more and different phonics instruction was not enough. They were already fairly good at sounding out written letters and decoding words. However, reading orally was clearly a painful experience. Although most of the words they encountered were read correctly, their reading was marked by excessively slow, letter by letter and word by word reading, lengthy pausing, and lack of expression. And, of course, this sort of reading also resulted in poor comprehension. It was clear that these students were not enjoying the experience nor were such experiences advancing their growth in reading.

For my part, I did not know exactly what else I should be doing. I had been doing instruction that was conventional for the day – language experience approach, phonics, read aloud to students, discussions of the texts had read. Yet, none of these approaches seemed to tap into the needs that were manifested in these students. Fortunately I had been working on my masters’ degree at the time and one professor had us reading some professional articles that were beginning to appear on this concept called reading fluency. One piece in particular by Carole Chomsky (1976) entitled “After decoding: What?” described an intervention where students were asked to read a text repeatedly while simultaneously listening to a fluent oral rendering of the text until they were able to read the text well on
their own without the assistance of the recording. Then students would continue the routine using a new text.

The approach seemed deceptively simple and since I was out of instructional ammunition I decided to give Chomsky’s approach a try with my own students. Remarkably, my students began to make significant progress in reading. Moreover, I found that as students achieved levels of reading performance that was the equal of their more normal developing classmates, they began to see themselves as readers and were developing confidence in themselves as readers. Although I had stumble on an approach to improving reading through reading fluency instruction, I discovered that fluency was not all that popular a topic in reading education. I recall digging through the teacher’s edition of the reading series we used in school, looking for reading fluency and how it was taught. Although I found detailed strands of instruction for phonics, vocabulary, and comprehension, I found very little that dealt with fluency and the development of fluency in students. I decided then that fluency was a topic I need to learn more about.

Defining Fluency

I have found that reading fluency can mean different things to different people. So, I would like to share my understanding of reading fluency. Reading fluency is made up of two distinct components at two ends of the reading spectrum – automaticity in word recognition and expression in oral reading that reflects the meaning of the text. In a sense, reading fluency is the essential link between word recognition at one end of the spectrum and reading comprehension at the other.

Automaticity in word recognition refers to the ability to recognize or decode words not just accurately, but also automatically or effortlessly. In their seminal article on reading fluency, LaBerge and Samuels (1974) noted that all readers have a finite amount of attention or cognitive energy to accomplish two essential tasks in reading – word recognition and comprehension. Attention expended for one task cannot be applied to another, it is used up. And so, when readers have to use excessive amount of their cognitive energy for word recognition, even if they are able to decode the words accurately, they have reduce the amount of cognitive energy available for comprehension and thus, comprehension suffers. These were the readers I was working with in my intervention class. They were able to decode most of the words, but simply listening to the excessive slowness of their word decoding, it was not difficult to tell that they were using up plenty of their cognitive resources analyzing and decoding the individual words in the text, they had little attention left for making sense of what they were reading.

Automatic word recognition takes phonics to the next level. Automatic readers not only recognize words accurately, they do it with minimal employment of their cognitive resources. The best examples of automatic readers are you, the person reading this article. As you read this piece, how many of the words did you have to analyze in order to sound out correctly? My guess is few if any. Most of the words you encountered in this article were identified by you instantly and effortlessly. Your minimal employment of attention means that you can reserve your attention for making meaning, or understanding the text itself.

Expression in oral reading, or prosody, is fluency’s connection to meaning or comprehension. In order to read something with appropriate expression that reflects the author’s purpose and meaning, the reader must have some degree of comprehension of the passage itself. Indeed, when reading orally with appropriate expression the reader is enhancing his or her own comprehension by using various prosodic elements (volume, pitch, phrasing, etc.) to expand on the meaning. Again, as I reflect on the students I had been
working with many years ago, their lack of expression and confidence in their oral reading was clearly apparent.

**Why Reading Fluency Matters**

Fluency matters simply because it is an essential element of proficient and meaningful reading. In his “interactive compensatory model” of reading fluency, Stanovich (1980) argued that the automaticity component of fluency is a distinguishing factor between good and struggling readers. Good readers are so automatic or effortless at the bottom up word processing requirement for reading, they can use employ their finite cognitive resources for the more important top-down requirement for reading – comprehension. Struggling readers, on the other hand, are not automatic in their word recognition, so they must use their cognitive resources for the more basic bottom-up of word recognition, thereby depleting what they will have available for more important top-down task – making meaning.

In offering an alternative explanation of reading fluency that focused on prosody, Schreiber (1980) suggested that good readers employ prosody in their reading to phrase text into syntactically appropriate and meaningful units that are not always explicitly marked by punctuation. Additionally, the oral emphasis placed on particular words or phrases in a written text create inferences that allow readers to understand text at level deeper than literal comprehension.

Over the past 30+ years, a growing body of evidence has demonstrated the link between both components of fluency and proficient and meaningful reading (Rasinski, Reutzel, Chard, & Linan-Thompson, 2011). Moreover, research into students who are identified as struggling readers or who perform poorly on high stakes silent reading comprehension tests has found that poor reading fluency appears to be a major contributing factor to their poor reading (Rasinski, & Padak, 1998; Valencia & Buly, 2004). Further, although reading fluency is identified as a foundational reading competency in the United States by the Common Core State Standards (Common Core State Standards Initiative, 2014), an expanding body of research has shown that many students in the upper elementary, middle, and secondary grades have not achieved adequate levels of fluency in their reading and thus experience difficulty in others of reading, including silent reading comprehension (Rasinski, et al, 2009; Rasinski, Rikli, & Johnston, 2010; Paige, Rasinski, & Magpuri-Lavell, 2012). Although reading fluency has been studied extensively for readers of English, the concept of fluency in reading should apply to the reading of other written languages and at least one study has demonstrated a relationship between reading fluency and proficiency in reading among fifth-grade Turkish readers (Yildirim, Ates, Rasinski, Fitzgerald, & Zimmerman, 2014).

Despite the growing evidence of the importance of fluency in reading, it is ironic that in the United States its perceived importance among literacy scholars and educators has been on the decline. For the past several years, annual surveys of literacy experts have consistently identified reading fluency as of one of the few topics that is considered “not hot” (Rasinski, 2012). Moreover, the same respondents also indicated strongly that reading fluency should not be considered a hot topic in reading. This disconnect may be due to the way reading fluency is commonly assessed and taught in many schools and in many commercial instructional programs aimed at teaching fluency.

**Assessing and Monitoring Reading Fluency**

In order to determine if fluency is a concern among readers and how progress in fluency can be monitored, we need to have methods of assessing fluency. Since automaticity refers to the ability to recognize words instantly and effortlessly, reading speed or rate offers a simple
approach to measuring this component of fluency. Readers who are automatic in their word recognition tend to read at a faster rate than readers who are less automatic; moreover readers who are automatic in word recognition should also be better in reading comprehension. Research has consistently demonstrated significant and substantial correlations between measures of reading rate and reading comprehension or other general measures of overall reading proficiency at a variety of grade levels (e.g., Deno, 1985; Rasinski, Reutzel, Chard, & Linan-Thompson, 2011). The most common protocol for assessing reading rate automaticity is to have a student read a grade level text for 60 seconds and simply count the number of words read correctly in that minute. The reading rate score can then be compared against grade level norms for students in the elementary and middle grades (e.g. Hasbrouck & Tindal, 2006). Students who fall significantly below the 50%ile score may be considered at risk in terms of the automaticity component of fluency.

While reading rate has been established as a strong measure of automaticity, a major potential problem occurs when reading fluency becomes instruction on how to increase one’s reading rate. Such an approach seems to have dominated reading fluency instruction over the past decade in the United States. The unintended consequence of such instruction is the development of readers who understand reading to be all about reading as fast as possible. Of course, reading becomes the quest for speed, reading comprehension often falls by the wayside (Rasinski & Hamman, 2010).

Reading speed is an outcome of automaticity, it is not the cause of automaticity. Automaticity in word recognition, as described in the next section is developed through extensive practice of authentic reading experiences. As I mentioned earlier in this article, I think most readers of this piece would consider themselves fluent in terms of their word recognition automaticity; yet I would conjecture that few, if any, of you experienced the kind of reading speed instruction that seems to have dominated reading fluency. Rather, we developed our automaticity in reading simply by reading extensively. Plenty of exposure to words and word patterns caused those words and patterns to become fixed in our memories and easily retrieved when exposed to them in subsequent readings.

Prosody or expressiveness in reading is the other component in reading. While there have been recent studies that have used high tech methods for assessing components of prosody, the most practical approach for assessing prosody is for informed teachers to simply listen to students read orally and to rate the students’ expressiveness on a guiding rubric (e.g., Zutell & Rasinski, 1992). Although a subjective measure of prosody, studies have found that such approaches are valid, reliable, and well correlated with other general measures of reading proficiency. Still, the subjective nature of assessments of prosody means that such assessments are often ignored or employed on a limited basis in schools. As a result, since prosody is not overly emphasized in summative or formative assessments it is often not taught or emphasized in instructional environments. As a result, an important aspect of fluency instruction is often minimized, thus also leading to its identification as “not hot” among reading experts.

Teaching Reading Fluency

Think of how you became fluent at any task and you’ll probably get a good sense of how reading fluency can be taught. I consider myself a fairly “fluent” driver – despite driving over 12,000 miles per year, I have not been in an accident in over 20 years nor have I received a traffic violation ticket over that same period. How did I become the fluent driver that I am today?

First, I watched my parents, and other adults in my life, drive during the first 16 years of my life. I observed the protocol my parents used for starting, backing, driving, and parking
the family car in various scenarios. I also became acquainted with the various controls on
different cars and the rules for driving as well as the signs that help to direct drivers. When I
turned 16 and received my learners’ permit to drive, I was finally able to get behind the
wheel and drive the family car on my own. However, I was never alone in these situations. I
always had one of my parents or another adult sitting next to me, offering me instructions,
guidance, and encouragement as I gradually learned the skill of driving. As I became more
and more proficient in my driving, my parents continued to sit next to me, but they offered
less and less guidance. Finally, my driving skills were tested at the local drivers’ licensing
station, I was found to be competent to a minimally acceptable level, and was issued a state
drivers’ license that allowed me to drive by myself, without the guidance or support of an
adult passenger sitting next to me. I must admit that even though I had my license to drive, I
was not a skilled driver. I had several minor accidents and also was issued a few warnings and
traffic tickets by the local police who observed me making deriving errors. However, I
continued to “practice” my driving, driving a variety of automobiles over the course of
several years.

Today, I consider myself a “fluent” or very competent driver of nearly any type of
conventional automobile. What I find interesting is that I am so competent (accurate and
automatic) in my driving ability I am able to engage in some other tasks while driving – I can
listen to the radio, chat with a passenger, or even talk on the cell phone while driving legally
and safely. This analogy also applies to reading where fluent readers are able to multi-task –
they are able to read the words in the text so accurately and automatically that I can, at the
same time, focus my attention on making meaning from the text.

Essentially my road to fluency in driving began with modeling of fluent driving by my
parents, supported driving where my parents or other competent adult driver sat next to me
while I drove to offer guidance, and finally independent practice in driving. The independent
practice involved repeated practice on my parents’ car at first, but as my driving proficiency
increased I was also able to drive a wider variety of automobiles, from my brother and sister’s
cars to cars owned by other relative and friends. Learning to become a fluent reader is in
many ways analogous to learning to drive.

**Model Fluent Reading**

Just as I spent a significant amount of time observing my parents drive during my early years,
children need to observe fluent reading by adults and other fluent readers. The value of
adults reading to children is compelling (Rasinski, 2010). Reading to children increases
children's motivation for reading, enlarges their vocabulary, and also improves their
comprehension. Reading to children also provides children with a model of what oral
reading should sound like – embedded with expression that helps to enhance the listener’s
understanding of the text. Often when I read to students we will follow up a quick discussion
of the story itself with a discussion of how “Dr. Rasinski read the story.” I will try to make note
of various prosodic features I embedded in my reading (e.g. “Did you notice how I changed
my voice when I became a different character?” “What were you thinking when I made my
voice louder and faster as this particular point in the story?) and help them see that these
features helped with their satisfaction with and understanding and enjoyment of the text
itself.

Occasionally when I read to students I will purposely start by reading in a less-than-fluent
manner (too fast, too slow, too much of a monotone). After a couple sentences I stop and ask
them what they noticed in my reading. They are not generally impressed with this sort of
reading. Their satisfaction and understanding of the text was impaired by such disfluent
reading. Of course, my message to the students is that they do not understand well or have
much satisfaction with texts read in such a manner, they should try not to read in such a manner themselves when reading independently as it will limit their understanding and enjoyment of their texts.

Provide Fluency Support through Assisted Reading

When I first began driving, I had the assistance of an adult who sat next to me in the car and provided expert support while driving. Support or assistance can also be made available to students while reading in order to improve their fluency. Essentially assisted reading involves the novice reader reading a text while simultaneously listening to a fluent oral rendering of the text. As you may recall, Carole Chomsky’s research that was so influential to me involved a form of assisted reading – students read a text while listening to a pre-recorded version of the same text. Assisted reading provides support in at least two essential ways. First it allows the students to decode all the words in the text successfully, even those that they would not be able to decode if reading on their own. Second, by listening to a fluent reading of the text, students are provided with a positive model of an expressive and meaningful reading of the text. Students hear prosody in action while reading the same text. Assisted reading, then, essentially supports both word recognition accuracy and automaticity as well as prosodic reading.

Assisted reading can take a variety of forms. One of the most common is a novice reader sitting next to a more fluent partner reader, with both readers reading the same text together. Various names and protocols have been used and developed to operationalize partner reading. In their review and summary of research on partner reading Rasinski, Reutzel, Chard, and Linan-Thompson report that the various iterations of this form of assisted reading result in positive reading outcomes for students.

Technology offers some interesting assisted reading applications. Students reading a text while listening to a fluent recorded version of the same text are engaged in assisted reading. Recent developments in technology have freed students from cassette tapes, tape recorders, and compact disc recordings. Using readily available voice recording applications, teachers (or others) can record their reading of a text, save the recording as a digital file, provide access to the recording via the internet, and have students read while listening to the digital recording on a mobile device. Although the studies using technology–assisted reading is limited, the results of the existing studies demonstrate great potential for improving students’ fluency and overall reading achievement (Rasinski, Reutzel, Chard, & Linan-Thompson, 2011).

Reading Practice

Once I had developed a minimally acceptable level of proficiency in my driving to be permitted to drive independently, I needed to continue practice my driving in order to achieve a level of high fluency. Similarly, developing readers need opportunities to read independently in order to achieve high levels of fluency, both automaticity and prosody, in their own reading.

Reading practice can actually take two general forms. The first and most common form of practice is wide reading. This is the type of reading that adults typically engage in and it is also the type of reading that usually occurs in school settings. Students read a text, discuss the reading with the teacher and/or classmates, perhaps engage in some extension activities related to the text, and then move on to the next text or book chapter. Wide reading is essentially on reading after another. Clearly this form of reading is important, in both silent and oral forms. Perhaps one of the most common forms of wide reading is found in the daily independent reading or sustained silent reading time often to students. The cliché, “The
more you read, the better reader you will become” has a lot of surface level truth to it. It is difficult to imagine a person becoming a proficient reader without practicing the craft of reading independently. Although not universally endorsed as an instructional activity (e.g. National Reading Panel, 2000), a growing body of scholarly writing (e.g. Stanovich, 1986; Morgan, Mraz, Padak, & Rasinski, 2008) and research (e.g. Allington, et al, 2010) suggests that increasing the volume of students’ independent reading will yield improvements in students’ reading fluency and other measures of reading proficiency. Reutzel, Jones, Fawson, and Smith (2008) argue that students often do not have much guidance or accountability in many independent riding protocols and suggest that providing greater structure and accountability during independent reading will yield even more positive results in students’ reading outcomes.

When learning to drive I found that I practiced only on my family’s car for several weeks before moving on to driving other cars. Reflecting back on this experience, it seems to me that if I had moved from one car to another after only driving each car once I would have not achieved a sense of mastery over the first car and experienced considerable difficulty quickly switching to new cars as new each car would be somewhat different from the others. By practicing only on one car for a period of time, I was able to master that car. Then, when I finally transferred by driving skills to other cars, what I had learned on that initial car was able to be transferred to other automobiles.

I think this repeated practice analogy also applies to reading. Many of our struggling readers read a text only once during wide reading and they do not read it well. Yet, they move on to a new text and read it once (and not very proficiently) as well. It will be difficult for these students to achieve fluency in general, if they are not given opportunities to achieve fluency over particular texts. Repeated practice on the same text (or car when learning to drive) allows students to achieve this form of fluency or mastery than can easily transfer to new, never-before-read texts.

In his landmark study on repeated readings (Samuels, 1979) had struggling readers read a text repeatedly until they achieved a certain level of proficiency on that text. Of course with practice they demonstrated improvement on the text practiced. The more interesting finding from Samuels’ research was that when students moved on to new texts that were as or more difficult than the previous text, there were vestiges of improvement on the new text as well. In the same way that I was able to transfer skills from one automobile to another after repeated practice of the first car, so to students are able to transfer competencies in reading fluency from one text to another by engaging in repeated reading of the original text. In their review of subsequent research on repeated reading with guidance and feedback provided to students, Rasinski, Reutzel, Chard, and Linan-Thompson (2011) conclude that such practice “has been shown to effective in promoting fluency growth among a variety of students across differing reading levels and text levels” (p. 301).

While repeated readings has been shown to be effective in improving reading, a problem in implementing repeated reading has caused some educators to question its value. In many programs for developing fluency, because automaticity is often measured by reading rate or speed, the goal of the repeated reading is to increase students’ reading rate from one reading to the next. This is not a terribly authentic reading experience as very few adult reading experiences requires adults to practice a text repeatedly for the purpose of reading the text fast. As mentioned earlier, the result of such overt emphasis on reading speed is a diminished focus by students on prosody and meaning while readings.

It seems that a more authentic approach to repeated reading where adults do, indeed, practice or rehearse a text. Rehearsal is truly a form of repeated reading where the rehearsal
is aimed at developing a prosodic and meaningful oral interpretation of the text. Texts that are often rehearsed and then preformed for a listening audience include scripts, poetry, song lyrics, speeches, and more. Several classroom-based studies have found that when students engage in a more authentic repeated reading and performance experience they make exceptional gains on various dimensions of reading, including measures of reading fluency (Griffith & Rasinski, 2004; Martinez, Roser, & Strecker, 1999; Young & Rasinski, 2009).

Next Steps

It is clear that reading fluency is an important competency that needs to be addressed in the literacy classrooms around the world. Research and scholarly writing have demonstrated that fluency is conceptually an important reading competency, that it can be measured relatively easily and quickly, and that instructional methods have been developed that have shown to be effective in improving students’ fluency. Still, although much is known about fluency, there are many questions and concerns that remain. Here are just a few based on my own understanding of the concept.

First, the concept of fluency itself may be a source of confusion as it appears to include two separate subordinate competencies (automaticity in word recognition and prosody) and related to a second major competency (word recognition). For some scholars and practitioners fluency in reading is automaticity, for others it is word recognition accuracy, for still others it is prosody, and for some it simply means generally proficient reading. It may be helpful if scholars began to sort these concepts out for clarity sake. One possibility would be to simply refer to word recognition accuracy, word recognition automaticity, and prosody as three distinct reading competencies. Reading fluency could then be used as a synonym for overall proficient reading.

The role of text type and text difficulty clearly needs further consideration for fluency development. In many existing programs for teaching fluency informational text is the primary text students used. The rationale for using such texts is that greater emphasis is being placed on students engaging in informational text reading, even in the primary grades. While there are compelling reasons for students to read more informational texts, I wonder if reading fluency instruction is good place for such texts to be used. Informational texts are generally rather lengthy. If students are asked to engage in repeated readings, the texts used cannot be excessively long as the repeated reading of a lengthy text would take more time than what would normally be allotted for fluency instruction. Secondly, the nature of informational texts does not easily lend themselves to expressive oral reading (prosody).

It may be wise to consider other text genres, genres that are meant to be performed orally. If texts are meant to be read orally for an audience they need to rehearsed (repeated reading) with the purpose of the rehearsal being expressive reading to aid the understanding of the audience. As mentioned earlier, texts that are meant to be rehearsed and performed include scripts, poetry, and song lyrics among others. Poetry and song lyrics also have the added feature of being relatively short, making them ideal for repeated reading over a short period of time. Interestingly though, these genres of texts have been regularly reduced in terms of their perceived importance and inclusion in the elementary grades.

Text level of difficulty is another issue that needs to be considered as we move forward in fluency. Should students be asked to read easy texts or texts that considered more challenging. On the surface it would seem that easier texts or texts that are within students’ instructional levels would be the appropriate choices as students are more likely to achieve fluency more quickly on such texts. There is a body of scholarly thought and evidence to support the use of such text levels especially with struggling readers (Hiebert & Mesmer,
However, in their review of fluency instruction, Kuhn and Stahl (2004) noted 6 studies that found that students experienced greater benefits when the reading texts were somewhat above the students’ instructional reading levels as opposed to when the materials were below their instructional levels. Is it possible to accelerate students’ reading fluency progress by providing them with materials to read, along with appropriate support, that are above the level they normally would be asked to read instructionally? Clearly, this is an area of great importance.

The issue of stamina in reading is one that has not been addressed sufficiently in fluency research. In most studies fluency is assessed during the first minute of reading a text. Moreover, fluency instruction generally occurs using relative short passages that can be read in less than five minutes. We do not know the impact on fluency or fluency’s impact on comprehension as students become more involved in a text at one setting. Does fluency improve or decline in the 20th minute of reading?

Finally, reading fluency has been identified as a foundational reading competency that should be mastered no later than grade 5 or below (Common Core State Standards Initiative, 2014). Yet, a growing body of research is demonstrating that significant numbers of students have yet to achieve sufficient levels of fluency, both automaticity and prosody, in the middle and secondary grades. Moreover, these students are likely to manifest difficulties in other areas of reading including silent reading comprehension. How is it that so many students appear to flow through the cracks? What can be done to assure that students attain and maintain adequate levels of reading fluency beyond the primary grades? I truly believe that reading educators can make a significant impact on student reading achievement and academic achievement in other areas that require fluency when answers to these and other questions can be found.

Despite the rocky road that reading fluency has traversed over the past several decades, many reading scholars continue to view it a critical foundational competency for students to achieve. Instructional methods and materials have been identified to improve fluency in students, especially those students who struggle in gaining fluency. Not only can fluency instruction be effective in improving students’ reading proficiency, it can also be an authentic, engaging, and pleasurable experience for students. As Omar, a student whose teacher used readers theatre scripts to improve his reading fluency and overall reading performance, indicated, “Readers theatre is the funnest reading I ever did before” (Martinez, Roser, & Stecker, 1999, p. 333).

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