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# The Effects of Explicit Instruction on the Development of Reading Fluency

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ABSTRACT

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Developing reading fluency in a first language (L1) is a topic that has received a considerable amount of attention. Developing reading fluency in a second language (L2), however, has received relatively little attention (Grabe, 2009). Anderson (2008) defines reading fluency as "reading at an appropriate rate with adequate comprehension." For adult ESL learners, Anderson suggests a minimum rate of 200 wpm with at least 70% comprehension. Previous studies that have been conducted on L2 reading fluency focus primarily on reading rate development. This study seeks to combine rate development and comprehension development to effectively foster L2 reading fluency. Doing so will provide an answer to the question, what effect does consistent reading fluency instruction have on adult ESL readers in terms of their reading rate and reading comprehension scores?

The 362 participants involved in this study are adult ESL students enrolled at the English Language Center at Brigham Young University in Provo, Utah. At the beginning and the end of each semester of the four semester-long study, each participant's reading rate and reading comprehension were evaluated. Each pretest and posttest used for evaluation included a reading passage and comprehension questions. The reading passages in each test were level appropriate with the posttest always being more difficult than the pretest to account for the natural learning that takes place during the duration of a semester. In between the pretest and posttest assessments, reading teachers were asked to implement one rate development activity or one comprehension development strategy on a daily basis.

The results from the McNemar procedure support the hypothesis that consistent reading fluency instruction effectively builds reading fluency by positively influencing rate development and comprehension development ($p < .001374$). The majority of the participants were not able to attain Anderson's (2008) standard of reading fluency by reading 200 wpm with 70% comprehension. Of the 362 participants that received one semester of treatment, 52 (14.36%) reached Anderson's standard of fluency. Of the 139 participants that received two semesters of treatment, 31 (22.30%) reached Anderson's standard of fluency. An analysis of reading rate and reading comprehension scores shows that the average participant, although still not considered a fluent reader, made notable progress toward fluency. Implications of these results, limitations, and suggestions for future are discussed at the conclusion of this thesis.

Keywords: fluency, rate development, comprehension development, instruction

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# Chapter 1

## Introduction

As a 19-year old, I had the opportunity to serve as a volunteer for my church for a period of two years in Portugal. Before departing for Portugal, I received nine weeks of training, much of which was focused on learning Portuguese, to prepare me for my assignment. I struggled with the language. In high school I had studied Spanish and I was constantly comparing the two languages. I finally accepted the fact that Spanish and Portuguese were two different languages and I needed to treat them as such. As I continued learning the language I experimented with many different learning strategies. I memorized vocabulary, wrote sentences, studied grammar, read in Portuguese, and attempted to speak Portuguese frequently throughout the day.

When I arrived in Portugal, I was instantly immersed in the language. I continued to use all of my resources to expand my proficiency in Portuguese. Months passed and I was beginning to feel more comfortable with the language and confident in my ability to use it. However, I confess that I had yet to develop a passion for the language and the culture of the Portuguese people.

The months began to pass more quickly as I became more involved in my missionary experience. As I became comfortable in my new environment, I noticed that my progress with my second language had all but plateaued. At this point in my volunteer involvement, I had developed the ability to effortlessly engage in conversation with the Portuguese people in their language. This is what I had worked for and I felt satisfied having arrived at this particular level of proficiency.

Some months later, the members of the church for which I was volunteering were asked to read The Book of Mormon by the end of the year. I decided it would be beneficial to read the

Book of Mormon in Portuguese, since I had yet to read it completely in any language other than English. I set small goals for myself that would eventually allow me to accomplish the greater goal of reading The Book of Mormon by the end of the year. I was unaware at that point of how consistent reading of this book in Portuguese would affect me.

The weeks passed and I continued to meet my goals. I read the book slowly in order to fully understand the text. As I progressed through the book, I began to develop questions about the Portuguese language that I had not previously contemplated. I had questions concerning pronunciation, syntax, grammar, vocabulary, morphology, and other linguistic aspects of Portuguese. As I searched for the answers to these questions, I noticed that my daily reading of The Book of Mormon in Portuguese was shaping my language study. I became intrigued with Portuguese. No longer was I satisfied with the basic level of proficiency in the language. I wanted to truly know Portuguese. My desire for a deeper understanding of the language grew with every page that I read in the Portuguese Book of Mormon. This new passion for the language left me constantly unsatisfied with my current level of proficiency. My ability to communicate with the Portuguese people was heightened. Not only did they understand me better, many of them asked if I was Portuguese. This only strengthened my confidence and furthered my desire to continually expand my language abilities. I felt that I was finally leaving the plateau on which I had been standing.

My daily reading of The Book of Mormon in Portuguese fostered my passion for the Portuguese language that I retain even today, six years later. I would be remiss if I did not also say that my constant craving for more knowledge of Portuguese influenced my adoration of the Portuguese people and their culture. For me, the act of consistently reading in Portuguese was more effective in developing my overall proficiency in the language than any other activity.

I am convinced that developing the skill of reading in a second language is unparalleled. Doing so allowed me to develop an advanced repertoire of the language that I would've forfeited had I not committed myself to reading daily in Portuguese. This conviction has been a driving influence for me as I have focused my research in the area of reading fluency.

This thesis focuses on the development of reading fluency in ESL students. Grabe (2009) said of second language (L2) reading fluency, "in L2 settings, there is little research on L2 reading fluency and very little discussion of how to define reading fluency" (p. 292). This area of second language acquisition has received a limited amount of attention in the past. Reading fluency in a first language, however, has received extensive attention over the years. The research reported in this paper is aimed at contributing to the small amount of research that is currently available in the area of L2 reading fluency.

According to Anderson (2008), reading fluency is "reading at an appropriate rate with adequate comprehension." Rarely, if ever, have researchers in the field combined reading rate development and reading comprehension development in a single study on L2 reading fluency. The studies concentrated on L2 reading fluency, which are explored in more depth in chapter two, focus primarily on either reading rate development or reading comprehension development (LaBerge & Samuels, 1974; Samuels 1994; Cohen, 2011; Tran Thi Ngoc Yen, 2012; Breznitz, 2006; Breznitz, 1987; Breznitz & Leiken, 2000; Leiken & Breznitz, 2001; Breznitz, DeMarco, Shammi, & Hakerem, 1994; Breznitz, DeMarco, Hakerem, 1993; Breznitz & Leiken, 2000; Meyer, Talbot and Florencio, 1999; Taguchi, Gorsuch, Takayasu-Maass, and Snipp, 2012; Perfetti, 2007; Perfetti and Hart, 2001; Durkin, 1978-79; Pressley, Wharton-McDonald, Mistretta, & Echevarria, 1998). The study explained in this thesis applies Anderson's definition of reading by combining reading rate and reading comprehension.

This study combines reading rate and reading comprehension by implementing six specific reading rate development activities and three specific reading comprehension strategies into one reading fluency curriculum. The purpose of the study is to answer the question, what effect does consistent reading fluency instruction have on adult ESL readers in terms of their reading rate and reading comprehension scores? In order to provide a satisfactory answer to this question, I will first consider previous research related to the development of reading fluency. After examining previous studies on L2 reading fluency, I will explain the methods related to the present study. This section will include details regarding the participants and the procedures used to evaluate L2 reading fluency development. The results of the study will then be presented and explained. The results and the implications of the results will then be discussed. Finally, limitations as well as suggestions for further research will be presented.

The hypothesis of this study is that daily implementation of these reading fluency activities and strategies in the reading classroom will result in increased reading rate and increased reading comprehension. The development of reading rate and reading comprehension promotes reading fluency, which is a noble goal for all language learners. Improving reading fluency can potentially heighten a language learner's proficiency in all areas of the L2. The surge in confidence that naturally accompanies reading fluency development may very well impact the learner's overall proficiency in the L2 by nurturing a deeper passion for the language.

# Chapter 2

## Definition of Fluency

In order to discuss reading fluency, it is important to first understand the definition of the term. In the field of TESOL there is no universal definition for reading fluency. Nearly every reading specialist has his or her own opinion as to which definition most accurately represents the phrase. Schwanenflugel and Ruston (2008) argue that fluency is "the orchestration of a number of sub skills, which, taken together, comprise reading fluency" (p. 2). These sub skills are "phonics and blending skills, word reading efficiency, word reading autonomy, text reading fluency, reading with comprehension, and reading with expression" (p. 2). Pressley, Gaskins, and Fingeret (2006) also define fluency in terms of stages of fluency development. They argue,

> there is no magical moment when fluency is achieved once and for all. Moreover, even a presumably fluent, proficient adult reader might falter if presented with a very difficult and unfamiliar text. Thus, there are probably stages of fluency, with word-level fluency a precursor to fluent, constructively responsive reading, which varies in adequacy depending on the difficulty of the text for the reader. (p. 1)

Grabe's (2009) definition of fluency posits, "Fluency in reading is 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 an expected outcome of fluent reading" (p. 291). Grabe's definition implies that reading fluency and reading rate are synonymous.

Many reading specialists define fluency as reading rate. According to some of these specialists, fluency is attained only after a specific reading rate has been reached. Table 1

illustrates a number of reading specialists that have associated reading fluency with a particular reading rate.

**Table 1: Required Reading Rates for Fluency**

| Reading Specialist | Required Reading Rate for Fluency |
|---|---|
| Carver (1990, 1992, 2000) | 300 |
| Grabe & Stoller (2002) | 300 |
| Nuttall (2005) | 300 |
| Jensen (1986) | 300 |
| Dubin & Bycina (1991) | 200 |

Rate is a key component of fluency but it is not the sole element. Anderson (2008, 2009, in press) provides a more complete definition of reading fluency. Anderson agrees that there are stages of fluency development. There are specific areas of reading that are developed separately and contribute to the overall development of reading fluency. However, Anderson does not agree that fluency and rate are synonymous. Rather, rate, or the amount of words read per minute (wpm), and comprehension of the text together make up reading fluency. A student's reading rate and reading comprehension determine his or her level of reading fluency. Anderson (2008) defines reading fluency as "reading at an appropriate rate with adequate comprehension" (p. 3). Anderson's definition is unique because it combines both reading rate and reading comprehension. After considering Anderson's definition, any definition of fluency that does not incorporate both rate and comprehension seems incomplete. Throughout this thesis, any reference to reading fluency relates to Anderson's (2008) definition of the term.

Anderson's (2008) definition of reading fluency leads teachers to inquire in regards to appropriate rate and adequate comprehension. What rate is considered appropriate and what

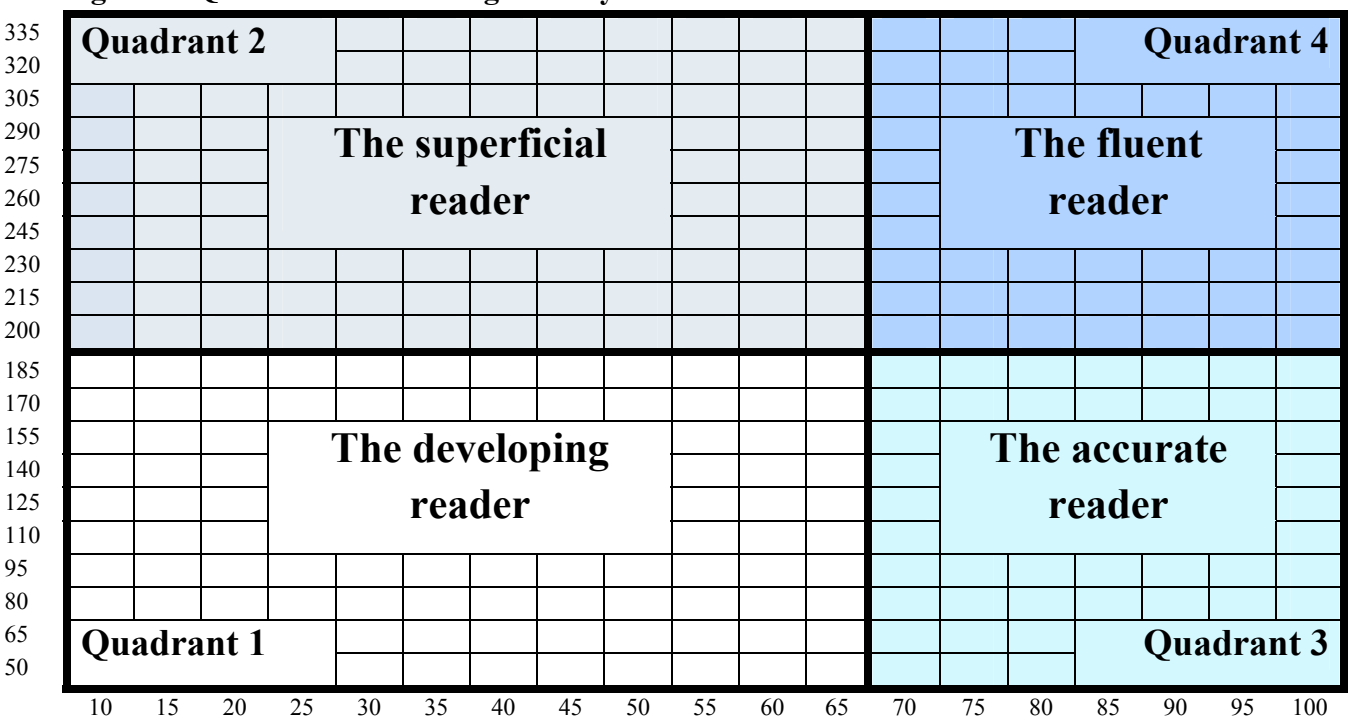
level of comprehension is deemed adequate? The answers to these questions differ depending on a variety of factors. The difficulty level of the reading material, the age of the learners, as well as whether the passage is read silently or orally all play a role in determining what rate is appropriate and what level of comprehension is adequate (Grabe 2009). For adult, L2 readers, Anderson defines reading fluency as reading at a rate of 200 words per minute with 70% comprehension.

Anderson (2012) places adult L2 reading participants that attain this standard of reading fluency under the category labeled "The Fluent Reader." However, it is important to understand that participants who do not fall into this category are not all lumped together in a non-fluent reader category. Because fluency is composed of rate and comprehension, it is possible to attain Anderson's (2008) standard in one of these two areas and not the other. Although the student that only meets the standard in one of the two areas is not considered a fluent reader, he or she is further along in the fluency development process than a student who does not meet Anderson's standard in either of the two areas.

Figure 1 illustrates Anderson's (2012) categorization of four different types of adult L2 readers. The vertical numbers on the side of Figure 1 represent reading rate, or the amount of words per minute the student reads. To acquire this number, it is necessary to know the number of words in the passage as well as the amount of time it took the student to read the passage. The amount of words read per minute is then determined by calculating the approximate amount of words that were read per minute. The horizontal numbers on the bottom are percentages that represent comprehension. The comprehension percentage denotes the general percentage of the text that the student accurately comprehends. A common way of evaluating comprehension is by requiring participants to answer comprehension questions after reading a passage. The amount

of questions answered correctly by the student determines the student's reading comprehension percentage.

**Figure 1: Quadrants of Reading Fluency**




Source: Anderson, N.J. (2012). Developing fluent, engaged L2 academic readers.

Figure 1 is divided into four quadrants. Where a reader falls within the quadrants determines his or her point in the process of fluency development. Quadrant 1 represents "the developing reader." This reader is labeled as such because he or she is a slow and inaccurate reader. Since the readers in quadrant 1 are reading at a rate of less than 200 wpm, they are categorized as slow. Since their reading comprehension percentage is less than 70%, they are categorized as inaccurate. Therefore, readers in quadrant one do not meet Anderson's (2008) standard of reading fluency.

Quadrant 2 represents "the superficial reader." This reader is labeled as such because he or she is a fast but inaccurate reader. The readers in quadrant 2 are reading at a rate of 200 wpm or higher, so they are categorized as fast readers. However, like the readers in quadrant 1, their

reading comprehension is less than 70%, which means they are also categorized as inaccurate readers. These readers are labeled as superficial because their high reading rate gives them the appearance of being decent readers. However, their low comprehension percentage reveals their reading disfluency. The readers that fall into quadrant 2 do not meet Anderson's (2008) standard of reading fluency.

Quadrant 3 represents "the accurate reader." This reader is labeled as such because he or she reads slowly but accurately. The readers that fall into quadrant 3 are reading at a rate of less than 200 wpm, which defines them as slow. However, the readers in quadrant 3 are attaining a level of comprehension percentage of 70% or higher, which qualifies them as accurate. However, fluency requires participants to read at both an appropriate rate and adequate comprehension. Since the readers in quadrant 3 are reading at a rate of less than 200 wpm, they do not meet Anderson's (2008) standard of reading fluency.

Finally, quadrant 4 represents "the fluent reader." The readers that fall into quadrant 4 are reading at a rate of 200 wpm with at least 70% comprehension. The readers in quadrant 4 are the only readers in the four quadrants that are reading at an appropriate rate with adequate comprehension. These readers meet Anderson's (2008) standard of reading fluency by reading at least 200 wpm with at least 70% comprehension.

Many language learners regularly read at a rate of at least 200 words per minute with 70% comprehension in their native language. However, reading in an L2 demands new skills that learners need to acquire. Fortunately, fluent L1 readers possess many skills that can, through consistent practice, transfer to their L2. First, L1 readers automatically recognize almost every word that they encounter. Second, they are able to read a passage aloud at a steady rate with good comprehension and little hesitancy due to syntax or words. Third, they read most texts at a

rate of 250-300 words per minute. Fourth, they can read for an extended period of time without difficulty (Grabe, 2009).

These four skills were originally meant to solely represent reading fluency in an L1. It is an unfortunate reality for those in the field of language teaching that there is a vast amount of research on L1 reading fluency and a very minimal amount of research on L2 reading fluency (Grabe, 2009). Many reading fluency studies focus on young children learning to read in their L1. Breznitz (1987) for example, carried out a study on elementary school participants and found that students who are pressed to read at a faster than comfortable reading rate are more effective readers. Breznitz, DeMarco, Shammi, & Hakerem, (1994) then analyzed the reading fluency of adult L1 speakers of English. Breznitz and another colleague, Leiken, (Breznitz & Leiken, 2000; Leiken & Breznitz, 2001) also analyzed adult L1 speakers of Hebrew. These two studies had the goal of determining if the results would prove to be the same as the results of the study involving the Elementary school participants. Both of these studies are explained in more depth in chapter 2. It is safe to assume that as the field of second language acquisition continues to grow, the amount of research on L2 reading fluency will also increase. There is a lot of potential research on topic. At this point, however, our knowledge on the matter remains somewhat limited. One goal of this thesis is to build upon the limited amount of existing research in L2 reading fluency.

Something that we do know about reading fluency in both an L1 and an L2 is that there are four central processes of reading. Kuhn and Stahl (2003) list these as automaticity, accuracy, rate, and prosody. As language learners develop these processes their reading fluency in English, or any L2, will also develop. These four processes tie in nicely with Anderson's (2008) two central components of reading fluency, rate and comprehension. The development of these four

processes goes hand in hand with the development of reading rate and reading comprehension. As rate and comprehension develop, so does reading fluency. Reading teachers must, therefore, understand how to develop these four central processes in order to increase reading rate and reading comprehension. Their participants will then naturally progress to quadrant 4 and be accurately labeled as "fluent readers" because they will have attained Anderson's (2008) standard of reading fluency.

**Fluency Development**

According to Anderson (2008) fluency is achieved when a student reads at an appropriate rate with adequate comprehension. Developing reading fluency in second language learners is the responsibility of the reading teacher. However, in order for a teacher to be effective in this pursuit, he or she must understand how to increase reading fluency. Anderson has said that many teachers lack the appropriate skills necessary to teach fluency. He stated, "Teachers don't know how to get participants to read fluently at an appropriate rate with adequate comprehension because they have not been taught how to do so" (personal communication, May 1, 2012). Fluency development in L2 reading participants must start with instructing teachers on how to increase their participants' fluency. Teachers must know how to effectively carry out both rate development and comprehension development activities in their classrooms in order to successfully increase reading fluency. The remainder of this literature review will focus on studies and activities related to rate development and comprehension development, the two key components that make up reading fluency. I will incorporate Kuhn and Stahl's four central processes of reading: automaticity, accuracy, rate, and prosody. The studies discussed will demonstrate how the development of these processes results in an increase in reading rate and reading comprehension.

## Rate Development

Before discussing rate, it is important to understand the difference between rate and speed in L2 reading. An appropriate rate does not imply that readers must be a speed-readers. Striving to read faster is not detrimental to reading fluency and, in fact, speed-reading can actually help develop fluency (Yen, 2012). However, in discussing rate development, the reader should understand that my goal is not to promote speed-reading. Rather, the goal is to encourage the development of reading rate to a point at which the rate is deemed appropriate.

### Automaticity

When discussing rate development, it is important to consider automaticity, the first central process in reading fluency. Automaticity in reading is the rapid and accurate identification of letters, syllables, and high-frequency words (The National Reading Panel, 2000). A theory that drives the idea of automaticity is the Automaticity Theory (LaBerge & Samuels, 1974; Samuels 1994). The core concept of this theory is attention. There is both external and internal attention. External attention is related to gathering information through the senses, as through smelling, tasting, touching, hearing, or seeing. This type of information gathering happens effortlessly. Internal attention, on the other hand, is characterized by the effort to come in contact with information sources, choosing what to focus on, and the limited amount of attention that the brain can place on specific information. La Berge and Samuels' (1974) theory focuses on the limited internal attention with which all readers must cope. The problem that many readers run into is the inability to quickly decode, or register the meaning of, words in a text. Poor readers spend too much energy decoding. As a result, they do not have enough internal energy left to adequately comprehend the text. There is no way to bypass the process of decoding words. The problem is that poor readers spend too much time decoding words. This

results in a reading rate that is less than appropriate as well as a level of comprehension that is less than adequate. Fluent readers, however, have learned to decode words automatically. As the method of decoding becomes automatized, the amount of internal energy exhausted through decoding lessens. Consequently, readers can allocate more of their internal attention to comprehending the text (LaBerge & Samuels; Samuels).

A reader's ability to automatically decode words suggests the development of automaticity. In other words, automaticity is reached when a reader is able to accurately and rapidly identify words. The reader who has developed automaticity no longer has to devote so much internal attention to decoding words. Attaining this level automaticity takes much cognitive effort and is a process. However, there are ways to expedite the process of developing automaticity in L2 reading. One effective way to develop automaticity is through repeated reading activities.

Anderson (1999) is a proponent of repeated reading activities because of their effectiveness in increasing automaticity and building reading rate. In the activity discussed in Anderson's (1999) book, *Exploring Second Language Reading*, participants reread a short passage various times until they reach a specified reading rate and comprehension percentage. An example would be reading a 100-word paragraph four times in two minutes. In this case, the goal would be 200 wpm. It is the teacher's responsibility to time the participants and indicate when the designated amount of time has expired. Although this is one way to carry out a repeated reading activity, there are other activities that are categorized as repeated reading activities because they also provide the student with repeated exposure to a particular text.

Repeated reading activities help learners automatize lexical access. They allow the learner to connect the text on the page to the definition of the word in the reader's mind.

Repeated reading activities permit the reader to have multiple exposures to a particular passage. This repetition is essential in building automaticity in the mind of the reader. When automaticity has begun to set in, it is no longer necessary that the reader allocate so much attention to the lexical items, or words and phrases, in the text. That attention may be reallocated to the comprehension aspect of the text. The transferred energy will be used to string together lexical items to comprehend and make sense out of the reading.

Repeated reading activities were used by Cohen (2011) in his English language classroom in Japan. He discusses how he effectively increased automaticity in his participants through specific repeated reading activities. In his article *Building Fluency through the Repeated Reading Method*, Cohen states that his participants made progress in the development of reading rate and comprehension through repeated reading activities. By the end of the study, his participants were reading faster and more accurately. They were also more capable of managing difficult texts.

Before conducting his study, Cohen perceived a difference between poor readers and fluent readers. He said, "participants who are not yet fluent readers seldom read when it is not required and tend not to enjoy the process when they do engage in it. The opposite, however, can be said of good readers – the more they read, the more they improve their reading abilities. It is probably safe to say that reading ability and reading confidence are very closely related. Repeated reading (RR) supports the learning of English by creating confident readers who enjoy reading…" (Cohen, 2011, p. 20). He proceeded to discuss three techniques that are effective in developing fluency, comprehension, and greater reading self-esteem. Cohen implemented three activities in his classroom for two years. The first technique is "Oral Repeated Reading" (ORR)

(Cohen, 2011, p.21). "Paired Repeated Reading" (PRR) (Cohen, 2011, p. 22) is the second technique. The third technique is "Reader's Theater" (RT) (Cohen, 2011, p.23).

*Classic Oral Repeated Reading*

An example of an ORR activity is to have the participants read and reread short passages aloud. Cohen (2011) recommends four readings of each passage. Goals can be set related to reading speed and phrasing. After the fourth reading, participants can move to the next passage.

*Paired Repeated Reading*

PRR, like ORR, focuses on pronunciation and prosody, which refers to rhythm, loudness, and pitch. In PRR, students work in pairs and read an interesting, but short, reading passage together. For this to be effective, Cohen says that participants must be excited about the reading. Cohen suggests allowing participants to choose their own material.

Cohen (2011) also suggests that the teacher demonstrate the activity first. The teacher should read a few sentences of the text poorly. Then the teacher should read those same sentences a second time in a more smooth and native-like way. The students should be instructed to read "with appropriate speed, rhythm, and intonation" (Cohen, p. 23). The students should help each other with mispronounced phrases and also make it a point to provide positive feedback between each reading. It has been proven that regular implementation of PRR improves oral reading rate and comprehension in the L1 classroom (Fuchs & Fuchs 2005; Koshkinen & Blum 1986).

*Reader's Theater*

In RT, participants are assigned to read different parts of a script. There is no memorization involved. Cohen (2011) says the goal of RT is "to increase reading self-confidence by practicing multiple readings of a text, thereby improving comprehension, fluency

and accuracy" (p. 23). RT allows participants to have fun and laugh while also increasing their oral reading rate and comprehension.

Cohen (2011) used these three activities to improve his participants' automaticity and reading rate. In the end, he noticed not only an increase in reading rate, but also in reading comprehension. Cohen's article, although effective in explaining a variety of repeated reading activities, never shows the gains that his participants made through consistently engaging in these three activities. Cohen supposedly implemented these three activities in his classroom for two years. However, he does not state the increase in reading rate or reading comprehension that resulted from the treatment. This study would be much more effective in convincing reading teachers of the value of repeated reading activities if it included quantitative data that supported Cohen's claim that, because of these activities, the participants developed a higher level of automaticity.

Cohen's (2011) study is important because, since his participants were English language learners, his research has its base in L2 reading fluency. However, his study was less effective in analyzing true fluency development because it solely analyzed rate development through repeated reading activities and neglected comprehension development activities. Therefore, Cohen's (2011) study is not ideal in terms of helping participants reach Anderson's (2008) standard of reading fluency, which is to read at 200 wpm with 70% comprehension.

**Rate**

The higher level of automaticity that Cohen (2011) helped develop in his participants did have a positive influence on his participants' reading rate. Rate is one of the four central reading processes (Kuhn and Stahl, 2003) and also one of the two components of reading fluency, according to Anderson's (2008) definition of reading fluency. A learner's reading rate represents

the amount of words per minute being read. Reading teachers can evaluate reading rate by keeping track of time as their participants read a passage. A teacher can hold up time cards after specific increments of time have passed. When the participants finish reading the passage, they simply look up and record their time. The teacher can then tell the participants how many words per minute they read by dividing the number of words in the passage by the amount of time that elapsed from start to finish. For example, if a student read a 500-word passage in 2 minutes and 30 seconds, the student read 200 words per minute. We know that because 500 words/2.5 minutes = 200 wpm.

Just because a student may read 250 words per minute does not mean that he or she is necessarily an effective reader. Grabe (2009) said that rate is "the ability to read through a text at a speed that allows for easy comprehension." A high reading rate is meaningless when accompanied by a low level of comprehension. The two, rate and comprehension, together make up reading fluency. Extremely fast readers with low comprehension are no better at reading than extremely slow readers with high comprehension. Participants must find an equal balance between rate and comprehension in order to meet Anderson's (2008, 2009, in press) standard of reading at an "appropriate rate with adequate comprehension" (p. 3).

In reading in an L1 or L2 there is a constant tug of war between these two elements of rate and comprehension. An increase in one can often result in a decrease in the other. The reading teacher must be sure to monitor this tussle to ensure that the two sides are balanced. If participants are reading so quickly that their comprehension is suffering or if participants are continually attaining high levels of comprehension with consistently low reading rates, the teacher needs to step in. It is the teacher's role to advise the student on appropriate measures to take, which will balance rate and comprehension while still influencing fluency development.

Effective advice to struggling readers may be to increase their reading rate. This adjustment could likely have a positive result on reading fluency as a whole. As stated earlier, it is not necessary for teachers to promote speed-reading in their classrooms. Reading at an appropriate rate and speed-reading are not synonymous. Participants should not feel like they need to be speed-readers in order to be fluent readers. Yet, there are benefits that result from learning to speed-read, which positively influence reading fluency.

Tran Thi Ngoc Yen (2012) discovered some of these benefits. The participants of Yen's (2012) study were 116 first year participants at a university in Vietnam. The participants were divided into four groups. The first and second groups were group A (31 participants) and group B (30 participants). These groups were the experimental groups. The third and fourth groups were group C (26 participants) and group D (29 participants). These were the control groups. The members of groups A, B, and C were English majors. Group D did not contain English majors.

Each of the participants in the four groups was required to complete a pretest to evaluate reading rate. At the conclusion of the study, each of the participants in the four groups were required to complete a posttest, which evaluated reading rate on other types of text. Following the pretest, group A and group B, the treatment groups, followed the university's regular English program and a speed-reading course. Group C followed the usual English program while group D, the additional control group, went through an alternative English program at a language center.

In order to calculate the increases in reading rate for the four groups, four distinct scoring methods were used. The two treatment groups each managed average reading rate increases of 50 wpm in each of the scoring methods. These two groups each had a similar average on their pretest scores too. This consistency confirmed the reliability of the scoring methods used in the

study and the speed improvement that was acknowledged. These two groups increased their reading rate continually as they progressed through the speed-reading course. The majority of the participants were still increasing their reading speeds during the last five sessions of the course.

The results also indicate that the treatment groups were able to read other texts at a reading rate of 46.16 wpm (group A) and 50.43 wpm (group B) faster than at the beginning of the study. Initially, the average reading rate of group A was 118.87 wpm. After the treatment, the average reading rate for group A had increased to 165.03 wpm. The average reading rate of group B before receiving the treatment was 119.73 wpm. After receiving the treatment, the average reading rate for group B had increased to 170.16 wpm. These increases were significantly greater ($p < 0.001$) than the increases made by the control groups, which were able to read other texts at a rate of 10.46 (group C) and 19.65 (group D) faster than at the beginning of the study. The results show that the treatment groups, group A and group B, both experienced increased their comprehension scores as well. In group A, 27 (87%) of the participants experienced an increase in comprehension after receiving the treatment. In group B, 26 (87%) of the participants experienced an increase in comprehension after receiving the treatment. This surge in comprehension is considerably vaster than the increases made by the control groups. In group C, 10 (39%) of the participants experienced an increase in comprehension after receiving the treatment. In group D, 9 (31%) experienced an increase in comprehension after receiving the treatment.

The treatment groups were able to increase their reading rate while maintaining their comprehension accuracy at roughly 70%. This indicates that readers are capable of learning to speed read without sacrificing comprehension. Another indication is that reading speed may be

linked to reading comprehension. The participants that significantly increased their reading speed also experienced a noteworthy increase in comprehension. Those participants that only slightly increased their reading speed were not as likely to experience an increase in reading comprehension.

Yen's (2012) study was a major contribution to the field by showing that second language learners are capable of increasing their reading rate and comprehension percentage on a variety of texts through learning to speed-read. However, this study does not help L2 reading teachers better understand what they can do in the classroom to effectively develop reading fluency. There is no mention of effective rate development or comprehension development activities being used to increase overall reading fluency.

In her book, *Fluency in Reading* (2006), Breznitz cites two studies that support Yen's (2012) conclusion that reading at a faster rate positively influences comprehension. Breznitz applied what is termed the "Acceleration Phenomenon" to two groups of readers in two separate studies. This phenomenon was discovered after a study was carried out on elementary school participants (Breznitz, 1987). The phenomenon posits that elementary school participants that are pressed to read at a faster than comfortable reading rate are more effective readers. The act of reading faster extended these participants' attention span, helped them overcome capacity limitations of short-term memory, positively influenced the processes of the working memory, and reduced the effects of distractions. Breznitz was anxious to see if this phenomenon also worked on older readers. In one study (Breznitz & Leiken, 2000; Leiken & Breznitz, 2001), university-level adult regular readers and adult dyslexic readers were required to read faster than their comfortable reading rate. The participants read in Hebrew, their L1. In another study, (Breznitz, DeMarco, Shammi, & Hakerem, 1994) university-level adults readers were required

to read faster than their comfortable reading rate. These participants read in English, their L1. The results of these two studies mirrored the results of the study with elementary school participants. The participants were able to increase their reading rate by 10% while also increasing their comprehension (Breznitz, DeMarco, Hakerem, 1993; Breznitz & Leiken, 2000). The dyslexic readers realized the greatest gains in reading fluency. Their decoding errors decreased, their comprehension increased, and they were able to read at a rate of approximately 15% faster than they had previously been reading. This study supports the notion that minor increases in reading rate result in higher levels of reading comprehension.

The participants of the studies discussed in the previous paragraph (Breznitz, 1987; Breznitz & Leiken, 2000; Leiken & Breznitz, 2001; Breznitz, DeMarco, Shammi, & Hakerem, 1994) were reading in their L1, however, the studies still can and should be applied to L2 reading in English. Each of the studies did a fine job revealing the relationship between reading rate and reading comprehension. The researchers involved in these studies focused on rate build up and looked at its effect on comprehension. From these studies we learn that an increased reading positively influences reading comprehension.

Another study that was performed found that, although increasing reading potentially results in an increase in comprehension, a decrease in reading rate does not necessarily result in a lower level of comprehension. Meyer, Talbot and Florencio (1999) assessed the comprehension levels of participants that were required to read at rates that were lower than their regular reading rate. The researchers hypothesized that the comprehension level of the participants would decline as the reading rate decreased.

The researchers assessed a group of 138 college participants attending Pennsylvania State University. The 138 participants included 37 men and 101 women. The participants read three

short passages at three speeds of 90, 130, and 300 wpm. Each text was displayed one sentence at a time. The participants each chose which speed was preferable. At the beginning of the study, the participants were made aware that the researchers wanted to find the best reading speed for them. They were informed that each paragraph in the passage they read would be displayed at a different reading rate. They were told to write down everything they remember about the passage after reading it. There were three passages, all related to frogs, and three reading speeds. Therefore, a total of nine reading conditions were used. The participants were randomly assigned to each of the conditions. By the end of the study, each participant had read all three passages at varying speeds and in variety of orders. The results did not support the researchers' hypothesis. "The participants' reading comprehension seemed to uniformly improve as the speed decreased. Thus, participants achieved their best performance at 90 wpm" (Meyer, Talbot and Florencio, 1999, p.310). These results suggest that reading slowly, at least as slowly as 90 wpm, does not jeopardize high comprehension. Moreover, the reduced reading rate may allow for greater comprehension of the text. However, it is imperative that L2 reading participants strive to read at an appropriate rate with adequate comprehension. Reading at a rate of 90 wpm may allow participants to comprehend a text fairly well but that rate is far below 200 wpm, which is the reading rate that Anderson (2008) deems appropriate for true reading fluency. There are reading contexts in which a rate of 90 wpm may be considered appropriate. However, Anderson (1999) states that varying reading rates are appropriate "only after we have reached a threshold level of reading rate, which I believe is around 200 wpm" (p. 64).

Rate seems to have quite an effect on comprehension. The research suggests that there are processes in the reader's mind that link reading rate to reading comprehension. In their most recent article, Taguchi, Gorsuch, Takayasu-Maass, and Snipp (2012) attempt to discover the

processes that occur in the mind during the development of L2 reading fluency through repeated reading (RR) exercises.

The researchers' participant was a 34-year old Japanese woman named "Naomi." Naomi's proficiency level in English was considered advanced. Throughout the study, Naomi was required to accurately describe in a diary her thought process while reading. The researchers developed 70 RR exercises for Naomi, which she completed in a period of 14 weeks. The researchers also developed a reading fluency pretest and a reading fluency posttest. The pretest was taken before the treatment of the 70 RR exercises commenced and the posttest was taken after the treatment was completed.

Before the treatment began, the pretest was administered to Naomi. It contained a 577-word passage with five accompanying comprehension questions. The posttest included a 574-word passage with five accompanying comprehension questions. Naomi was instructed to take each of the tests five times. A stopwatch was used during each of the evaluations to account for reading rate. After each of the five evaluations, Naomi answered the same five comprehension questions. This process was repeated with the posttest after the treatment.

The treatment consisted of 70 RR exercises derived from two novels, each of which were sited at a fifth grade reading level. Each of the 70 RR exercises was merely a passage acquired from one of the two novels. The procedure for each of the 70 exercises included four steps. First, the passage was read silently while the stopwatch kept time. Second, the passage was to be reread three times while listening to an audio recording of the text. Third, the passage was to be reread at least two more times while the stopwatch kept time. Fourth, the participant's thoughts concerning the particular passage used in the RR exercise were to be written in a diary.

Naomi continued the treatment for 14 weeks. At the end of the 14-week treatment, the results were gathered. The analyses revealed well-defined improvements concerning Naomi's silent reading rate and comprehension. During the first five sessions of the treatment, Naomi averaged 110.48 wpm on the first reading of a new RR exercise. For the last four sessions, she averaged 148.35 wpm on the first reading of a new RR exercise. Between the first average and the second average there was a notable improvement of 37.87 wpm. Naomi's pretest and posttest scores also indicate rate development. Upon first exposure to the pretest, she read the passage at a rate of 114.26 wpm. Upon first exposure to the posttest, after the treatment, she read the passage at a rate of 138.31 wpm. This indicates a gain of 24.05 wpm.

Since reading fluency is comprised of both rate and comprehension, fluency development can only be truly assessed after also comparing Naomi's pretest comprehension scores with her posttest comprehension scores. On the first evaluation of the posttest, after answering the five comprehension questions, she earned a score of 8 out of 15 points. Whereas, on the first evaluation of the pretest, she scored only 4 out of 15 points on the five comprehension questions. On each of the tests she attained 15 out of 15 points on the third and fourth evaluations. An analysis of this growth in comprehension indicates that Naomi's comprehension of a new text increased during the 14 weeks of RR exercises between the pretest and the posttest.

The results of this study by Taguchi et al. (2012) clearly show that RR exercises do positively influence reading rate and reading comprehension. An increase in reading rate and reading comprehension results in an overall increase in reading fluency. RR exercises, therefore, help adult L2 reading participants attain Anderson's (2008) standard of reading fluency, which is to read at a rate of 200 wpm with 70% comprehension.

Repeated reading activities were used in the study by Taguchi et al. (2012) as well as in Cohen's (2011) study. However, there is not a considerable amount of reading rate research that promotes other rate development activities. Reading specialists have written about other activities, in addition to repeated reading, which are effective in developing reading fluency by increasing reading rate. These in include, but are not limited to, rapid word recognition, rate buildup, class-paced reading, and self-paced reading.

Rapid word recognition activities build reading fluency through repetition of words. This repetition increases the reader's automaticity (Segalowitz & Hulstijn, 2005). Harris (1996) developed an effective rapid word recognition exercise. This exercise includes 10 words, which are distributed five times each throughout two columns of a worksheet. The participants are to locate and underline, amidst the distractors, the word on the right that matches the target word on the left. Between two and four distractors surround the correct word on the right. The participants are given one minute, or the amount of time the teacher designates, to identify all of the 10 words, five times each, in the worksheet. The following is an example of part of a rapid word recognition worksheet:

1. bias | bass base bias bliss bees
2. abandon | abandon abdomen abundant abound
3. arbitrary | obituary archery artillery arbitrary
4. accompanied | occupied accompanied accompany

Anderson (2009) has applied Harris' format to a variety of recognition activities including letters, numbers and phrases. Rapid letter and number recognition activities are best suited for lower level learners who are just becoming familiar with the letters and numbers used

in English. Phrase recognition activities are appropriate for advanced level learners who are developing the skill of chunking, which is reading words in small groups instead of individually.

Rate buildup is another exercise that Anderson (1999) recommends. In this activity, participants are given sixty seconds to read as much material as they can. At the completion of the first sixty seconds, the participants start again at the beginning of the text and read for another sixty seconds. The goal is to read more material the second time. This drill is repeated four times. The purpose is to read old material quickly. As the participants read the old material quickly, their eyes begin to move faster over the text and their reading rate increases (Anderson, 1999).

Class-paced reading is an additional activity that Anderson (1999) recommends for reading teachers. With a goal for minimal reading rate established, the teacher determines how much material the participants must read in one minute to reach the class goal. The teacher marks the reading beforehand, splitting it into segments. Every 30 seconds the teacher indicates that it is time for each student to move to the next segment. If the class stays with the teacher's pace, it will be reading at the appropriate rate.

Lastly, Anderson (1999) recommends a self-paced reading activity. In this activity, the student decides how much material must be read each minute in order to reach his or her goal. The student must know the average number of words on each line to determine how many lines must be read in a minute's time to reach the established goal. The teacher is to call out each minute as the participants read silently.

**Comprehension Development**

The rate development activities mentioned were created primarily to build reading rate. However, if developed correctly, an increase in reading rate additionally results in an increase in

comprehension. The previous studies discussed all indicate that rate is tied to comprehension. Increasing reading rate is an effective step to increasing reading comprehension. However, this fact does not suggest that a focus on rate development is sufficient when developing reading fluency. It is crucial that reading teachers incorporate comprehension development activities as well in their reading curriculum in order to meet Anderson's (2008) definition of reading fluency.

**Accuracy**

In order for fast readers to be truly fluent readers, reading at a rate of 200 wpm with 70% comprehension (Anderson, 2008), they must be able to accurately comprehend the words they read. Grabe (2009) said, "…fluent word recognition must not only be rapid and automatic, it must also be complete and accurate" (p. 291). Accuracy relates directly to reading comprehension. As an L2 language learner's accuracy increases, so does his or her reading comprehension.

A study by Charles Perfetti (2007) examined automaticity and accuracy at a deeper level. His study analyzed the lexical representations of words and how those representations influence reading comprehension. Perfetti's lexical quality hypothesis states that there is a lexical quality attached to each word representation. Perfetti (2007) defines lexical quality as "the extent to which a mental representation of a word specifies its form and meaning components in a way that is both precise and flexible" (p. 359). For example, the word "bug" has a variety of definitions. "Bug" may be a noun, meaning an insect. "There is a bug on the wall." It can also be a craze. "I have the travel-bug." "Bug" can also be a verb, meaning to annoy somebody else. "Her brother bugs her intentionally." It can also mean to hide a microphone. "The authorities bugged his house." In order for the reader to accurately automatize each of these different definitions of "bug," he or she must understand the precise meaning associated with the word in

its given context. There exists a large quantity of words that have very similar to exactly the same meaning. Another example is "morning" and "dawn." In order for readers to accurately automatize these two words, they must be flexible, meaning, able to apply the same meaning to both words. This precision and flexibility in automaticity allows the reader to quickly and reliably identify words in a text. A student that lacks the necessary precision and flexibility will frequently experience the confusion that results from low quality representations of words. Such a student is often incapable of accurately comprehending key words in a text, which results in low comprehension of the text as a whole. Perfetti concludes that reading rate and reading comprehension are directly tied to the learner's lexical quality, or how well the student is able to determine the word's correct definition based on the given context. As both reading rate and reading comprehension relate to lexical quality, reading rate and reading comprehension are also the two elements that make up reading fluency.

Perfetti cited many in-depth studies of lexical quality to support his claim. One in particular is a study carried out by Perfetti and Hart (2001). The participants involved were L1 readers of English. The goal of this study was to intentionally threaten the lexical quality of particular words and then evaluate the comprehension level of participants that read the words. For example, the word *wails* was used. This word's pronunciation, spelling, and meaning were all threatened by the word *whales.* Perfetti and Hart (2001) hypothesized that those more skilled in reading, which had been defined by comprehension assessment, would associate *wails* with its correct definitions and not the definitions of *whales*. The participants were given two words and were told to determine whether the words were semantically related. For example, *wails* and *dolphins*. In this example, the two words are not semantically related, although *wails* is a homophone of *whales,* which would be semantically related to *dolphins.* Another example

includes the two words *night* and *armor.* These two words are also not semantically related. Yet, *night* is a homophone of *knight,* which is semantically related to *armor.* The results of their study revealed that skilled readers experienced less homophone confusion with words of higher frequency than the unskilled readers. So, words like *night* and *armor* were not difficult for skilled readers but they were difficult for unskilled readers. Skilled readers have had more experience with words than unskilled readers and, therefore, are better prepared to accurately identify words with various frequencies and levels of lexical quality.

These two studies by Perfetti (2007) and Perfetti & Hart (2001), although based on L1 reading fluency, provide research on lexical quality and word frequency that offers insights regarding the area of accuracy that can and should be applied to L2 reading fluency. Essentially, the more familiar a student is with a word, the better prepared the student is to decode that word rapidly and correctly. Rapid and accurate decoding positively affects reading rate and reading comprehension by reducing the amount of time and effort the student exhausts when reading each word in a text. What are activities teachers can carry out in the classroom that will allow participants to become rapid and accurate decoders? These studies lack that vital information that would provide reading teachers with the necessary tools to build accuracy in the reading classroom. Through implementation of rate development and comprehension development activities in the classroom, participants will be able to rapidly and accurately decode text and will be on the path to reading 200 wpm with 70% comprehension.

As participants develop higher quality representations of words, they will more rapidly and accurately identify words. As a result, their reading fluency will increase. Fluency must incorporate accuracy as a subcomponent (Grabe, 2009). The *Handbook of Language and Literacy: Development and Disorders* (Stone, Silliman, Ehren, & Apel, 2004) explains that

automaticity in reading results in higher comprehension of the text at hand. Comprehension is gained by phonologically decoding each word in a text and then by stringing the words together to make meaning. As learners become more accurate decoders they will become more skilled in the area of reading comprehension.

These three central processes of automaticity, accuracy and rate are critical in L2 reading rate and comprehension development are effective in developing fluency in silent reading. However, in order to be a proficient oral reader, prosody must also be considered. Since this thesis focuses on the development of silent reading fluency, the researchers will not discuss the process of prosody.

From the previous studies it is clear that research in the field of reading comprehension is alive and active. Yet, statistics show that reading teachers are failing to increase their participants' reading comprehension skills. John Schacter (2006), author of *The Master Teacher* series, explains in the prologue of his book on reading comprehension that participants' reading proficiency in the United States has not improved for over 30 years. "For close to 30 years, only 30 percent of American participants have achieved proficiency in reading" (Schacter, 2006, p. vi). Schacter says the reason for the plateau in reading development is not a result of a lack of knowledge in the area of reading comprehension. Extensive research on reading comprehension is available. Reading teachers have comprehension strategies at their disposal. The plateau in reading development is a result of the minimal amount of time that teachers dedicate to quality comprehension instruction.

Teachers are not spending enough time instructing participants on how to better comprehend text. Schacter (2006) cites Durkin (1978-79) who observed upper-elementary grade classrooms 30 years ago. The focus of her study was to specifically measure comprehension

strategy instruction. She observed for a total of 4,500 minutes. Only 20 of those minutes were spent on reading comprehension instruction. Durkin noted that teachers spent nearly all of class time asking participants questions, and minimal time actually teaching participants strategies for how to answer the questions (Durkin). A study by Pressley, Wharton-McDonald, Mistretta, & Echevarria (1998) found that the amount of comprehension instruction today is no higher than it was 30 years ago. Participants are still spending too much time answering questions after reading the text instead of acquiring and employing comprehension strategies, which would allow them to better comprehend the text.

According to Schacter (2006), the last 30 years of reading comprehension research has proven two things:

1. "There are a number of scientifically proven comprehension strategies that increase student reading achievement" (Schacter, 2006, p. viii).
2. "These comprehension strategies are not finding their way into classrooms" (Schacter, 2006, p. viii).

The studies related to comprehension development previously mentioned are no exception to Schacter's (2006) criticism of comprehension instruction. Each of the previously mentioned studies failed to implement comprehension building strategies and evaluate their effect on L2 readers. In his book, Schacter (2006) explains what should be done in the classroom to develop reading comprehension in L2 readers. He shares a variety of strategies that are effective in building reading comprehension. Developing thin questions (answers are found in the text) and thick questions (answers must be inferred from the text), using graphic organizers, and SQ3R (survey, question, read, recite, review) are a few of the strategies that Schacter

explains. He claims that each of these three strategies is successful in fostering reading comprehension.

Learning to ask effective questions while reading has been proven to increase a student's performance by 14 to 50 percent (Schacter, 2006). In developing thin and thick questions, participants are asked to generate factual (thin) questions. These questions can be answered directly from the text. Participants are also required to generate inferential (thick) questions. These questions can be more difficult to form because they cannot be answered directly from the text. Rather, they require the student to infer the answer based on various pieces of information in the text. "Generating factual questions increases recall, but does little to develop more advanced reading comprehension skills like making inferences, drawing conclusions, or connecting the text with one's personal experience. Teaching participants to convert thin (factual) questions into thick (inferential) questions is a valuable skill" (Schacter, 2006, p. 5).

Along with asking effective questions, participants can also become more accurate readers by learning how to organize what they read. Research shows that participants who use graphic organizers to structure the information they are reading perform "80 to 100 percent better on recall, comprehension, and problem solving tests" (Schacter, 2006, p. 29). There exist a variety of graphic organizers but they all serve the same purpose, which is to represent and organize the important information in a text in a way that is easily comprehended by the reader.

In order for participants to effectively organize what they read, they must consistently monitor their comprehension while they read. Effectively monitoring comprehension requires participants to survey the text before reading. Participants will form ideas by reading headings and considering graphs and pictures. The participants must also start asking questions that they want answered based on the title, headings, and visuals. Participants should then read the text

with their questions in mind. While or after reading, the participants must recite, or answer their questions. Finally, the participants must review the text by rereading and answering their questions. This comprehension monitoring process is a reading comprehension strategy called SQ3R. Research has proven that teachers who implement this and other comprehension monitoring strategies can expect their participants to perform "25 percent better on standardized tests" (Schacter, 2006, p. 51).

**Conclusion**

Each of these comprehension development activities as well as the rate development activities that the researchers explain in this literature review have been suggested by reading specialists such as Neil Anderson. These activities successfully build reading rate or reading comprehension by strengthening one of Kuhn and Stahl's (2003) four essential reading processes. This review of the literature on reading fluency shows that no notable, published research has been carried out which analyzes the effectiveness of the consistent integration and implementation of specific rate development and comprehension development activities on reading fluency development.

Reading fluency, as defined by Anderson (2008) includes both reading rate and reading comprehension. Therefore, to increase reading fluency, reading teachers must concentrate on both aspects of reading. They must be prepared to implement effective rate development and comprehension development activities that will enable their participants to increase their overall reading fluency to Anderson's (2008) standard, which is reading at 200 wpm with 70% comprehension.

My goal is to enable English language learners at Brigham Young University's English Language Center (ELC) to become fluent readers by reading at a rate of 200 wpm with 70%

comprehension. This is the first study that tracks both the rate and comprehension of L2 readers of English and evaluates their progress toward the goal of reading fluently. To attain this goal, I apply previously presented rate development and comprehension development activities in the reading classroom.

The rate development activities that I implement in this study are: rapid word recognition, rate buildup, class-paced reading, and self-paced reading. The comprehension development activities implemented in this study are: developing thin and thick questions, using graphic organizers, and SQ3R. These activities are recommended by reading specialists and focus on reading fluency development. I will discover just how effective they are in building reading fluency.

**Research Question**

The question that I will answer relates to the value of reading fluency activities in the reading classroom. What effect does consistent reading fluency instruction have on adult ESL readers in terms of their reading rate and reading comprehension scores? I hypothesize that daily implementation of these reading fluency activities and strategies in the reading classroom will result in increased reading rate and increased reading comprehension. My hope is that the participants will, by the end of the study, meet Anderson's (2008) standard of reading fluency by reading 200 wpm with 70% comprehension. Dr. Neil Anderson and I are the two researchers involved in this study, which began in January of 2011.

# Chapter 3

## Participants

In order to determine the effect of consistent fluency activities on ESL readers, the researchers analyzed the reading fluency of participants at Brigham Young University's (BYU) English Language Center (ELC). The participants included participants from all seven proficiency levels at the ELC. These levels are Foundations A, Foundations B, Foundations C, Academic Preparation, Academic A, Academic B, and Academic C. At BYU's ELC, each student spends one semester in each of these levels. Participants may skip levels if they qualify to do so. Occasionally a student repeats a level. Foundations A is reserved for the lowest-level English language learners. Academic C is reserved for the highest-level English language learners.

This study included a total of 362 participants, all of which consented to participate in research studies conducted at the ELC (see Appendix A). The participants came from various countries around the world to study English at the ELC. Numerous participants were from Latin America. There were also various participants from Korea and other Asian countries. Certain participants came from Eastern Europe, the Middle East, and assorted countries in Africa. Many languages were represented by the participants' large range of nationalities. Table 2 illustrates the raw number and percentage of each L1 spoken by the 362 participants.

**Table 2: Number and Percentage of Each L1**

| | Participants | |
|---|---|---|
| First Language | n | % |
| Spanish | 156 | 43 |
| Korean | 72 | 20 |
| Portuguese | 40 | 11 |
| Chinese/Mandarin | 29 | 8 |
| Russian/Ukrainian | 18 | 5 |
| Japanese | 11 | 3 |
| French | 11 | 3 |
| Other | 25 | 7 |
| Total | 362 | 100 |

The participants included both males and females. The female participants outnumbered the male participants. Of the 362 participants, 199 (55%) were female while 163 (45%) were male.

The participants' age range was extremely large. To study at BYU's ELC, the student is required to have finished secondary school. Consequently, very few of the participants at the ELC are less than 18 years old. A majority of the participants are in their 20's but a small minority are over 40 years old. Many of the participants are studying at the ELC in order to prepare for admittance into a university where English is the medium of instruction with the goal of earning an undergraduate degree, or, as is the case of a select number of participants, a graduate degree. One of the purposes of BYU's ELC is to prepare participants to pass the TOEFL so they are able to apply to universities where English is the medium of instruction.

**Procedure**

Dr. Anderson has spent the majority of his professional career researching L2 reading fluency. He has conducted various trainings around the world and presented at a number of professional conferences on the subject of reading fluency. His expertise in reading fluency has

allowed him to contribute extensively to the field of second language teaching. This study is the result of efforts by both researchers, Dr. Anderson and myself.

As an L2 reading specialist and researcher, Dr. Anderson has had a positive effect on the methodology that reading teachers at the ELC employ in their classrooms. As part of this study, the researchers have trained the reading teachers at the ELC on effective teaching methods. At the beginning of each semester since January 2011, the researchers have held a one to two hour-long seminar focusing on L2 reading fluency. All of the reading teachers were required to attend these seminars in order to learn how to increase reading fluency through consistent implementation of activities that successfully build reading rate and reading comprehension.

The reading seminars focused on the reading fluency activities that were mentioned earlier: rapid word recognition, rate buildup, repeated reading, class-paced reading. self-paced reading, thick and thin questions, graphic organizers and SQ3R. These activities were emphasized because they build reading fluency by increasing reading rate and reading comprehension. The researchers provided a clear explanation of each of these activities in the seminars. Groups were formed where reading teachers had the opportunity to share their experiences in using these activities. At the end of each seminar, the researchers reminded each teacher in all of the proficiency levels of the class-reading goal to reach Anderson's (2008) standard of reading fluency by reading 200 words per minute with 70% comprehension.

Each semester of the four semesters of the study, this fluency goal was printed on a bright colored sheet of cardstock paper and distributed to every reading teacher at the ELC. The reading teachers were instructed to place the goal somewhere in their classroom where the participants could easily see it. Most teachers posted the goal high on the wall and close to the chalkboard. It read, "*Our Class Goal: 200 wpm, 70% Comprehension"*. Throughout each

semester, teachers made a constant effort to remind their participants of the class goal. The idea was for each student to keep the goal on his or her mind throughout the semester. The goal provided the participants with a standard they could use to evaluate their progress. Many participants have never actually timed their own reading or effectively gauged their own level of comprehension. As the teacher makes each student aware of his or her reading rate and comprehension percentage, participants are able to compare their current level of fluency with the class goal. Effective teachers could also instruct each individual student, according to their current reading fluency level, on what changes they can make in order to reach the class goal. For example, if the student currently reads at a rate that is faster than 200 wpm with a comprehension level of less than 70%, the teacher may instruct the student to slow down in order to increase his or her comprehension. If the teacher feels it is appropriate, he or she may instruct the student to maintain his or her reading rate or even attempt to increase it in order to build comprehension. If the student currently reads at a rate that is slower than 200 wpm with a comprehension level of more than 70%, the teacher would instruct the student to read faster even as long as the increased rate does not result in a comprehension percentage of less than 70.

Before properly coaching the participants on what they can do to reach the class fluency goal, a reading teacher must be aware of each student's existing level of reading fluency. In order to determine this, the researchers worked together to create reading fluency pretests for each of the seven levels at the ELC (see Appendix B). These pretests included a reading passage followed by comprehension questions. Each of the reading passages and most of the comprehension questions came from timed reading books including, *More Reading Power* (Mikulecky & Jeffries, 2004) and *Advanced Level Reading Drills* (Fry, 2000). The researchers chose to use passages from these particular books because they are easily accessible for the

reading teachers at the ELC. The students and the teachers are familiar with the layout of the reading passages and comprehension questions in these books.

**Table 3: Pretest Passage Length and Number of Comprehension Questions**

| Level | Words in Passage | Comprehension Questions |
|---|---|---|
| Foundations A | 250 | 8 |
| Foundations B | 250 | 8 |
| Foundations C | 350 | 8 |
| Academic Prep | 500 | 8 |
| Academic A | 500 | 8 |
| Academic B | 500 | 8 |
| Academic C | 1000 | 10 |

Table 3 illustrates the reading passage lengths and number of comprehension questions for the pretests for each of the seven levels at the ELC. Each of the reading passages chosen were considered level appropriate for participants in each level. The researchers took the liberty of shortening passages in order to provide a more appropriate text length for the level of the participants that would be tested. Particular comprehension questions were also altered when appropriate to more effectively evaluate the comprehension of the learners at a particular level. The main difference between the pretest reading passages for each of the levels at the ELC was the length.

For the lowest levels, Foundations A and Foundations B, the lengths of the reading passages were 250 words. At the Foundations C level, the lengths of the reading passages were 350 words. At the Academic Preparation, Academic A, and Academic B levels, the lengths of the reading passages were 500 words. For the Academic C level, the length of the reading passage was 1000 words. For all of the levels, except for Academic C, eight multiple choice comprehension questions followed the reading passage. Academic C participants were provided with 10 comprehension questions following their reading.

Before administering these pretests in their reading classrooms, each teacher received step-by-step instructions (see Appendix C) describing how to appropriately administer the pretest. Teachers also received a stack of time cards. The time cards are approximately the size of index cards. The times are spaced in 15-second increments. The pretests that the teachers were given included a reading passage for each student with the accompanying comprehension questions. A rubric (see Appendix D), which provided the reading rate in words per minute for the specific passage, was also distributed. This enabled the teacher to inform each student regarding his or her reading rate. The correct answers to the multiple choice comprehension questions were also provided on the rubric so the teacher could inform the participants of their comprehension score.

The pretest was administered during the first week of each of the four semesters of the study. Before administering the pretest, the teacher clearly explained the directions. The participants were only to start reading after the teacher said to begin. The participants were to read silently and avoid making distracting noises that could affect others in the classroom. When the participants finished reading the passage, they were to look up and write down the time that was printed on the time card that the teacher was holding at that moment. Since the time cards were spaced in 15-second increments, a student that may have read the passage in 1 minute and 40 seconds would look up and see "1:30." The researchers did not see this as a major limitation given the small difference that 14 seconds makes in evaluating words per minute read. This system also had the advantage of making the calculation of reading time and the resulting words per minute read simple since each 15-second increment was equal to one quarter of a minute or .25 minutes. After writing down their time, the participants were to flip the page and begin answering the comprehension questions. It was necessary that the participants answered the comprehension questions without looking at the reading. This forced the participants to focus on

the reading. By answering the multiple choice comprehension questions without referring to the reading, the pretests were successful in evaluating the participants' true level of comprehension. After all of the participants finished reading and answering the comprehension questions, the teacher informed the participants of their reading rate or number of words per minute read according to the rubric. The teacher also used the rubric to correct the comprehension questions with the participants and then inform them on their comprehension percentage. If the participants had questions about the reading or comprehension questions, the teacher would then take the time to answer their questions. After receiving their reading rate and comprehension percentage, the participants marked these numbers on the front of their pretest and the teacher collected them. Each teacher gave these completed pretests to one of the researchers. Soon after receiving the pretests, the reading rate and comprehension percentage for each of the participants were recorded.

The researchers determined that this method of evaluating reading fluency was most effective because it allowed both reading rate and reading comprehension to be analyzed simultaneously in one test. This method of analysis was also effective because the students at the ELC were accustomed to reading evaluations of this type. Their reading evaluations at the end of each semester, which determine the level in which they will study the following semester, are conducted similarly.

After administering the pretest, it was the teacher's responsibility to help each student in the class become a fluent reader by meeting Anderson's (2008) definition of reading fluency. Again, Anderson's (2008) definition of fluency is reading at 200 words per minute with 70% comprehension. This standard of reading fluency was the goal for each of the seven levels at the ELC. Although the goal is the same for the lower levels as the higher levels, the texts that

participants read at the lower levels are much easier than the texts being read at the higher levels. Therefore, the goal is appropriate for each of the seven levels.

During the reading fluency seminars, the researchers committed each reading teacher to carry out one fluency activity every day in their classroom. The fluency activity did not need to exceed the length of a few minutes. Based on effects of previously mentioned studies in chapter two, the researchers hypothesized that consistent implementation of fluency activities would result in higher levels of reading fluency. The rate development and comprehension development activities and strategies that were explained earlier are the same ones that the teachers focused on throughout the semester. Again, for rate development, these are rapid word recognition, rate buildup, repeated reading, class-paced reading, and self-paced reading. For comprehension development, these are thick and thin questions, graphic organizers and SQ3R.

In order to verify that teachers were being consistent in their implementation of daily fluency activities, a researcher observed each teacher at least once during each of the four semesters of the study. The purposes of these observations were to evaluate the teacher's ability to effectively carry out one of the fluency activities and to evaluate how the participants received the activity. After each observation, the researcher described to the reading teacher what was done well during the reading fluency activity and what could be improved. The researchers agree that a majority of the reading teachers not only felt comfortable carrying out reading fluency activities, but they did so in an entertaining way that sustained the participants' attention. During each of the observations, the participants were actively engaged in the reading fluency activity.

Besides observations, the researchers made themselves available to reading teachers that desired a demonstration of a particular reading fluency activity that they did not feel fully

prepared to conduct. These demonstrations were a positive experience for the teacher that asked for the demonstration, the participants, and the researcher. The teacher benefited from learning how to effectively carry out the particular fluency activity. The participants benefited by being very engaged and attentive, likely out of respect for the researcher that was not their regular teacher. The researcher also benefited from the experience by truly making an effort to give the teacher an exceptional example of the fluency activity.

The researchers also helped the reading teachers by providing them with rapid word recognition worksheets (see Appendix E). As a graduate research assistant for Dr. Anderson, I created rapid word recognition worksheets for both the Academic Word List and the top 3,000 most frequently used words in the English language. I frequently received emails from reading teachers requesting rapid word recognition sheets from both of these lists. I would simply send the requested worksheet to them and they would use it for their fluency activity the following day. The reading teachers also sent me lists of 10 or more vocabulary words that they were working with, and requested one or two rapid word recognition sheets that included those words. I made an effort to meet their requests and send the worksheets to them in a timely manner.

In order to follow up with the reading teachers on their consistent implementation of reading fluency activities, a survey (Appendix F) was sent to each of the reading teachers. This survey evaluated the teachers' use of reading fluency activities in the classroom. The questions in the survey focused specifically on the consistency of the activities; the amount of time spent each class period focusing on building reading fluency through strengthening reading rate and reading comprehension; which specific reading rate and reading comprehension activities were being implemented; and if the reading teachers desire any additional help from the researchers. The answers to these surveys gave the researchers an indication of the reading teachers' strengths

and weaknesses. The answers provided a better understanding of which classes were receiving fluency activities on a regular basis. The researchers also learned which fluency activities the teachers preferred. That information was useful in determining which fluency activities needed to be explained more clearly to the reading teachers so they felt comfortable employing them in the classroom.

After having been exposed daily to a variety of reading fluency activities, the participants were ready to demonstrate their reading skills through completing a reading fluency posttest (see Appendix G). The format of the reading fluency posttest and the pretest, which was taken at the beginning of the semester, were identical. Both tests included a reading passage and eight or ten comprehension questions. The posttest reading passages and comprehension questions, however, were not the same as the pretest. Each posttest reading passage focused on a different topic than the pretest reading passage for the same level and contained new comprehension questions designed for that particular reading passage. At the end of the semester, since the participants had all received a semester of reading fluency activities following the pretest, the participants were prepared to be re-evaluated. The difficulty level of each passage for the fluency posttest was higher than the difficulty level of the pretest passages. The purpose of increasing the difficulty levels was to adjust for the learning that had taken place throughout the semester. The heightened difficulty established level appropriateness for each test. The most significant change in the difficulty of each test was the modification of the length of each passage. Table 4 illustrates this change.

**Table 4: Posttest Passage Length and Number of Comprehension Questions**

| Level | Words in Passage | Comprehension Questions |
|---|---|---|
| Foundations A | 250 | 8 |
| Foundations B | 350 | 8 |
| Foundations C | 500 | 8 |
| Academic Prep | 500 | 8 |
| Academic A | 500 | 8 |
| Academic B | 500 | 8 |
| Academic C | 1000 | 10 |

The reading passage for Foundations A remained at a length of 250 words. However, the reading passage for Foundations B increased from 250 words on the pretest to 350 words on the posttest. The reading passage for Foundations C increased from 350 words on the pretest to 500 words on the posttest. The reading passages for Academic Prep, Academic A and Academic B persisted at a length of 500 words. The reading passage for Academic C continued at a length of 1000 words. As in the pretests, the posttests for each level, except for Academic C, contained eight accompanying comprehension questions for each reading passage. The reading passage for the Academic C posttest contained 10 comprehension questions. Besides the length of the passages, the researchers also considered the topic of the readings as well as the level of vocabulary contained in the readings when adjusting for the appropriate level of difficulty.

The teachers received the fluency posttests during the last week of the semester with the accompanying time cards, instructions, and rubric (see Appendix H). The participants were instructed to complete the posttest in the same manner that they had completed the pretest. Upon completion of the reading section, the participants were to look up and write down the time printed on the time card being held at that moment. They were then to answer the comprehension questions without referring back to the reading. After all of the participants finished, the teacher informed the participants of their reading rate score according to the rubric. The teacher then corrected the comprehension questions with the class. The participants wrote

their comprehension percentage next to their reading rate score. After discussing any questions about the reading passage or the comprehension questions, the teacher collected the posttests and handed them over to one of the researchers. Each student's posttest scores for reading rate and comprehension percentage were then recorded.

After recording the posttest scores of each student, the researchers compared them to the pretest scores of the same student. Both the pretest scores and the posttest scores were organized in an Excel spread sheet, which included each student's name, class level at the ELC, number of semesters participating in the fluency study, words per minute read and comprehension percentage for the pretest, and words per minute read and comprehension percentage for the posttest. The researchers used SPSS to analyze the pretest and posttest fluency data. An analysis on the reading rate scores and comprehension percentages for each of the participants was performed.

# Chapter 4

The purpose of this study is to evaluate the effect of consistent reading fluency activities on ESL readers in terms of their reading rate and reading comprehension. The researchers hypothesized that daily implementation of reading fluency activities in the reading classroom would result in an increased reading rate and an increased reading comprehension percentage. The goal of the study was to develop the participants' reading fluency by engaging in consistent rate development and comprehension development activities. By the end of the study, these participants would be closer than they were before the study to attaining Anderson's (2008) standard of reading fluency by reading 200 wpm with 70% comprehension.

## Results of Survey

In order to establish the consistent use of reading fluency activities in the classroom a survey was administered to the teachers. The researchers administered the online survey (Appendix F) twice during the course of the four-semester study to the reading teachers at the ELC. The responses of each of the two surveys have been combined.

The researchers inquired regarding the usage of each of the eight previously mentioned reading fluency activities and strategies in the classroom. The survey asked teachers to indicate whether or not they had implemented the specific activity or strategy in their classroom. This information allowed the researchers to determine which fluency activities were used most frequently and which ones the teachers tended to avoid. Table 5 shows each of the fluency activities that the researchers emphasized throughout the study. The response columns indicate the total number and percentage of positive responses that were provided by the 19 teachers that responded to the survey.

**Table 5: Implemented Fluency Activities and Strategies Survey Results**

| | Responses | |
|---|---|---|
| Fluency Activity | n | % |
| Rate Buildup | 17 | 21 |
| Class-paced Reading | 14 | 18 |
| Self-paced Reading | 14 | 18 |
| Repeated Reading | 13 | 16 |
| Word Recognition | 11 | 14 |
| Graphic Organizers | 8 | 10 |
| SQ3R | 2 | 3 |
| Thin and Thick Questions | 0 | 0 |
| Responses | 79 | 100 |

It is quite clear, according to Table 5, that the reading teachers favored the rate development activities over the comprehension development activities. The rate buildup fluency activity was the most popular among the participants receiving 17 (21%) of the 79 responses. Of the 19 participating teachers, 17 indicated that they had implemented the rate buildup fluency activity in their classroom.

Thin and thick questions was the least popular receiving 0 positive responses from the reading teachers that participated in the survey. There are certain factors that may have influenced this. First, teaching students to develop thin and thick questions may require teachers to prepare more than they would need to for the other activities and strategies. Second, teachers may not fully understand how to develop effective thin and thick questions themselves. As a result, they are not confident in teaching their students to do so.

The researchers also asked the teachers to report the average amount of time they spent on fluency instruction, either rate development activities or comprehension development

strategies, during a single class. Table 6 illustrates the average amount of time that the teachers spent per reading class on fluency instruction.

**Table 6: Average Amount of Daily Fluency Instruction Survey Results**

| | Responses | |
|---|---|---|
| Time | n | % |
| 2-5 minutes | 3 | 16 |
| 6-10 minutes | 6 | 32 |
| 11-15 minutes | 5 | 26 |
| 16-20 minutes | 5 | 26 |
| Respondents | 19 | 100 |

According to Table 6, a majority of the respondents (32%) reported spending an average of 6-10 minutes per class on reading fluency instruction. Many of the respondents (52%) reported spending an average of either 11-15 minutes per class or 16-20 minutes per class. Only 16% of those that responded to the survey reported spending 2-5 minutes per class on reading fluency instruction.

It is important to remember that every reading teacher at the ELC during the study did not respond to the online survey. Of the 22 teachers that were asked to complete the survey, 19 filled out the survey. The survey was also not administered during every one of the four semesters of the study. These two caveats are vital in considering the survey's overall representation of the implementation of reading fluency activities at the ELC.

## Results of Study

### Descriptive Statistics

The participants participated in consistent reading fluency activities carried out by the teachers. Each semester that an individual participant was involved in the study is equal to a

semester of treatment. Table 7 shows the number of semesters for which the participants received the treatment.

**Table 7: Participants and Semesters of Treatment**

| Participants | Semesters of Treatment |
|---|---|
| 362 | 1 |
| 139 | 2 |

All of the 362 participants received the treatment of consistent reading fluency activities for at least one semester and completed both the reading fluency pretest at the beginning of the semester at the reading fluency posttest at the end of the semester. Of those 362 participants, 139 received two semesters of treatment. An insignificant number of those 362 participants received three and four semesters of treatment. The low number of participants that received three and four semesters of treatment was to be expected since the average stay at BYU's ELC is approximately 2.75 semesters. However, the researchers decided to not consider those semesters when analyzing the results of the study because of the inconsequential number of participants that received three and four semesters of treatment. There are a sufficient number of participants that received one and two semester of treatment for an accurate analysis.

Table 8 illustrates the average results of the participants that received one semester of treatment. It provides the number of participants in each of the seven levels of the ELC, their average reading rate (wpm) for the pretest and posttest, and their average comprehension percentage for the pretest and posttest.

**Table 8: Averages After One Semester of Treatment**

| Level | Participants | Pretest wpm | Posttest wpm | Pretest Comp % | Posttest Comp % |
|---|---|---|---|---|---|
| Foundations A | 41 | 89.98 | 141.85 | 52.90 | 58.00 |
| Foundations B | 62 | 115.13 | 178.92 | 68.18 | 73.82 |
| Foundations C | 105 | 125.29 | 187.08 | 76.06 | 73.47 |
| Academic Prep | 54 | 162.13 | 182.41 | 64.98 | 72.54 |
| Academic A | 57 | 154.51 | 198.82 | 59.33 | 77.37 |
| Academic B | 30 | 179.40 | 206.63 | 63.80 | 65.90 |
| Academic C | 13 | 161.38 | 182.00 | 72.31 | 80.77 |
| Total/Averages | 362 | 141.11 | 182.53 | 65.36 | 71.69 |

According to Table 8, which gives the average reading rate and comprehension scores for each level, none of the seven levels were able to attain Anderson's (2008) standard of reading fluency by reading at least 200 wpm with 70% comprehension. However, with a posttest reading rate average of 206.63, the Academic B level was successful in reading at least 200 wpm. In terms of reading comprehension, all of the levels except for Academic B and Foundations A were successful in attaining a posttest reading comprehension percentage of at least 70%.

Table 9 follows the same format as Table 8. It illustrates the results of the participants that received two semesters of treatment.

**Table 9: Averages After Two Semesters of Treatment**

| Level | Participants | Pretest wpm | Posttest wpm | Pretest Comp % | Posttest Comp % |
|---|---|---|---|---|---|
| Foundations A | 3 | 133.67 | 178.67 | 50.33 | 62.67 |
| Foundations B | 5 | 135.80 | 179.60 | 65.20 | 55.20 |
| Foundations C | 34 | 166.94 | 204.97 | 69.32 | 67.18 |
| Academic Prep | 29 | 181.76 | 178.66 | 65.28 | 70.00 |
| Academic A | 40 | 166.40 | 210.45 | 67.78 | 81.78 |
| Academic B | 20 | 205.70 | 191.45 | 73.30 | 71.70 |
| Academic C | 8 | 168.50 | 186.75 | 70.00 | 82.50 |
| Total/Averages | 139 | 165.53 | 190.07 | 65.88 | 70.14 |

According to Table 9, which gives the average reading rate and comprehension scores for each level, the Academic A level attained Anderson's (2008) standard of reading fluency by reading at least 200 wpm with 70% comprehension. None of the other levels attained Anderson's standard of reading fluency. However, with a posttest reading rate average of 204.97, the Foundations C level was successful in reading at least 200 wpm. The Academic A level attained an average of 205.70 wpm on the pretest but dropped to a 191.45 wpm average on the posttest. In terms of reading comprehension, all of the levels except for Foundations A, Foundations B, and Foundations C were successful in attaining a posttest reading comprehension percentage of at least 70%. Overall, the averages for pretest wpm, posttest wpm, and pretest comprehension percentage increased after the participants had received two semesters of treatment. Only the average for posttest comprehension percentage decreased from 71.69% after one semester of treatment to 70.14% after two semesters of treatment. Although it decreased by 1.55%, this

posttest average continues to meet Anderson's standard of reading comprehension percentage by surpassing 70%.

In order to more fully analyze the data in Table 8 and Table 9, the researchers used the McNemar test. Table 10 organizes the data for the two semesters in cross tabs. The first column shows the semesters of treatment that the specific group of participants received. The first group of participants includes 362 participants that each received one semester of treatment. The second group of participants includes 139 participants that each received two semesters of treatment.

The McNemar test was effective in organizing the data in Table 10 because the research involved repeated measures and categorical data. The participants each completed a pretest at the beginning of each semester and a posttest at the conclusion of each semester. Each participant was surveyed twice per semester. Table 10 reserves the first column for the pretest and the second column for the posttest.

According to Table 10, 52 out of 362 participants or 14.36% were considered fluent readers after receiving one semester of treatment and completing the reading fluency posttest. These are those that read at a rate of at least 200 wpm with at least 70% comprehension, after having received one semester of treatment. The second row of Table 10 indicates that 31 of 139 or 22.30% were considered fluent readers after receiving two semesters of treatment and completing the reading fluency posttest.

**Table 10: McNemar Test**

| Semesters of Treatment | | Post Speed Accuracy | | |
|---|---|---|---|---|
| | | Not Fluent | Fluent | Total |
| 1. Pre Speed Accuracy | Not Fluent | 304 | 49 | 353 |
| | Fluent | 6 | 3 | 9 |
| | Total | 310 | 52 | 362 |
| 2. Pre Speed Accuracy | Not Fluent | 104 | 21 | 125 |
| | Fluent | 4 | 10 | 14 |
| | Total | 108 | 31 | 139 |

The low percentage of fluent readers may cause these results to appear insignificant. In order to know how significant the results actually are an analysis of the data was carried out. Table 11 shows the results of the analysis for the two semesters being analyzed.

According to the Table 11, the data analyzed received a *p* value of 0.001374. This number is significant because it indicates that the chances of this study producing the same results without the treatment occurring between the pretest and the posttest is approximately one in a thousand. Therefore, the *p* value of this study indicates that the null hypothesis has been rejected and the results are indeed significant.

**Table 11: Analysis of McNemar Test**

| McNemar Statistical Component | Measurement |
|---|---|
| McNemar Test | 10.24 |
| Degrees of Freedom | 1 |
| p-Value | 0.001374 |
| Effect Size r | 0.270 |
| Power d | 0.5618 |

The effect size r in this analysis of the results is 0.270. Although this effect size was not powerful enough to have a large effect, the treatment did produce a small effect.

The power d size refers to the probability that the researcher will avoid rejecting a null hypothesis that is in fact true. Because the power d size is 0.5618, the researchers can be confident that a true null hypothesis was not rejected. In other words, the null hypothesis was rejected because it was false.

It is important to consider the values presented in Table 11 because they truly show the significance of the results. Without considering this statistical analysis, the results of the study could appear to inadequately support the researchers' hypothesis. However, an analysis of the results clearly establishes support for the researchers' hypothesis that consistent implementation of reading fluency activities in the classroom positively influences the development of reading fluency.

# Chapter 5

## Discussion of Results

The results of the study provide an answer to the researchers' question, "What effect does consistent reading fluency instruction have on adult ESL readers in terms of their reading rate and reading comprehension scores?" An analysis of the results of the survey on fluency activities in the classroom (Appendix F) satisfies the first part of the research question by establishing that fluency instruction did occur consistently in the reading classrooms at the ELC. A statistically sound analysis of the reading fluency pretests and posttests completed by the participants satisfies the second part of the research question. The discussion of these results focuses on the survey on fluency activities, the McNemar analysis, reading rate and comprehension percentages of participants with one semester of treatment, and reading rate and comprehension percentages of participants with two semesters of treatment.

### Survey

The results of the teacher survey in Table 5 and Table 6 indicate that the teachers who responded emphasized the usage of certain fluency activities over others. The respondents favored rate development activities over comprehension development activities. The results also show that a majority of the respondents devoted over 10 minutes per day to reading fluency instruction.

The fact that rate development activities were employed more frequently than the instruction of comprehension building activities is not detrimental to the study. It is clear, according to Tran Thi Ngoc Yen's (2012) study on the effects of speed-reading, that rate development positively influences reading rate as well as reading comprehension percentage. This explains how the results of the study can indicate reading rate and reading comprehension

percentage increases when the reading teachers placed more emphasis on rate development than comprehension development. On the contrary, no study, according to the researchers' knowledge, has shown that implementation of comprehension building activities positively influences reading rate.

**McNemar Analysis**

An increase in reading rate and reading comprehension percentage is observed when analyzing Table 10, which displays the data in a McNemar test. The participants listed in the table are those who completed the fluency pretest at the beginning of the semester and the fluency posttest at the end of the semester. Of the 362 participants, nine, or 2% attained Anderson's (2008) standard of reading fluency at the beginning of the semester. These nine participants were reading at a rate of at least 200 wpm with a comprehension percentage of at least 70% before receiving one semester of fluency treatment. After one semester of treatment, 52 of the 362 participants, or 14% had achieved Anderson's standard of reading fluency. This is an increase of approximately 12%. Of the original 362 participants, 139 received two semesters of treatment. Of those 139 participants, 14, or 10%, attained Anderson's standard of fluency before receiving the second semester of treatment. After receiving the second semester of treatment, 31, or 22%, of the 139 participants were considered fluent by Anderson's standards.

Not only was there a higher percentage of participants that read fluently at the beginning and end of the second semester of treatment than at the beginning and end of the first semester of treatment, but a 12% increase in fluency was maintained. The percentage of participants attaining Anderson's standard of fluency grows as the treatment of reading fluency activities and strategies is administered each semester to the participants.

Table 11 displays additional information that confirms that the observed increases in reading fluency over the course of the study are in fact significant. A *p* value of 0.001374 supports the significance of the results by establishing the extremely low possibility that the positive results are a product of chance. Furthermore, the power d size, at 0.5618, warrants the rejection of the null hypothesis because it was false. The effect size r, at 0.270, is not powerful enough to have a large effect but is clearly powerful enough to have had a small, yet significant, effect.

The effect was large enough to support the researchers' hypothesis that daily implementation of these reading fluency activities and strategies in the reading classroom would result in increased reading rate and increased reading comprehension.

Although the results support the researchers' hypothesis, the researchers also hoped that the participants would, by the end of the study, meet Andersons' (2008) standard of reading fluency by reading 200 wpm with 70% comprehension. This hope was not satisfied by the end of this study. However, it is important to consider the overall fluency development which occurred during the course of the study. The progress made by the participants that did not achieve fluency by the end of the study is significant and should be discussed.

**One Semester of Treatment**

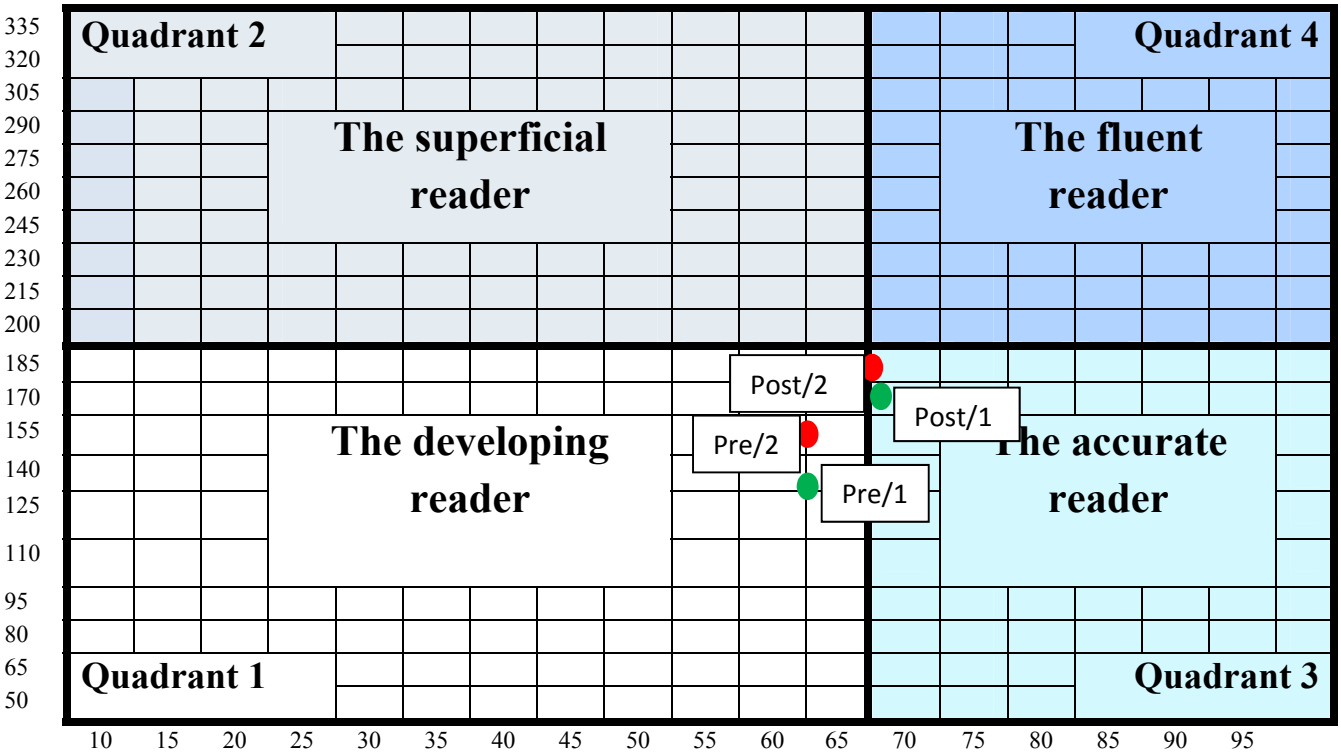
Table 8 displays the average pretest and posttest scores for the 362 participants that received one semester of treatment. Although none of the levels met Anderson's standard of fluency based on their class averages, all of the levels experienced increases in reading fluency. In fact, all of the levels increased their average reading rate between completing the pretest and the posttest. The lowest was an increase of 20.28 wpm. The greatest was an increase of 63.79 wpm. All of the levels, except for Foundations C, which experienced a decrease of 2.59%,

increased their average reading comprehension between the pretest and the posttest. The lowest was an increase of 2.1%. The greatest was an increase of 18.04%. When considering the combined averages of each of the levels, it is clear to see that overall fluency development occurred during the study for the participants that received one semester of treatment. The reading rate increased from 141.11 wpm to 182.53 wpm. This is an increase of 41.42 wpm. The reading comprehension percentage increased from 65.36% to 71.69%. This is an increase of 6.33%.

**Two Semesters of Treatment**

Table 9 displays the average pretest and posttest scores for the 139 participants that received two semesters of treatment. The Academic B level achieved fluency at the beginning of the semester before receiving the second semester of treatment. The Academic A level achieved fluency after receiving the second semester of treatment. Although none of the levels met Anderson's standard of fluency based on their class averages, all of the levels experienced increases in reading fluency. Each level, except for Academic B and Academic Prep, which decreased by 14.25 wpm and 3.1 wpm, respectively, increased its average reading rate between completing the pretest and the posttest. The lowest was an increase of 18.25 wpm. The greatest was an increase of 45 wpm. All of the levels, except for Foundations B, Foundations C and Academic B, which experienced a decrease of 10.00 wpm, 2.14 wpm 1.6 wpm, respectively, increased their average reading comprehension between the pretest and the posttest. The lowest was an increase of 4.26%. The greatest was an increase of 20.00%.

**Figure 2: Progress Within Quadrants of Reading Fluency**




Source: Anderson, N.J. (2012). Developing fluent, engaged L2 academic readers.

*Note.* Green Dot = First semester of treatment; Red Dot = Second semester of treatment; Pre/1 = Pretest before first semester of treatment; Post/1 = Posttest after first semester of treatment; Pre/2 = Pretest before second semester of treatment; Post/2 = Posttest after second semester of treatment.

When evaluating the combined averages of each of the levels, there is once again an obvious overall fluency development that occurred. The reading rate increased from 165.53 wpm to 190.07 wpm. This is an increase of 24.54 wpm. The reading comprehension percentage increased from 65.88% to 70.14%. This is an increase of 4.26%. The increases that occurred over the course of the study are notable because they show that, although not all of the participants achieved fluency during the course of the study, the average participant is progressing toward Anderson's (2008) standard of reading fluency. This progress is clearly shown in Figure 2.

According to Figure 2, the average reading rate and comprehension percentage scores were not high enough after one semester or two semesters of treatment for the average

participant to be categorized as a fluent reader. However, after receiving two semesters of treatment, it is clear that the participants are closer to being categorized as fluent readers. The pretest and the posttest averages for the participants that received two semesters of treatment are similar in terms of reading comprehension but significantly higher in terms of reading rate. This indicates that the average participant is successfully maintaining his or her reading comprehension percentage at approximately 70% while increasing his or her reading rate. This visible progress toward reading fluency is encouraging.

**Implications of Results**

At the end of the study, the average participant was still reading below 200 wpm with less than 70% comprehension. However, the results show that the majority of the participants are progressing toward fluency. It may take another semester or two of consistent reading fluency instruction in order for the average participant to be a "fluent reader" at their particular level. However, rapid word recognition, rate buildup, repeated reading, class-paced reading, self-paced reading, graphic organizers, SQ3R, and thin and thick questions are activities and strategies that when implemented consistently in the reading classroom, have a potentially positive effect on reading fluency development. Without a control group, however, it is not possible to determine the magnitude of the rate development activities and comprehension development strategies generally or individually.

Rapid word recognition activities have been proven in the past to increase automaticity (Segalowitz & Hulstijn, 2005). The researchers are confident that the implementation of rapid word recognition activities in this study allowed participants to increase their automaticity. This increase in automaticity likely allowed participants to focus more energy on reading comprehension (Laberge & Samuels, 1974). The heightened level of automaticity that resulted

from partaking in rapid word recognition activities, likely allowed the participants to attain higher levels of comprehension (Stone, Silliman, Ehren, & Apel, 2004).

Rate buildup activities allowed participants in this study to build reading fluency through being exposed to the same text multiple times while being timed. Taguchi, et al. (2012) implemented rate buildup activities in their study by requiring their participant, Naomi, to read and reread the same passages multiple times. On each of the readings she was timed. They found that her rate and her comprehension had increased by the end of the study. As Naomi's rate and comprehension increased, the researchers are confident that rate buildup activities played a role in developing the participants fluency, rate and comprehension, in this study.

Repeated reading activities have proven effective in previous studies like Cohen's (2011). He found that consistent implementation of repeated reading activities increased his students' reading rate and reading comprehension (Cohen). As these activities influence reading fluency in Cohen's study, the researchers of this study recognize that repeated reading activities likely had a positive effect on their participants' fluency development.

Class-paced reading activities and self-paced reading activities are very similar in that each activity is designed to encourage the reader to increase his or her reading rate. The studies that Breznitz (2006) cites in her book (Breznitz, 1987; Breznitz & Leiken, 2000; Leiken & Breznitz, 2001; Breznitz, DeMarco, Shammi, & Hakerem, 1994; Breznitz, DeMarco, Hakerem, 1993; Breznitz & Leiken, 2000) establish what is known as the "Acceleration Phenomenon." This phenomenon states that comprehension actually increases as rate increases. Results from Yen's (2012) study supported the "Acceleration Phenomenon" by showing that speed-reading actually positively influences reading comprehension. Because of the existence of the "Acceleration Phenomenon" the researchers of the present study credit a portion of their

participants' fluency development to the implementation of class-paced and self-paced reading activities.

The literature review in this thesis does not cite specific studies that implemented the comprehension strategies emphasized in the present study. However, as suggested by Schacter (2006), the researchers focused on graphic organizers, SQ3R, and thin and thick questions. Schacter states that these and other comprehension strategies explained in his book are "proven reading comprehension strategies" (p. iii). The researchers agree that these three comprehension strategies are effective and positively influenced the reading fluency development of the participants in the present study.

Although there was no control group, the researchers can say with confidence that reading fluency did increase among the participants after they had received consistent fluency instruction in the reading classroom. Therefore, reading teachers should make fluency instruction a priority in the classroom. As this study explains, this may be accomplished through implementing rate development activities and comprehension development strategies on a daily basis. As was discussed previously, rate development activities can benefit rate development as well as comprehension development. Each of the activities and strategies explained in this paper can potentially positively influence reading fluency. This study illuminates the benefits of consistency in fluency instruction. Although other factors may have contributed to the participants' fluency development, teachers were encouraged to implement reading fluency instruction daily. An overall increase in reading fluency was observed.

**Limitations**

This study contains limitations, which are important to note and to take into consideration for future studies of this kind. One main limitation of this study is the lack of a control group.

Without a control group, it is impossible to determine the fluency development that naturally occurred versus the fluency development that occurred because of the implementation of consistent fluency instruction. The researchers cannot be sure that consistent reading fluency instruction is the sole factor that caused fluency development in the participants.

Another limitation relates to the pretests and the posttests. The researchers considered passage length when determining the difficulty level of the reading passages, however they did not completely validate the level of difficulty of each reading passage before administering the tests. Because of this limitation, the researchers cannot be completely sure that the tests administered at the beginning and end of each semester were in fact the most appropriate tests for the participants.

These problems could have been identified and resolved through utilizing a Lexile analyzer to determine the true level of each pretest and posttest reading passage. Although this analysis was not carried out before beginning the study, the researchers did conduct a post-hoc analysis on each of the reading passages using a Lexile measure. The difficulty levels were then compared with the difficulty level of the texts used in each class. Table 12, Table 13, Table 14, and Table 15 show these comparisons.

**Table 12: Post-hoc Analysis of Pretest A Reading Passages**

| Level | Class Materials Lexile Measures | Pretest A Passage Title | Pretest A Passage Length | Pretest A Lexile Measure |
|---|---|---|---|---|
| Foundations A | 287L (average of 22 passages) | Second Life | 250 | 770L |
| Foundations B | 457L (average of 37 passages) | The Essential Drink | 257 | 950L |
| Foundations C | 817L (average of 13 passages) | Let's See What You Can Do | 348 | 870L |
| Academic Prep | 1181L (average of 25 passages) 853L Quest 1 Textbook | Animal Camouflage | 499 | 1110L |
| Academic A | 1192L (average of 22 passages) 1145L Quest 2 textbook | Defining Genius | 498 | 970L |
| Academic B | 1346L (average of 79 passages) 1182 Quest 3 textbook | Africa Today | 485 | 1030L |
| Academic C | 1181L (average of 25 passages) 1099L International Studies and Biology packets | Points of Origin | 1002 | Lexile measure not available |

**Table 13: Post-hoc Analysis of Pretest B Reading Passages**

| Level | Class Materials Lexile Measures | Pretest B Passage Title | Pretest B Passage Length | Pretest B Lexile Measure |
|---|---|---|---|---|
| Foundations A | 28L7 (average of 22 passages) | The Loch Ness Monster | 254 | 890L |
| Foundations B | 457L (average of 37 passages) | Fabulous Fungi | 247 | 1100L |
| Foundations C | 817L (average of 13 passages) 1181L (average of 25 passages) | A Vacation You'll Work For | 351 | 1060L |
| Academic Prep | 853L Quest 1 Textbook | The Science of Strange Experiences | 351 | 1210L |
| Academic A | 1192L (average of 22 passages) 1145L Quest 2 textbook | Into the Black Hole and Beyond | 508 | 1140L |
| Academic B | 1346L (average of 79 passages) 1182 Quest 3 textbook | Nelson Mandela and Democracy in South Africa | 505 | 1110L |
| Academic C | 1181L (average of 25 passages) 1099L International Studies and Biology packets | The Tomb of King Tut | 972 | 980L |

**Table 14: Post-hoc Analysis of Posttest A Reading Passages**

| Level | Class Materials Lexile Measures | Posttest A Passage Title | Posttest A Passage Length | Posttest A Lexile Measure |
|---|---|---|---|---|
| Foundations A | 28L7 (average of 22 passages) | The Essential Drink | 257 | 950L |
| Foundations B | 457L (average of 37 passages) | Let's See What You Can Do | 348 | 870L |
| Foundations C | 817L (average of 13 passages) | Animal Camouflage | 499 | 1110L |
| Academic Prep | 1181L (average of 25 passages) 853L Quest 1 Textbook | Defining Genius | 498 | 970L |
| Academic A | 1192L (average of 22 passages) 1145L Quest 2 textbook | Africa Today | 485 | 1030L |
| Academic B | 1346L (average of 79 passages) 1182 Quest 3 textbook | Greener Businesses | 500 | 1130L |
| Academic C | 1181L (average of 25 passages) 1099L International Studies and Biology packets | Points of Origin | 1003 | Lexile measure not available |

**Table 15: Post-hoc Analysis of Posttest B Reading Passages**

| Level | Class Materials Lexile Measures | Posttest B Passage Title | Posttest B Passage Length | Posttest B Lexile Measure |
|---|---|---|---|---|
| Foundations A | 28L7 (average of 22 passages) | Fabulous Fungi | 247 | 1100L |
| Foundations B | 457L (average of 37 passages) | A Vacation You'll Work For | 351 | 10060L |
| Foundations C | 817L (average of 13 passages) | The Science of Strange Experiences | 351 | 1210L |
| Academic Prep | 1181L (average of 25 passages) 853L Quest 1 Textbook | Into the Black Hole and Beyond | 508 | 1140L |
| Academic A | 1192L (average of 22 passages) 1145L Quest 2 textbook | Nelson Mandela and Democracy in South Africa | 505 | 1110L |
| Academic B | 1346L (average of 79 passages) 1182 Quest 3 textbook | The Tomb of King Tut | 972 | 980L |
| Academic C | 1181L (average of 25 passages 1099L International Studies and Biology packets | Shot Down Behind Enemy Lines | 995 | Lexile measure not available |

**Suggestions for Future Research**

For further research on this topic, the researchers could replicate the study while also including a control group. This, unfortunately, would require that a certain group of participants do not partake in consistent fluency instructions, thus forfeiting the potential fluency development that may result. However, the results of the study may prove to be more considerable.

The researchers could also analyze the path that readers take to reach fluency. For example, Figure 1 and Figure 2 have four quadrants. The majority of participants start out in quadrant 1, as we can see from analyzing the results of this study. However, where do participants go from there? The goal is to have all participants end up in quadrant 4 as fluent readers at their level. However, there are a variety of possible routes to quadrant 4. According to Figure 2, the average participant fell in quadrant 1 after completing the pretests. However, this does not imply that all of the participants started in quadrant 1. Some may have started in quadrant 2 or 3 or even 4. Analyzing the path that participants take throughout their journey toward fluency is one way of furthering the research on reading fluency.

Additionally, the researchers might look in more depth at the background of the participants. In particular, each participant's L1. It may be of interest to future researchers of a similar study to analyze how participants with a particular L1 compared to participants with a different L1 in terms of their reading rate and reading comprehension percentage. The researchers may draw some interesting conclusions regarding how the path to reading fluency in English differs depending on the L1 of the participant. The alphabet of the L1 could possible affect the path to fluency in English. The way text is read in the L1 versus how it is read in English could also be a factor that affects the path to fluency in English. Research in this area could greatly help reading teachers to better understand the difficulties that speakers of particular L1s face as they are learning to read fluently in English. Understanding these complications could result in development of more effective teaching methods that would successfully increase the English reading fluency of participants that may otherwise be hopelessly left behind.

In addition to these ideas for further research, another idea would be to analyze the effectiveness of each of the eight fluency activities and strategies that are referred to in this thesis.

Each activity has its own set of pros and cons. Each activity is effective in its own way. However, it would be interesting to analyze the activities and determine which one has the greatest effect on L2 reading fluency. This knowledge may help reading teachers know which activities are most effective. Knowing this would allow teachers to focus on those activities that are proven most effective in building reading fluency.

**Conclusion**

The previous suggestions and limitations are important to consider for future research in the field of L2 reading fluency. There are undoubtedly additional suggestions that would further the effectiveness of a future study as well as additional limitations that have been overlooked by the researchers. These suggestions and limitations do not undermine the efficacy or uniqueness of the study.

This study is different from previous studies on reading fluency because it does not solely focus on rate development or comprehension development. Through implementing specific reading rate development activities and reading comprehension strategies, this study is the first of its kind to combine both reading rate and reading comprehension into one reading fluency study. The researchers made an effort to implement a variety of both rate development activities and comprehension development strategies so that the participants could truly progress toward Anderson's (2008) standard of fluency, reading 200 wpm with 70% comprehension.

The purpose of the study was to answer the question, "What effect does consistent reading fluency instruction have on adult ESL readers in terms of their reading rate and reading comprehension scores?" This thesis begins by exploring previous research related to L2 reading fluency development. After examining previous studies on L2 reading fluency, the researchers explained the methods related to the present study. The results of the study were then presented

and explained. Finally, the results and the implications of the results were discussed. Limitations as well as suggestions for further research were then presented. The researchers conclude that the effect of consistent reading fluency instruction on ESL readers in terms of their reading rate and reading comprehension scores is positive. Consistent reading fluency instruction increases the reading rate and reading comprehension percentage of ESL students.

The researchers' hypothesis that daily implementation of reading fluency activities and strategies in the reading classroom would result in increased reading rate and increased reading comprehension is clearly confirmed through an analysis of the results. As was emphasized in the introduction to this thesis, this development of reading rate and reading comprehension is necessary not only because it promotes reading fluency. Fluency remains as the goal for all language learners. However, development of reading rate and reading comprehension also has the potential benefit of heightening a language learner's proficiency in all areas of the L2. This proficiency results from an increased level of self-confidence within the learner. With this amplified self-confidence and proficiency the learner is likely to develop a deeper passion for the L2 that will allow for his or her full potential to be reached.

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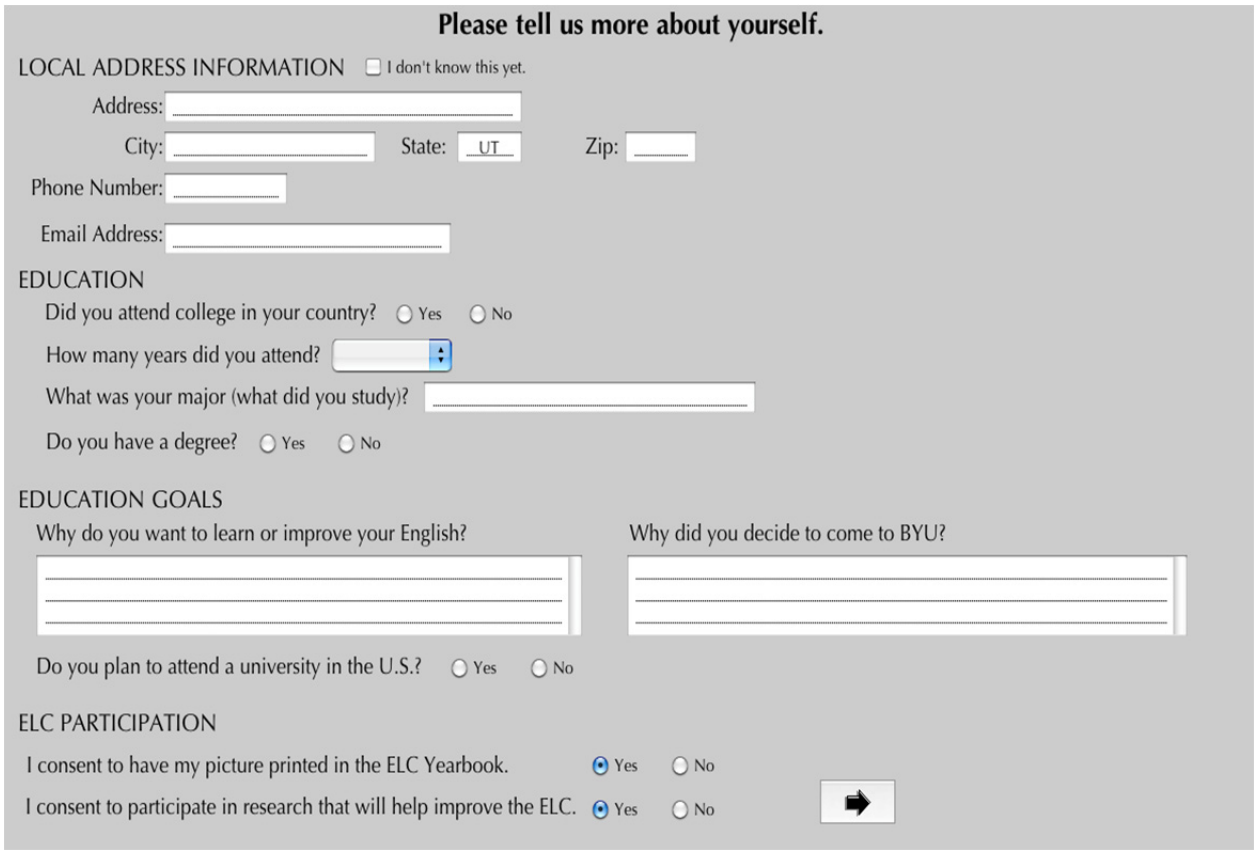
## Appendix A


Please tell us more about yourself.
LOCAL ADDRESS INFORMATION
I don't know this yet.
Address:
City:
State: UT
Zip:
Phone Number:
Email Address:
EDUCATION
Did you attend college in your country? Yes No
How many years did you attend?
What was your major (what did you study)?
Do you have a degree? Yes No
EDUCATION GOALS
Why do you want to learn or improve your English?
Why did you decide to come to BYU?
Do you plan to attend a university in the U.S.? Yes No
ELC PARTICIPATION
I consent to have my picture printed in the ELC Yearbook. Yes No
I consent to participate in research that will help improve the ELC. Yes No

## Appendix B

**Foundations A**
**Reading Fluency Diagnostic**

**Name _____**

### Second Life

Being online is the norm for many people today. Just think of all the new things we can now do online that we could not do a few years ago. Many students have their own websites on which they can post photos and write messages. They can make new friends online or even start an online business.

But now you can build a whole new life online as another person! You can even choose to be a boy or a girl, a man or a woman! You can choose a different job if you want. You may be a student in "real" life, but you can own a big company in SecondLife.com.

People build very different lives for themselves, with different names, nationalities, jobs, and lifestyles. And your life online can make you rich in "real" life. Anshe Chung is the first "person" to become a millionaire in Second Life. That's a millionaire in real U.S. dollars. Anshe Chung is really Ailin Graef. She has shopping malls in Second Life that are now worth over $1 million, and she can change that money and spend it in the real world!

Some people argue that they have a hard enough time with one life that creating a second one is not an option. What do you think? Have you ever considered creating a new life for yourself in Second Life? If so, what would choose for your profession? What type of life would you like to lead? If not, why not?

**Reading Time: _____**

**Foundations A**
**Reading Fluency Diagnostic**

## Comprehension Test

***Without looking back at the reading, circle the best answer for each item. Do not look back at the passage.***

1. The main idea of this passage is that
   a. a second life is better than real life.
   b. we can become rich in Second Life.
   c. Second Life offers new options online.
   d. we can buy shopping malls online.

2. The word ONLINE means
   a. walking on a line.
   b. on the Internet.
   c. doing what you should do.
   d. real life.

3. What is NOT mentioned in the passage as something you can do online?
   a. Write messages
   b. Start a business
   c. Find an apartment
   d. Make new friends

4. What is NOT true about life in Second Life?
   a. You can choose your gender.
   b. You can change your name.
   c. You can start a business.
   d. You can meet the people from Second Life in your real life.

5. From the passage, we can infer that most students
   a. stay at home on the weekend.
   b. can use computers.
   c. do homework.
   d. do housework.

6. Money made on the Second Life site
   a. must be returned.
   b. can be changed for real money.
   c. can't be changed for real money.
   d. must be spent only on the site.

7. The person Ailin Graef is
   a. Anshe Chung.
   b. an online character only.
   c. not a real person.
   d. really poor.

8. According to the passage, which of the following is NOT true about Second Life?
   a. You can be who you want to be in the game.
   b. You can make money.
   c. Adults can't enter Second Life.
   d. You can't quit the game.

**Comprehension Score: _____ / 8**

**Foundations B**
**Reading Fluency Diagnostic**

**Name _____**

## The Essential Drink

It's hard to imagine, but the human body is about 73 percent water. That makes getting enough daily water essential.

A person at rest loses about 40 ounces of water a day, but an active person can lose twice that amount. Water leaves the body in obvious ways, but did you know that when you breathe, water escapes in your breath? It even evaporates through your skin, especially in hot or dry weather. When you work hard and exercise, sweating causes you to lose much more water.

The body needs water for its organs to function properly and to flush out toxins you ingest in the food you eat and breathe in from polluted air. Because the body loses water all the time, you must be sure to replace it. You can drink at least 40 ounces of liquids each day, but you can also intake water without drinking a drop from a glass. Many foods contain a large amount of water, especially fruits and raw vegetables. At the same time, not all liquids are alike. Carbonated beverages such as soft drinks do not hydrate the body well. Water and fruit juices are the best source of hydration.

What happens when the body does not get enough water? There are several signs of dehydration, including low energy and dry eyes and mouth. If you wait until you feel thirsty, you may already be dehydrated. If you are fatigued, instead of taking a nap, try drinking a glass of water. Often, it's all you need to feel refreshed.

**Reading Time: _____**

**Foundations B**
**Reading Fluency Diagnostic**

## Comprehension Test

***Without looking back at the reading, circle the best answer for each item. Do not look back at the passage.***

1. The main idea of this passage is
   a. Dehydration can be dangerous to the human body.
   b. The best source of fluid for our bodies is carbonated drinks.
   c. Fruits and vegetables are a good source of water.
   d. The human body needs to get enough water every day.

2. The word DEHYDRATION is closest in meaning to
   a. health.
   b. too much water.
   c. lack of water.
   d. sickness.

3. According to the passage, an active person can lose
   a. 80 ounces of water a day.
   b. 20 ounces of water a day.
   c. less water through breathing.
   d. 80 ounces of water through resting.

4. According to the passage, what is NOT a good way to hydrate yourself?
   a. Eat fruits.
   b. Drink water.
   c. Drink orange juice.
   d. Drink carbonated drinks.

5. Which of these inferences can be made from the information in the passage?
   a. Drinking soft drinks is preferable to drinking water.
   b. Some liquids are better than others at hydrating you.
   c. All foods can hydrate you.
   d. Water is the only liquid that will hydrate you.

6. Which one of these is NOT mentioned in the passage as an effect of not getting enough water?
   a. Tiredness
   b. Lack of energy
   c. Dry mouth
   d. Bloodshot eyes

7. Why does the writer advise drinking water if you are sleepy?
   a. It's cheaper than going to the doctor.
   b. You may be tired because you are dehydrated.
   c. Nothing else will work.
   d. Sleeping is not good for you.

8. What is the essential drink referred to in the title of the passage?
    a. Fruit juice
    b. Diet Coke
    c. Water
    d. Milk

**Comprehension Score: ____ / 8**

**Foundations C**
**Reading Fluency Diagnostic**

**Name _____**

## Let's See What You Can Do

If you have spent time in school, you are probably familiar with academic paper-and-pencil tests. You walk into the classroom, tired after staying up late to memorize information. You are nervous because the test is your only opportunity to prove to your teacher that you have learned the material. You want a good grade.

Some educators believe that traditional tests are of limited value. These tests require students to just remember information. Another type of test evaluates students' ability to use what they have learned in class.

Authentic assessment tests real-world skills. For example, to get a driver's license, people have to actually drive a car. The driving instructor takes notes on how well they handle the car. Musicians are also familiar with authentic assessment. They give recitals to demonstrate their musical proficiency to the public.

Projects are another type of authentic assessment. Engineering students might be asked to design two boats. They design one that will float, as boats should, and one that will sink. The students need to create drawings of the two boats, make a list of the materials they will use, and then actually build the two boats. The final step is to place the boats in the water. This is when the students evaluate their designs and predictions. The advantage of a project like this is that students can demonstrate a wide variety of skills. They apply their knowledge to the type of task they will one day perform in the real world.

Interviews can also be a form of authentic assessment. In an interview, the instructor will talk with students individually. For example, in an English language class, students might be asked what advice they would give to someone who has very noisy neighbors. In order to answer, students must think about the situation. They must decide which grammatical forms could be used to express their ideas. Then they explain their ideas using pronunciation that the instructor can understand. Instead of filling in blanks in existing sentences, in an interview students must do what people usually do with language--talk about something!

**Reading Time: _____**

**Foundations C**
**Reading Fluency Diagnostic**

## Comprehension Test

***Without looking back at the reading, circle the best answer for each item. Do not look back at the passage.***

1. The main idea of this passage is that
   a. in order to get a drivers license you must be able to drive.
   b. authentic assessment is a better measure of learning than traditional tests.
   c. projects are a better authentic assessment than interviews.
   d. building boats is a good way to test engineers.

2. According to the passage,
   a. traditional testing is best.
   b. authentic assessment is a good way to test what students have memorized.
   c. authentic assessment tests practical ability.
   d. traditional testing tests practical ability.

3. According to the passage,
   a. testing a student's memory is a good way to test his knowledge.
   b. the best way to test a musician's ability is by using a written test.
   c. projects are not an effective testing method.
   d. interviews are a good way to test a student's ability to use a language.

4. The word *memorize* means
   a. read.
   b. write.
   c. remember.
   d. analyze.

5. Which of these inferences can be made from the information in the passage?
   a. The speaker approves of moves to change the testing system.
   b. Everyone is happy with traditional tests.
   c. All schools now use authentic assessment.
   d. The speaker thinks interviews are a poor way to test students' language skills.

6. Which of these is NOT mentioned in the passage as something that can be assessed authentically?
   a. Engineering
   b. Acting
   c. Driving
   d. Languages

7. What is an advantage of the projects mentioned in the passage?
   a. They test only mental ability.
   b. They aren't real assessments.
   c. They are easy to perform and grade.
   d. They allow students to apply what they have learned to tasks that are useful.

8. Which of the following is NOT an example of authentic assessment?
    a. A student must complete 10 math problems in five minutes.
    b. A student must choose the best way to invest $1,000.
    c. A student must develop a business plan for a new product.
    d. A student must create a monthly personal budget.

**Comprehension Score: ____ / 8**

**Academic Prep**
**Reading Fluency Diagnostic**

**Name _____**

## Animal Camouflage

Every species on the planet must fulfill its basic need to eat and avoid being eaten; otherwise, it will die out. Over millions of years, animals have avoided extinction by adapting to their environments in ways that help them find food and avoid being attacked by other animals. Camouflage allows many animals to use their natural abilities to hide from prey and attackers alike. It works by either allowing the animal to blend in with its background or by making the animal look like another object.

For most animals, blending in with their surroundings is the most effective way to hide. An animal's natural environment is often the basis for its camouflage. For example, squirrels are brown, which makes them difficult to see when they are up in the trees, where they live. Sharks and dolphins are blue-gray, which makes them blend in with their watery habitat.

However, some animals can change color. Some animals produce pigments that appear as different colors. Another way is through physical makeup. For example, a polar bear looks white, but, in fact, its skin is black. It blends in with its icy surroundings because its hairs are translucent, or clear, and bend light, creating a white appearance.

Because their surroundings can change, leaving them vulnerable, some animals have developed ways to change their coloring depending on their environment. For example, during the spring and summer, an animal's habitat may be green and brown, whereas in the winter, everything may be white with snow. Many birds and mammals produce different colored feathers or fur according to the season. Seasonal shifts in temperature or length of days are factors that will set off a change in an animal's hormones that cause it to produce color-changing biochromes.

Fur and feathers are dead cells, and a bird or mammal must produce a whole new coat from these cells to change colors. The Arctic fox, for example, has a dark coat during the summer to match the dirt in its environment. In the fall, however, it sheds its dark coat and grows a white one to match the winter snow.

Some animals can disguise themselves with different colors and patterns in order to provide the most protection. One kind of moth has a pattern on its wings that resembles a snake's head, which scares away many attackers. Some nonpoisonous snakes have developed the same colorations as poisonous ones, which scares away potential threats.

Still other animals hide not by blending in but by taking on the appearance of something that is uninteresting to predators. For example, the walking stick, an insect that looks like an ordinary stick, can easily be seen, but predators think it is just a stick and, therefore, ignore it.

Animals all over the world have evolved different means of protecting themselves and hiding from their prey through camouflage. This provides the type of protection they need to survive. Survival allows for the animal to continue to avoid extinction and to thrive in the environment.

**Reading Time: _____**

**Academic Prep**
**Reading Fluency Diagnostic**

## Comprehension Test

***Without looking back at the reading, circle the best answer for each item. Do not look back at the passage.***

1. The main idea of this passage is that
   a. animals can change in order to protect themselves.
   b. moths have the best form of camouflage.
   c. furs and feathers are dead cells and thus protect animals from harm.
   d. blending into your environment is the best protection.

2. According to the passage, how have animals survived over time?
   a. By being hunted
   b. By attacking other animals
   c. By feeding their young
   d. By blending in with their environment

3. What is NOT mentioned in the passage as an example of camouflage?
   a. Looking like another object
   b. Blending into the background
   c. Seasonal shifts in temperature
   d. Changing color

4. According to the passage, which of the following is the most effective way for most animals to hide?
   a. Looking like another object
   b. Blending in with the surroundings
   c. Staying still
   d. Producing a new coat

5. The Arctic fox is an example of an animal that
   a. sheds its coat.
   b. sheds its skin.
   c. takes on the appearance of something else.
   d. changes its pattern.

6. What is the author inferring in the last sentence?
   a. Good camouflage protects animals.
   b. Good camouflage allows animals not to hunt.
   c. Good camouflage can make hunting easier.
   d. Good camouflage protects prey.

7. What is mentioned as a weapon animals can use?
   a. Strength
   b. Claws
   c. Poison
   d. Horns

8. Which of the following sentences best expresses the essential information in the sentence below:

*Still other animals hide not by blending in but by taking on the appearance of something that is uninteresting to predators.*

a. Some animals attract predators by looking like other objects.
b. Some animals hide by resembling objects hunters don't want to eat.
c. Some animals don't blend in.
d. Some animals blend in by looking like other animals.

**Comprehension Score: ____ / 8**

**Academic A**
**Reading Fluency Diagnostic**

**Name _____**

## Defining Genius

The workings of the brain have long been a thing of mystery to scientists. It is only in the last twenty years that we are beginning to make inroads into understanding the dynamics of different parts of the brain. The more we discover, the more we understand about how the operations of the different parts of the brain. The brain controls how we move, think, feel, see, crave, and interpret the stimuli around us. Our greater understanding of illnesses affecting the brain is leading to a better understanding and treatment of brain-related illnesses such as depression and bipolar disorder.

This research is helping us to define what a genius is. It is also leading us to understand much more about savant syndrome. Savant syndrome is a condition first diagnosed in 1877 by British physician J Langdon Down. Down's research was a novelty at the time. His research was centered on developmentally disabled individuals at Earlswood Asylum. Down had witnessed some patients performing amazing mental tasks. These tasks were at odds with their general mental abilities. This type of patient is sometimes referred to as an autistic savant. This is a person who suffers from autism yet displays strong mental abilities in one area of specialization.

Autistic people tend to dislike being held or touched. They have poorly developed communication skills. They avoid eye contact. They are prone to performing unusual repetitive behaviors such as head banging or rocking back and forth.

Have you ever met someone who is not very sociable yet they can do amazing things? Savant syndrome generates great attention, as it is still not fully understood. However, the condition is rare. It afflicts an estimated one out of every 2,000 developmentally disabled individuals. A larger percentage of men suffer from this syndrome.

Savants are gifted individuals endowed with an ability related to memory. In fact, their memory capacity is astounding. A talent in solving seemingly impossible mathematical calculations is also common. Some savants have amazing capabilities in music and art. Some can play a complete symphony on the piano having heard it only once. Others can make incredibly lifelike drawings even from a very young age.

Savants use their skills robotically and are not able to perform basic related functions. For example, a savant could recite the complete works of Shakespeare, yet not be able to explain any of the stories. A musical savant typically won't be able to read music. A mathematical savant won't be able to make a simple purchase at a supermarket. Their talents seem to use a part of their brain as if it is bypassing the rest.

Another criterion for diagnosing savant syndrome is that these abilities appear suddenly and are fully developed early in life. A 3-year-old girl, for example, will display the ability to create professional artistic drawings having never practiced before, and this talent will not improve with age. It is already fully developed. However, in some cases, these amazing abilities disappear as suddenly as they appeared.

**Reading Time: _____**

**Academic A**
**Reading Fluency Diagnostic**

## Comprehension Test

***Without looking back at the reading, circle the best answer for each item.***

1. According to the passage, which of the following statements is true?
   a. Scientists finally discovered how the brain works 20 years ago.
   b. In the last 20 years, scientists have made many discoveries about the brain.
   c. It has taken 20 years to study the brain.
   d. J Langdon Down spent 20 years studying savant syndrome.

2. When was savant syndrome discovered?
   a. When patients' repetitive behaviors were noticed.
   b. When researchers studied volunteers.
   c. When patients in a mental hospital were observed with skills unexpected of their mental capacity.
   d. When a doctor observed that his dementia patients suddenly had new abilities that they had not previously not shown.

3. According to the passage, what does research on savant syndrome seem to indicate?
   a. Special skills are limited to math.
   b. There is a cure for autism.
   c. There is a cure for dementia.
   d. Everyone is theoretically capable of acts of genius.

4. The phrase *at odds with* is closest in meaning to
   a. strange.
   b. similar to.
   c. harmful to.
   d. contrary to.

5. What is NOT mentioned in the passage as a symptom of autism?
   a. Excellent motor skills
   b. Repetitive behavior
   c. Aversion to being touched
   d. Avoidance of looking people in the eye

6. Savant syndrome is associated with
   a. motor function.
   b. speech.
   c. memory.
   d. observation.

7. Which of the following statements is NOT mentioned as a hypothesis about what is happening in the brain of autistic savants?
   a. There is something wrong with the right side of the brain.
   b. Unrelated multiple intelligences are being displaying.
   c. There is something wrong with the left side of the brain.
   d. The genes for retardation and special ability are both inherited.

8. What is NOT mentioned in the passage as a typical skill of a savant?
   a. Memorizing the telephone directory.
   b. Acting in a play.
   c. Playing music perfectly by ear.
   d. Solving challenging math problems.

**Comprehension Score: ____ / 8**

**Academic B**
**Reading Fluency Diagnostic**

**Name** _____

## Africa Today

Newspaper and television reports around the world show Africa as a continent with many problems. They focus on the wars, the starving children, the terrible diseases, and the natural disasters. Other, more positive aspects of life in Africa are rarely shown.

There are, indeed, serious problems in many parts of Africa. The biggest problem facing Africans today is the continuing threat of wars. These wars are in part due to historic competition among tribes. However, in the past, the fighting was local and small scale. In recent years, it has become far more violent and destructive. This is partly because of the destructive power of modern weapons. It is also because the situation has changed dramatically.

Starting in the sixteenth century, European powers began to move into Africa. They took African people to sell as slaves in North and South America. They also took any valuable resources they could find, such as ivory, gold, or diamonds. In the nineteenth century, the European rulers divided up the continent into countries. They did not understand much about African tribal traditions, and so the borders of these countries did not match the traditional borders of tribal lands.

When the countries of Africa became independent in the twentieth century, there were often several different tribes in a country, and each tribe wanted to rule. The result was conflict and civil war. In many countries, the civil wars have been going on for decades as different groups fight for control of the government. Governing means having not only power, but also having access to wealth—and one of the few ways out of a life of poverty. In recent years, it has also meant having control over international aid and, therefore, access to food in times of starvation.

Many of the problems facing Africa today have been worsened by this fighting over control of the government. Countries that are at war have little time or resources to deal with poverty, hunger, or disease. They are unable to take any measures for a better future, and so many countries are becoming poorer and their problems are growing. For example, HIV, the virus that causes AIDS, has spread rapidly in Africa because of the lack of education and health care, as well as the lack of medical supplies. Other diseases, many preventable, have spread quickly for the same reasons.

In spite of these problems, however, many Africans are hopeful about their future. Ordinary people in many countries are joining together to change and improve their lives. Young and talented Africans are looking out to the rest of the world. They are experimenting with ways to use the Internet and other new technology to try to solve some of their problems. In the arts, and especially in music, many talented performers are showing the world what it means to be African. In this unit, the passages will focus on both the continuing problems facing Africa today and some of the interesting and positive developments there.

(Source: Mikulecky, B., & Jeffries, L. [2004]. *More reading power* (pp. 211-212). White Plains, NY: Longman.)

**Reading time:** _____

**Academic B**
**Reading Fluency Diagnostic**

## Comprehension Test

***Without looking back at the reading, circle the best answer for each item.***

1. This passage is about

   a. the diseases in Africa.
   b. independence in Africa.
   c. the situation in Africa today.
   d. newspaper reports about Africa.

2. According to this passage, the main factor preventing a solution to Africa's problems is
   a. disease.
   b. poverty.
   c. war.
   d. international aid.

3. Wars are more violent in the twenty-first century partly because

   a. modern weapons are more destructive.
   b. of the lack of education and health care.
   c. there has been an increase in natural disasters.
   d. valuable natural resources are lacking.

4. In the past, European powers

   a. fought over control of the government.
   b. tried to help the Africans economically.
   c. could not find any valuable resources in Africa.
   d. did not understand African traditions.

5. In many countries, different groups are fighting for control over the government so they can

   a. control the spread of the HIV virus.
   b. free their country from European rulers.
   c. change the borders of their country.
   d. become richer and control food supplies.

6. You can infer from this passage that international aid

   a. can help prevent fighting between groups.
   b. may sometimes be a cause of fighting.
   c. might not be helpful in preventing AIDS.
   d. usually has no effect on the fighting.

7. According to this passage, there is a close connection between

   a. access to wealth and level of education.
   b. international aid and the spread of disease.
   c. war and the spread of the HIV virus.
   d. African tribal traditions and poverty.

8. Many young people in Africa today are

   a. hopeful in spite of their problems.
   b. talented politicians and leaders.
   c. hoping to move to other countries.
   d. not interested in their traditions.

**Comprehension Score: ___ / 8**

**Academic C**
**Reading Fluency Diagnostic**

**Name _____**

## Points of Origin
## By Michael Omert

Throughout the history of mankind there has always been room for those tamed animals we now consider pets. The great pet in history and legend is, of course, the cat. There was a cat cult among the Egyptians of the late dynasties, and its best-known goddess was named Bastet. The Romans had *Felis catus* to help with the mousing and to play with around the hearth. (The designation *Felis domesticus is* modern scientific notation, not a Roman one.) This pet appears in classical Roman art, in literature, and on coins. There is even a Latin word, *murmare,* meaning "to purr."

The Italian poet Petrarch is remembered by some fugitive lines in Latin attributed to his cat, who seems as beloved as his human heartthrob, Laura. The feline narrator of the verse suggests that he was rewarded by Petrarch for his fidelity even as Laura was for her grace and beauty: "She first inspired the poet's lay,/But since I drove the mice away,/His love repaid my duty."

The cat has nowhere been the subject of more fascination and respect than in Britain. Indeed, the braininess of British cats is attested by a letter to the respected journal, *Notes and Queries,* in 1868:

> We were talking about the sagacity shown by some animals, when I mentioned the story which I think Archbishop Whately tells in some of his writings, of his cat ringing the doorbell. This anecdote brought out a still better one from my neighbor, who had come in to see me for a chat. He said that when he was about 25 years of age, there was belonging to his house a certain cat which up to that time had not attracted notice for any particular sagacity. But the pantry window of the old-fashioned house was found to be repeatedly broken. Time after time the broken square—for one only was broken at a time—was repaired. At length my friend, growing tired of mending, made up his mind to have a board nailed over the lower row of the window-panes. Not very long after this precaution had been taken, being awake one night, he heard in his bedroom, which was close by, several distinct taps, as of a stone, upon glass. Getting out of bed, and looking down from the window, he saw then and there his cat resting with her hind feet upon the window-sill, her left paw clinging to the top of the new board, and with her other paw, in which she held a pebble, she was tapping the glass, in order no doubt to break it. He shouted out, and the cat jumped down, dropping the pebble—about the size of a marble—which in the morning he picked up.

But for all the respect they have inspired, cats have also been cruelly treated in many ages. The municipal records of Colchester, England, detail the 1651 trial of William Beard, who was alleged to have cut off the tail of Tom Burgis's cat. (For their part, the Burgis family retaliated by either poisoning or bewitching their pet's tormentor.)

Medieval students are known to have gambled with cats. As a result, medieval schools usually

forbade the keeping of pets of any kind, but to little apparent avail. Students at the University of Paris in the 13th century are known to have used stray cats to play dice by balancing the cubes on their paws until they flicked them off. Winning cats were fed; losers had their skins sold.

The folklore associated with dogs, like that of cats, is rich and varied. A belief in East Anglia held that if a dog turned around three times, a stranger would call. A person should never handle children's teeth that were accidentally knocked out: otherwise, he himself would grow dog's teeth. These superstitions were current in the 19th century.

The reputation for faithfulness attached to dogs gave rise to their being a symbol of fidelity and to their being selected to appear on tomb effigies with ladies and knights of great stature. In one celebrated case, a dog was buried along with the body of a 13th-century bishop. A liturgical reason for this is obvious. As the shepherd of his flock, a bishop has a fit companion in the dog.

As for the "pet" saints of the medieval Christians, their stories are as memorable as they are charming. For example, St. Dominic is symbolized by a dog (at his birth his mother dreamt she had brought forth a whelp with a torch in its mouth), and fittingly founded the religious order called the Dominicans (from the Latin, *Domini canes,* "dogs of the Lord").

Although Aristotle flatly states that fish are the only creatures that cannot be tamed, a cult of St. Anthony of Padua (1195—1231) seems to give the lie to that assertion. The legend records that, at a time when a group of heretics refused to be moved by his preaching, he turned his voice to the shore of the Adriatic and addressed the multitude of fishes, which obliged him and arranged themselves neatly according to their species. When the good saint pointed out that God had spared them alone from the destruction of the deluge, and that they were also insensible to the vicissitudes of the weather and seasons that attack the world above water, "the fish, as though they had been endowed with reason, bowed down their heads with all the marks of a profound humility and devotion, moving their bodies up and down with a kind of fondness." Such was the tale presented to Padua tourists in 1705, when the English essayist Joseph Addison recorded his travels in Italy.

A similar legend is attached to the medieval lore of St. Patrick, on whose feast day the fish were expected to rise from the sea and parade before his altar. St. Patrick might well have sent the snakes away, as every true Irishman knows, but to my mind bringing the fish back was a much bigger feat.

(Source: Fry, E. B. [2000]. *Reading drills: Advanced level* (pp. 146-148). Lincolnwood, IL: Jamestown Publishers.)

**Reading Time: _____**

**Academic C**
**Reading Fluency Diagnostic**

## Comprehension Test

***Without looking back at the reading, circle the best answer for each item.***

1. The great pet in history and legend is the
   a. dog.
   b. pig.
   c. cat.
   d. rabbit.
2. The Latin word *murmare* means
   a. to purr.
   b. mother cat.
   c. to scratch.
   d. to meow.
3. The Italian poet Petrarch wrote a poem that he attributed to
   a. Aristotle.
   b. his love, Laura.
   c. his cat.
   d. his dog.
4. Which country shows special fascination and the most respect for cats?
   a. Ireland
   b. Italy
   c. Scotland
   d. Britain

5. An article published in 1868 described
   a. a poem written by a cat.
   b. a cat that was poisoned.
   c. the Egyptian cat cult.
   d. a cat who broke windows with a stone.

6. In the 1651 trial in Colchester, England, William Beard was alleged to have
   a. stolen a horse.
   b. cut off a cat's tail
   c. poisoned a cat.
   d. starved a dog.

7. What did some medieval students do with cats?
   a. gambled with them
   b. used them to keep mice away
   c. arranged for cat fights
   d. buried them alive

8. A superstition in East Anglia held that if a dog turned around three times its owner would
   a. grow dog's teeth.
   b. be called on by a stranger.
   c. have three years of bad luck.
   d. have three years of good luck.

9. Which creature did Aristotle flatly state could not be tamed?
   a. the cat
   b. the dog
   c. the fish
   d. the bird

10. According to the selection, every true Irishman knows that Saint Patrick
    a. sent the snakes out of Ireland.
    b. founded the Dominican religious order.
    c. gave Ireland its name.
    d. is the patron saint of fishermen

**Foundations A**
**Reading Fluency Diagnostic, Form B**

Name _____

Teacher _____

## The Loch Ness Monster

The story of the Loch Ness Monster is very well known in Scotland around the lake in Loch Ness. Many people say they have seen this kind of swimming dinosaur that many believe lives in the lake. The first sighting of this so-called monster was in 1933. Detailed descriptions of the monster change, but one thing they all have in common, the monster is large with a very long neck.

Most people do not believe the stories at all. No one has ever taken a good photograph of the monster, and scientists with high-tech equipment have found nothing.

Recently, a tourist group visiting Loch Ness, believe they saw the monster. A group of 15 of them were by the lake when they heard a noise in the water. They stood up to find out what the noise was, and they saw it there in the water--the Loch Ness Monster--exactly as people had described it. It had a long thin neck and a very small head. At first some in the group wanted to scream and run away, but that would frighten the monster, so they just stood there and watched it. It looked at them for about half a minute before it slipped silently back under the water.

Now they know it is real. The entire group saw the same thing. Although they did not take a photo, they are confident of what they saw. Like so many before them, they just did not think about it because they were so surprised.

**Reading Time: _____**

How difficult was this reading for you? (Circle the number that best represents your answer.)

| 1 | 2 | 3 | 4 | 5 | 6 |
|---|---|---|---|---|---|
| Very easy | | Just right for me | | | Very difficult |

**Foundations A**
**Reading Fluency Diagnostic, Form B**

## Comprehension Test

***Without looking back at the reading, circle the best answer for each item. Do not look back at the passage.***

1. The Loch Ness Monster looks like
   a. a snake.
   b. a fish.
   c. a dinosaur.
   d. a giraffe

2. The Loch Ness Monster lives
   a. in the sea.
   b. in a lake.
   c. on a mountain.
   d. in the Pacific Ocean.

3. Which statement from the reading is true?
   a. There are many good photographs of the Loch Ness Monster.
   b. There is only one photograph of the monster.
   c. It is easiest to photograph the monster in the summer.
   d. No one has ever taken a good photo of the monster.

4. The existence of the Loch Ness Monster has
   a. never been proven by scientists.
   b. been proven by scientists.
   c. never been believed.
   d. caused many people to move away from the lake.

5. Many people
   a. want to keep the monster safe.
   b. try to kill the monster.
   c. say they have seen the monster.
   d. have taken photos of the monster.

6. Why didn't the group of tourists scream when they saw the monster?
   a. They were too frightened.
   b. They knew no one would hear them.
   c. They were not afraid.
   d. They didn't want the monster to swim away.

7. Why didn't the group of tourists take a photograph?
   a. They didn't want to frighten the monster.
   b. They were so surprised they forgot to.
   c. They didn't have a camera.
   d. They didn't need to take a photograph.

8. The first sighting of the monster was in
    a. the 1700s.
    b. 1933.
    c. 2001.
    d. 5 years ago.

**Comprehension Score: ____ / 8**

How difficult were the comprehension questions for you? (Circle the number that best represents your answer.)

| 1 | 2 | 3 | 4 | 5 | 6 |
|---|---|---|---|---|---|
| Very easy | | Just right for me | | | Very difficult |

**Foundations B**
**Reading Fluency Diagnostic, Form B**

Name_____

Teacher _____

## Fabulous Fungi

Different types of fungi are often used in cooking--mushrooms are mixed into pasta and soups, mold is used to make cheeses, and yeast is used in making bread --but they can also save lives. Some of the most valuable medicines in the world are derived from fungi, including penicillin, which helps fight disease and infection in the body. Many medicines for allergies are also made from fungi.

Doctors in the Far East have known for centuries that certain plants and fungi are beneficial in the treatment of illnesses. In the West, however, fungi have been seriously studied for their healing effects only for the last 70 years.

How did a common mold that was thought to be bad become an important medicine? In 1928 in a hospital laboratory, Alexander Fleming was studying the flu virus, and by mistake, penicillin was created. Fleming won the Nobel Prize for his breakthrough. It was one of the greatest medical discoveries of the century. Penicillin and other medicines derived from molds and fungi are now indispensable in the treatment of viruses and such diseases as cancer.

Can people treat their own illnesses by eating pizza with mushrooms? Absolutely not! In fact, some kinds of wild mushrooms are poisonous. Specific types of yeast and fungi must be grown by scientists in a laboratory in order for them to work as medicines. So, buy your mushrooms at a supermarket and enjoy them on your pizza, but let the doctors make medicine.

**Reading Time:_____**

How difficult was the reading for you? (Circle the number that best represents your answer."

| 1 | 2 | 3 | 4 | 5 | 6 |
|---|---|---|---|---|---|
| Very easy | | Just right for me | | | Very difficult |

**Foundations B**
**Reading Fluency Diagnostic, Form B**

## Comprehension Test

***Without looking at the reading, circle the best answer for each item. Do not look back at the passage.***

1. Why was the discovery of penicillin so important?
   a. It led to many deaths.
   b. It led to medicines that treat many diseases.
   c. It won Fleming the Nobel Prize.
   d. It was an accident.

2. What food is NOT mentioned in the passage as containing fungi or mold?
   a. Cheese
   b. Pasta
   c. Bread
   d. Butter

3. Doctors in the Far East have known for a long time that
   a. plants and fungi are not beneficial.
   b. plants and fungi are beneficial.
   c. penicillin comes from Asia.
   d. most diseases cannot be cured from mushrooms.

4. In the United States, fungi have been studied for their healing effects for the last
   a. 200 years.
   b. 20 years.
   c. 70 years.
   d. 10 years.

5. In the phrase, "medicines derived from molds and fungi are now indispensable in the treatment of viruses," the word INDESPENSIBLE means
   a. given out.
   b. valuable.
   c. forgotten.
   d. useless.

6. What is NOT mentioned as something fungi is used to treat?
   a. Viruses
   b. Cancer
   c. Bacteria
   d. Allergies

7. Why is it a bad idea to eat wild mushrooms?
   a. Some mushrooms are poisonous.
   b. It is against the law.
   c. There are no wild mushrooms.
   d. They are very unhealthy.

8. Which statement is NOT true?
   a. Penicillin was one of the greatest medical discoveries.
   b. Penicillin was created in a laboratory.
   c. Penicillin was created by Alexander Fleming.
   d. Penicillin was planned and created carefully.

**Comprehension score: _____ / 8**

How difficult were the comprehension questions for you? (Circle the number that best represents your answer.)

| 1 | 2 | 3 | 4 | 5 | 6 |
|---|---|---|---|---|---|
| Very easy | | Just right for me | | | Very difficult |

**Foundations C**
**Reading Fluency Diagnostic, Form B**

Name_____

## A Vacation You'll Work For

For most people, traveling is relaxing, educational, and fun. For some, it is also an opportunity to give something to others. Volunteer vacationing, or traveling as a worker-learner, is a mix of adventure travel and cultural immersion. The primary purpose is to use your skills to benefit others and the world around you as you learn about other people and places.

This type of volunteering is open to almost anyone. There are usually no language requirements or professional prerequisites, and training is provided. Contributors are of all ages and backgrounds. However, volunteers must have good health, a sense of adventure, and be willing to try new things.

Many companies organize these types of vacations. Volunteers can choose projects close to home, such as clearing nearby hiking trails, or projects in other countries, such as aiding in the protection of coral reefs off the coast of Fiji or studying the environment near Hong Kong to learn how to preserve nearby wetlands. Many people choose to work on projects in locations they would not ordinarily visit on their own.

An assignment can last from a week to several months. Projects range from teaching and providing health care to building community structures, helping to plan businesses, and setting up libraries. There are also ecological projects, such as the ones mentioned above, in which the environment is the central focus.

Volunteers help people even as they benefit from the trips themselves. They not only get the satisfaction of helping others but also have the opportunity to learn. Some volunteers stay in community centers and private homes, making interaction with local people inevitable.

Usually, volunteers pay a fee for the privilege of participating in a program. Often, housing and meals are included, but transportation to and from the project is not.

Working while traveling is not for everyone. Lounging on a beach with a book or camping in the mountains may be the kind of trip you need to get away from the stress of work or school. However, if you have the inclination, a volunteer vacation may be the most rewarding experience of your life.

**Reading Time:_____**

How difficult was the reading for you? (Circle the number that best represents your answer."

| 1 | 2 | 3 | 4 | 5 | 6 |
|---|---|---|---|---|---|
| Very easy | | Just right for me | | | Very difficult |

**Foundations C**
**Reading Fluency Diagnostic, Form B**

**Comprehension Test**

***Without looking at the reading, circle the best answer for each item. Do not look back at the passage.***

1. According to the passage, people who volunteer must
   a. be young.
   b. have experience traveling to foreign countries.
   c. be willing to try things that are different.
   d. have a particular set of skills.

2. Volunteer vacationing is
   a. going on vacations in place of others
   b. traveling as a worker-learner
   c. the same as any other vacationing
   d. very expensive

3. What is the primary purpose of volunteer vacationing?
   a. Learn a new language.
   b. Take a break from work or school.
   c. See the world.
   d. Use your skills to benefit others.

4. How long are the volunteers' assignments?
   a. One year.
   b. Two years.
   c. From a week to several months.
   d. Less than one week.

5. According to the passage, which is NOT an example of a volunteer vacationing project?
   a. teaching
   b. providing healthcare
   c. clearing trails
   d. rock climbing

6. How can volunteers learn about the people and culture of the country they visit?
   a. Stay in a community center or someone's home.
   b. Buy a guidebook.
   c. Set up a library.
   d. Travel alone.

7. Which of these statements is NOT true?
   a. Many companies organize these types of vacations.
   b. Transportation to and from the project is always paid for by the tour operator.
   c. Most people can do volunteer vacationing.
   d. Volunteer vacationing can be very rewarding.

8. The kind of person who would NOT like this kind of traveling is
   a. a university graduate.
   b. someone looking to increase their knowledge.
   c. someone who just wants to relax.
   d. someone wanting to learn about other cultures.

**Comprehension score: _____ / 8**

How difficult were the comprehension questions for you? (Circle the number that best represents your answer.)

| 1 | 2 | 3 | 4 | 5 | 6 |
|---|---|---|---|---|---|
| Very easy | | Just right for me | | | Very difficult |

**Academic Prep**
**Reading Fluency Diagnostic, Form B**

Name _____

Teacher _____

## The Science of Strange Experiences

Throughout the ages, people have claimed to have been abducted by aliens or had visions of a white light at the end of a tunnel when they thought they were about to die. In the early 20th century, such experiences would have been attributed to supernatural forces. Today, however, the modern age prides itself on rational explanations for even strange experience. Science has allowed us to understand our world by demystifying the things that occur from time to time.

For example, people who have had near-death experiences have claimed to see visions of a white light at the end of the tunnel and felt a great calm and peace descend upon them. Most interpreted it as their personal God calling them to a higher spiritual realm.

It was clear that each person would interpret the light and tunnel according to their own belief system, so scientists set out to find a scientific reason why people of different races, cultures, and religions had similar visions. They investigated this intriguing experience by blindfolding people and electrically stimulating parts of their brain. Their descriptions of the light were similar to those of the people who had had a near-death experience. Scientists concluded that the vision seen in near-death experiences was the body's response to a traumatic event (death itself) and not heaven, God, or a higher spiritual realm.

Another strange experience that some have claimed to have had is alien abduction. Again, science has partially explained this experience. Scientists have hypnotized people, fed them false information, and then questioned them afterwards on what they remember. Test subjects often reported the false information as things they remembered from their past. This experiment proved that memories can be implanted, and those claiming to be captured by aliens could have actually been recalling dreams rather than actual memories.

As technology advances, science continues to find rational answers for the intriguing experiences that happen to us. However, science is ever changing, New information is being added everyday with each new study. It is clear that science will always serve to remind us of how little we actually know.

**Reading time: _____**

How difficult was this reading for you? (Circle the number that best represents your answer.)

| 1 | 2 | 3 | 4 | 5 | 6 |
|---|---|---|---|---|---|
| Very easy | | Just right for me | | | Very difficult |

**Academic Prep**
**Reading Fluency Diagnostic, Form B**

## Comprehension Test

***Without looking back at the reading, circle the best answer for each item. Do not look back at the passage.***

1. What two experiences mentioned in the passage were attributed to supernatural forces in the early 20th century?
   a. the birth of children
   b. alien abductions and near death experiences
   c. the northern lights
   d. earthquakes and other natural disasters

2. The word SUPERNATURAL is closet in meaning to
   a. earthly
   b. mysterious
   c. funny
   d. ordinary

3. What did scientists NOT do to explain alien abduction experiences?
   a. Hypnotize people
   b. Gave them false information
   c. Shined a light on their face.
   d. Questioned them afterwards

4. The author feels that
   a. science will eventually be able to explain most unusual experiences.
   b. we really do not know much and cannot explain everything.
   c. aliens definitely exist and they can use science to prove it.
   d. God doesn't exist and religion cannot explain unusual experiences.

5. From the passage we can infer that
   a. science will one day explain experiences we don't understand right now.
   b. aliens exist and can provide important information in helping us understand science.
   c. God does not exist and science is able to prove it.
   d. science cannot explain everything even though some would like it to.

6. According to the passage, people who undergo a near death experience
   a. do not feel calm or peaceful.
   b. see different things depending on where they are from.
   c. feel like they are in a dream.
   d. see visions of a white light at the end of a tunnel.

7. Scientists found that
   a. memories can be implanted.
   b. many people have actually been abducted by aliens.
   c. people often dream of aliens.
   d. it is impossible to be abducted by aliens.

8. Create a summary of the passage by choosing three of the following sentences:
    1. Scientific experiments have explained previously unexplained experiences.
    2. We will learn more as further scientific studies are conducted.
    3. Alien abduction can be explained by magnets.
    4. Before we had science to explain our experiences, we believed in supernatural forces, but today's knowledge demystifies these beliefs.
    5. The white light seen during near-death experiences is explained by stimulation of certain parts of the brain.
    6. Hypnosis can cause false memories.

    a. 1, 2, 3
    b. 4, 6, 2
    c. 4, 1, 2
    d. 1, 5, 6

**Comprehension Score: ____ / 8**

How difficult were the comprehension questions for you? (Circle the number that best represents your answer.)

| 1 | 2 | 3 | 4 | 5 | 6 |
|---|---|---|---|---|---|
| Very easy | | Just right for me | | | Very difficult |

**Academic A**
**Reading Fluency Diagnostic, Form B**

Name _____

Teacher _____

## Into the Black Hole and Beyond

We have all seen thrilling science-fiction movies in which astronauts dispatched into space plunge into black holes, never to be seen again, or they emerge from black holes, or even travel through time! When these time-traveling astronauts arrive home, they are still young but quickly figure out that hundreds of years have gone by on Earth. In reality, no manned spacecraft has ever approached a black hole. They are far too distant to be a real danger. While science has nudged a bit closer to understanding black holes, they remain mysterious enough to tease and inspire movie producers and scientists alike.

A black hole is the remnant of a huge star that dies. A star is made of gas, and because it is so massive, there is a powerful gravitational field at its core that is constantly working to collapse it. The balance between the gravitational pull of enormous mass and the force of interior explosions defines the size of a star.

When all the gases burn up, these reactions at the star's core stop, making the star's existence unsustainable. At the same time, the star's gravity pulls material toward its core, collapsing it. As the dying star tips the balance between reaction and collapse and the core begins compressing, it heats up. Eventually, the heat creates an enormous explosion in which the star's radiation is expelled into space. This does not leave the star dormant. What remains is its core. The gravity created by this gigantic core is so great that nothing, not even light, can escape.

Because light cannot escape, the core disappears from view. It is now called a black hole. Once something passes the event horizon of the black hole, it disappears. This is where science fiction gets the extraordinary idea that entrance into a black hole would bring time to a standstill.

How can black holes be found and studied if they are not visible? Even though black holes remain a mystery, they can be detected by perusing neighboring objects that display odd behaviors. If, for example, a disk of gas or a star has a wobbling or spinning motion, there is no visible reason for this motion, and the motion seems to be caused by an object with a mass greater than that of three suns, then it is possible that a black hole is causing the unusual behavior.

Astronomers have no idea what happens to an object when it disappears into a black hole. This contemplation is what fuels the creative explorations of black holes in movies and on TV.

Far from a dreary subject, black holes have intrigued astronomers and science fiction writers since they were first theorized in about 1795. The notion that black holes are huge vacuum cleaners, sucking up moisture and eating everything around them, is fantastical. The idea that they are mediums for time travel belongs not to science, but to science fiction. Nevertheless, what lies beyond the entrance to the black hole remains a mystery. Black holes are, perhaps, the most intriguing objects in space.

**Reading time: _____**

How difficult was this reading for you? (Circle the number that best represents your answer.)

| 1 | 2 | 3 | 4 | 5 | 6 |
|---|---|---|---|---|---|
| Very easy | | Just right for me | | | Very difficult |

**Academic A**
**Reading Fluency Diagnostic, Form B**

## Comprehension Test

***Without looking back at the reading, circle the best answer for each item. Do not look back at the passage.***

1. Which of the following statements is true about black holes?
   a. They allow for time travel.
   b. We do not have a great understanding of them.
   c. Many astronauts have seen them in space.
   d. Astronauts have disappeared down black holes.

2. According to the article, how does a star die?
   a. It catches on fire.
   b. It disappears into a black hole.
   c. It disintegrates.
   d. Its gases burn out.

3. According to the passage, how can a black hole be "seen"?
   a. By its wobbling motion.
   b. By the movement of neighboring objects.
   c. With the naked eye.
   d. Through a telescope.

4. An object will be drawn into a black hole if it passes the
   a. event horizon.
   b. ergosphere.
   c. static limit.
   d. star.

5. Summarize the process of how a black hole is formed by placing the following statements in the correct order.

   Statement 1: The star's core collapses.
   Statement 2: The core's gravity captures light so it disappears.
   Statement 3: The gases in a star burn out.
   Statement 4: It heats up and explodes.

   a. 1, 2, 3, 4
   b. 3, 1, 4, 2
   c. 4, 3, 1, 2
   d. 2, 3, 1, 4

6. The word COMTEMPLATION is closest in meaning to
   a. temptation
   b. question
   c. fact
   d. speculation

7. Why can't we see a black hole?
   a. It is too small.
   b. It emits no light.
   c. It is too big.
   d. It spins too fast.

8. Summarize the passage by placing the following statements in the correct order:
   Statement 1: A black hole is a dead star with a gigantic gravitational core.
   Statement 2: We do not know what happens to an object when it disappears into a black hole.
   Statement 3: There are many thrilling moves made about black holes, but little is really known about them.
   Statement 4: Movie directors know what happens in a black hole,
   Statement 5: There are ways to study invisible black holes.
   Statement 6: Science fiction movies about black holes can be frightening.

   a. 1, 5, 3, 4
   b. 4, 6, 2, 5
   c. 3, 1, 5, 2
   d. 6, 4, 1, 2

**Comprehension Score: ____ / 8**

How difficult were the comprehension questions for you? (Circle the number that best represents your answer.)

| 1 | 2 | 3 | 4 | 5 | 6 |
|---|---|---|---|---|---|
| Very easy | | Just right for me | | | Very difficult |

**Academic B**
**Reading Fluency Diagnostic, Form B**

Name _____

Teacher _____

## Nelson Mandela and Democracy in South Africa

In the history of South Africa, Nelson Mandela is a key person and 1994 is a key year. Until then, a small minority of white people governed South Africa and blacks were forced to live separately from whites. In 1948, the white government had made the separation of races official with a policy called apartheid. Black South Africans were not allowed to live in the same area or go to the same schools or churches as white people. Blacks had to carry identification papers, and the government controlled their movement and their employment.

When the apartheid policy began, Nelson Mandela was thirty years old. He had completed law school, and together with his friend Oliver Tambo, he opened a law office-the first blacks to do so in their country. Mandela and Tambo disagreed with the policy of apartheid and they began working to try to change it. They became leaders of the African National Congress (ANC), a movement of blacks and whites for democratic political change.

The white government did not like the ideas of the ANC and soon it was banned (made illegal). However, Mandela and other members of the ANC continued to work against apartheid, leading large demonstrations and rallies. Mandela became the leader of the military wing of the ANC, and he traveled to Algeria for military training. Upon his return to South Africa in 1962, he was arrested and sent to prison.

While Mandela was in prison, other ANC leaders were arrested for fighting against the government. In June 1964, Mandela and the other leaders were all sent to South Africa's worst and most dangerous prison, on Robben Island. But still they managed to keep in contact with the antiapartheid movement and they did not give up hope. Mandela wrote his autobiography and sent it out of the prison with visitors, piece by piece.

Other members of the ANC told people around the world about Mandela and his struggle against apartheid. Many countries stopped doing business with South Africa. World leaders demanded that Mandela be released from prison. Finally, F.W. deKlerk, the white president of South Africa, decided to release him and allow the ANC to meet again. In February 1990, Nelson Mandela walked out of prison, a free man after twenty-eight years!

Mandela took over the leadership of the ANC once again and led talks with the white government for an end to apartheid. Many people feared that the white government would refuse to give up power and there would be a terrible war, a "blood bath." However, working together, Mandela and deKlerk were able to bring peaceful democratic change to their country. They were awarded the Nobel Peace Prize for this achievement.

The next year, 1994, the first multiracial elections were held, and Nelson Mandela was elected president. At the end of his term as president in 1999, new elections were held and another black man, Thabo Mbeki, was elected. After his election, President Mbeki remarked, "One democratically elected president was followed by another, the true test of democracy."

Source: Mikulecky, B. S., & Jeffries, L. (2004). *More reading power* (pp. 213-214). White Plains, NY: Pearson.

**Reading time: _____**

How difficult was the reading for you? (Circle the number that best represents your answer."

| 1 | 2 | 3 | 4 | 5 | 6 |
|---|---|---|---|---|---|
| Very easy | | Just right for me | | | Very difficult |

**Academic B**
**Reading Fluency Diagnostic, Form B**

## Comprehension Test

***Without looking at the reading, circle the best answer for each item. Do not look back at the passage.***

1. This passage is about
   a. the policy of apartheid in South Africa.
   b. events in the history of South Africa.
   c. how black South Africans fought against apartheid.
   d. how Mandela brought democracy to South Africa.

2. Under the apartheid policy, black South Africans could not
   a. go to school or church.
   b. live where white people lived.
   c. carry identification papers.
   d. work for white people.

3. We can infer from this passage that
   a. many South African blacks supported the ANC.
   b. the ANC was not popular with South African blacks.
   c. other African countries were against the ANC.
   d. Mandela and Tambo disagreed with the ANC.

4. The white government of South Africa banned the ANC because it
   a. was a foreign organization.
   b. had no white members.
   c. wanted to change the government.
   d. wanted to make Mandela the president.

5. After Mandela returned from military training in Algeria, he
   a. was elected president.
   b. was arrested and sent to prison.
   c. began working to change apartheid.
   d. opened a law office with Oliver Tambo.

6. During his years in prison, Mandela
   a. wrote his autobiography.
   b. stopped working for the ANC.
   c. had no contact with the world.
   d. disagreed with Oliver Tambo.

7. Mandela was released from prison partly because of
   a. winning the Nobel Prize.
   b. the help of Thabo Mbeki.
   c. pressure from other countries.
   d. problems with his health.

8. Mandela's goal for South Africa was to have a
   a. government controlled by blacks.
   b. war against the government.
   c. military government.
   d. democratic government.

**Comprehension Score: _____ / 8**

How difficult were the comprehension questions for you? (Circle the number that best represents your answer.)

| 1 | 2 | 3 | 4 | 5 | 6 |
|---|---|---|---|---|---|
| Very easy | | Just right for me | | | Very difficult |

**Academic C**
**Reading Fluency Diagnostic, Form B**

Name _____

Teacher _____

## The Tomb of King Tut
## By Henry and Melissa Billings

On November 4, 1922, archaeologist Howard Carter dragged himself out of bed. Would it be another day of failure in the choking dust and searing heat of Egypt's Valley of the Kings? For 15 years Carter had been searching for the tomb of King Tutankhamen, often called simply King Tut. If he didn't find it soon, he might have to give up.

Luckily, however, this day would be different. The workers, who had begun digging earlier that morning, had found something. It was a stone step about six feet long. Carter knew almost immediately that it was part of a sunken staircase. Did it lead to King Tut's tomb? Carter took that day and the next to dig-carefully and slowlydown to the 12th step. There he found a doorway. The seals on the outer door, made 3,000 years earlier, proved it was a royal tomb and that its contents were intact.

Excitedly, Carter sent an urgent telegram to his financial backer and partner, Lord Carnarvon, who was in England. "At last have made wonderful discovery in Valley. Congratulations," he wrote. Carter knew that Carnarvon would want to share in the thrill of opening and entering the tomb. So he covered the stairway with dirt again to protect the tomb from thieves and waited for Lord Carnarvon's arrival.

Eighteen days later Lord Carnarvon arrived from England. The two men began uncovering the stairway once more. On November 25, they reached the outer door of the tomb. The next day they arrived at the inner door. "Feverishly," Carter later wrote, "we cleared away the remaining last scraps of rubbish on the floor of the passage before the doorway." They then saw the royal seal of Tutankhamen pressed into the plaster. There was no mistake-this was it! Carter's years of toil and failure had turned into triumph. "The day of days," were the words Carter used to describe this moment, "the most wonderful that I have ever lived through."

Fighting to control his excitement, Carter used a knife to make a small hole in the top of the door. He took a lighted candle and peered inside. "At first I could see nothing . . . , but presently, as my eyes grew accustomed to the light, details of the room emerged slowly from the mist, strange animals, statues and gold-everywhere the glint of gold."

Carter stood in awed silence. "For the moment-an eternity it must have seemed to the others standing by - I was struck dumb with amazement."

Lord Carnarvon, unable to stand the suspense any longer, called out from behind Carter, "Can you see anything?"

"Yes, it is wonderful," was all Carter could say. Howard Carter had unearthed the greatest treasure ever found in Egypt. The four rock-hewn rooms held more than 5,000 objects. It took Carter two months to reach the highlight of his discovery-the burial room. There he found a solid 22-carat gold coffin weighing 2,448 pounds. He also found what is now the most famous item in the tomb-

the extraordinary golden mask which covered King Tut's mummified head.

As was the custom in his day, King Tutankhamen had been buried with everything he might need to make him happy in the afterlife. His tomb was crammed with games, lamps, boats, jars of honey, flowers, statues of gods and goddesses, bows and arrows, baskets, jewels, clothes, and chairs. The tomb also contained two golden chariots which were so large they had to be taken apart to fit into the tomb. He was even buried with a lock of his grandmother's hair. Carter wrote, "So crowded [was the tomb] that it was a matter of extreme difficulty to move one [precious item] without running serious risk of damaging others." Searchers worked patiently and carefully for 10 years to excavate the entire tomb. The contents of the tomb are now on display at the Egyptian Museum in Cairo.

While other pharaohs had similar tombs, these other resting places had all been robbed eons ago. King Tut's was the only tomb that was left almost completely untouched.

Why was this tomb left alone? One theory is that King Tutankhamen was only a minor figure in Egyptian history. He came to the throne in 1352 B.C. and died nine years later at the age of 18. Perhaps big-time grave robbers passed over his tomb for the riches of more tempting targets. Or perhaps his underground tomb was too well covered to be noticed. After all, the tomb of another pharaoh, Ramses VI, was built right next door just 200 years later. During the building of Ramses's tomb, workers lived in huts erected over King Tut's tomb. The huts later fell to rubble, obscuring King Tut's burial site. In addition, much of the dirt for Ramses's tomb was dumped on the entrance to Tut's tomb.

When Carter began his excavation of Tut's tomb, some people proclaimed that breaking into it would bring bad luck. Dire inscriptions etched on the tomb warned that anyone who disturbed the king's tomb would be punished. The newspapers in London dubbed the warning "The Curse of the Pharaoh." And in fact, barely six weeks after the discovery of Tutankhamen's tomb, Lord Carnarvon died. He died from a mosquito bite which caused a blood infection. There's more. During the night Carnarvon lay dying in Cairo, the city went black from a mysterious power failure. At the same time, back in London, Carnarvon's dog gave a weird howl and then rolled over dead. Over the years, there were other deaths and suicides among people linked to the tomb.

Still, Howard Carter himself said that the "curse" was nonsense. If anyone was going to be cursed, he figured, it should have been him. But the great archaeologist died of natural causes at the age of 64 at his home in London on March 2, 1939.

Source: Fry, E. B. (2000). *Advanced level reading drills* (pp. 9-11). Lincolnwood, IL: Jamestown Publishers.

**Reading time: _____**

How difficult was the reading for you? (Circle the number that best represents your answer."

| 1 | 2 | 3 | 4 | 5 | 6 |
|---|---|---|---|---|---|
| Very easy | | Just right for me | | | Very difficult |

**Academic C**
**Reading Fluency Diagnostic, Form B**

## Comprehension Test

***Without looking at the reading, circle the best answer for each item. Do not look back at the passage.***

1. Howard Carter had searched for the tomb of King Tutankhamen for
   a. 6 years.
   b. 10 years.
   c. 15 years.
   d. 21 years.

2. Who was Lord Carnarvon?
   a. an official of the British government
   b. an English archaeologist
   c. Howard Carter's supervisor
   d. Howard Carter's financial backer
3. The door of Tut's tomb was decorated with
   a. pictures of gods and goddesses.
   b. jewels.
   c. the royal seal.
   d. gold letters.
4. What was the most famous item in the tomb?
   a. a golden chariot.
   b. the pharaoh's boat.
   c. a golden mask.
   d. a lock of Ling Tut's grandmother's hair.
5. How long did it take to excavate the tomb?
   a. 6 months
   b. 2 years
   c. 5 years
   d. 10 years

6. Where are most items from the tomb on display?
   a. Egyptian Museum in Cairo.
   b. British Museum in London.
   c. Field Museum of Natural History in Chicago.
   d. Smithsonian Institution in Washington, D. C.
7. Why was King Tut's tomb left untouched by grave robbers?
   a. Thieves were probably frightened away.
   b. Thieves could not find the tomb.
   c. The tomb was heavily guarded.
   d. "The Curse of the Pharaoh" killed all those that tried to rob it.

8. King Tut died at the age of
   a. 9.
   b. 18.
   c. 31.
   d. 64.

9. The tomb of the pharaoh Ramses VI was built
   a. 200 years after King Tut's tomb.
   b. 200 years before King Tut's tomb.
   c. at the same time as King Tut's tomb.
   d. 3,000 years before King Tut's tomb.

10. Lord Carnarvon died of
   a. injuries he received in a fall in the tomb.
   b. an infection caused by a mosquito bite.
   c. a virus he picked up from the stale air in the tomb.
   d. natural causes from old age.

**Comprehension Score: _____ / 10**

How difficult were the comprehension questions for you? (Circle the number that best represents your answer.)

| 1 | 2 | 3 | 4 | 5 | 6 |
|---|---|---|---|---|---|
| Very easy | | Just right for me | | | Very difficult |

**Appendix C**

## Self-Paced Reading - Teacher Instructions

1. Introduce the reading by giving the students a brief overview of the content.

2. Distribute the reading passage to the students.

3. Students are to read as quickly as they can while still comprehending the passage.

4. Students begin reading and teacher holds up the first time card. After one minute the teacher changes cards every 15 seconds.

5. Students should look up when they are finished reading and write down the time that appears on the card the teacher is holding.

6. Only after they have finished reading should the students read and begin answering the comprehension questions and should NOT refer back to the reading to answer the questions.

7. After everybody has finished reading and answering the comprehension questions the teacher distributes the grading rubric.

8. The teacher explains how to use the rubric to determine how many words per minute the students each read as well as their level of comprehension. Our goal is 200 wpm with 70% comprehension.

9. Students write their name on the rubric as well as how many wpm they read and their percentage of comprehension.

10. Teacher collects these and reviews the results.

## Appendix D

**Foundations A**
**Reading Fluency Diagnostic**

# Scoring Guidelines

### Words-per-minute

| Time | wpm |
|---|---|
| 1:00 | 250 |
| 1:15 | 200 |
| 1:30 | 167 |
| 1:45 | 143 |
| 2:00 | 125 |
| 2:15 | 111 |
| 2:30 | 100 |
| 2:45 | 91 |
| 3:00 | 83 |
| 3:15 | 77 |
| 3:30 | 71 |
| 3:45 | 67 |
| 4:00 | 63 |
| 4:15 | 59 |
| 4:30 | 56 |
| 4:45 | 53 |
| 5:00 | 50 |
| 5:15 | 48 |

### Comprehension Test Answers

1. C
2. B
3. C
4. D
5. B
6. B
7. A
8. C

1 correct = 13%
2 correct = 25%
3 correct = 38%
4 correct = 50%
5 correct = 63%
6 correct = 75%
7 correct = 88%
8 correct = 100%

**Foundations B**
**Reading Fluency Diagnostic**

# Scoring Guidelines

## Words-per-minute

| Time | wpm |
|---|---|
| 1:00 | 250 |
| 1:15 | 200 |
| 1:30 | 167 |
| 1:45 | 143 |
| 2:00 | 125 |
| 2:15 | 111 |
| 2:30 | 100 |
| 2:45 | 91 |
| 3:00 | 83 |
| 3:15 | 77 |
| 3:30 | 71 |
| 3:45 | 67 |
| 4:00 | 63 |
| 4:15 | 59 |
| 4:30 | 56 |
| 4:45 | 53 |
| 5:00 | 50 |
| 5:15 | 48 |

## Comprehension Test Answers

1. D
2. C
3. A
4. D
5. B
6. D
7. B
8. C

1 correct = 13%
2 correct = 25%
3 correct = 38%
4 correct = 50%
5 correct = 63%
6 correct = 75%
7 correct = 88%
8 correct = 100%

**Foundations C**
**Reading Fluency Diagnostic**

# Scoring Guidelines

## Words-per-minute

| Time | wpm | | |
|---|---|---|---|
| 1:00 | 350 | 4:00 | 88 |
| 1:15 | 280 | 4:15 | 82 |
| 1:30 | 233 | 4:30 | 78 |
| 1:45 | 200 | 4:45 | 74 |
| 2:00 | 175 | 5:00 | 70 |
| 2:15 | 156 | 5:15 | 67 |
| 2:30 | 140 | 5:30 | 64 |
| 2:45 | 127 | 5:45 | 61 |
| 3:00 | 117 | 6:00 | 58 |
| 3:15 | 108 | 6:15 | 56 |
| 3:30 | 100 | 6:30 | 54 |
| 3:45 | 93 | 6:45 | 52 |
| | | 7:00 | 50 |

## Comprehension Test Answers

1. B
2. C
3. D
4. C
5. A
6. B
7. D
8. A

1 correct = 13%
2 correct = 25%
3 correct = 38%
4 correct = 50%
5 correct = 63%
6 correct = 75%
7 correct = 88%
8 correct = 100%

**Academic Prep**
**Reading Fluency Diagnostic**

# Scoring Guidelines

## Words-per-minute

| Time | wpm | Time | wpm |
|---|---|---|---|
| 1:00 | 500 | 5:30 | 91 |
| 1:15 | 400 | 5:45 | 87 |
| 1:30 | 333 | 6:00 | 83 |
| 1:45 | 286 | 6:15 | 80 |
| 2:00 | 250 | 6:30 | 77 |
| 2:15 | 222 | 6:45 | 74 |
| 2:30 | 200 | 7:00 | 71 |
| 2:45 | 182 | 7:15 | 69 |
| 3:00 | 167 | 7:30 | 67 |
| 3:15 | 153 | 7:45 | 65 |
| 3:30 | 143 | 8:00 | 63 |
| 3:45 | 133 | 8:15 | 61 |
| 4:00 | 125 | 8:30 | 59 |
| 4:15 | 118 | 8:45 | 57 |
| 4:30 | 111 | 9:00 | 56 |
| 4:45 | 105 | 9:15 | 54 |
| 5:00 | 100 | 9:30 | 53 |
| 5:15 | 95 | 9:45 | 51 |

## Comprehension Test Answers

1. A
2. D
3. C
4. B
5. A
6. C
7. B
8. B

1 correct = 13%
2 correct = 25%
3 correct = 38%
4 correct = 50%
5 correct = 63%
6 correct = 75%
7 correct = 88%
8 correct = 100%

**Academic A**
**Reading Fluency Diagnostic**

# Scoring Guidelines

## Words-per-minute

| | | | |
|---|---|---|---|
| 1:00 | 500 | 5:30 | 91 |
| 1:15 | 400 | 5:45 | 87 |
| 1:30 | 333 | 6:00 | 83 |
| 1:45 | 286 | 6:15 | 80 |
| 2:00 | 250 | 6:30 | 77 |
| 2:15 | 222 | 6:45 | 74 |
| 2:30 | 200 | 7:00 | 71 |
| 2:45 | 182 | 7:15 | 69 |
| 3:00 | 167 | 7:30 | 67 |
| 3:15 | 153 | 7:45 | 65 |
| 3:30 | 143 | 8:00 | 63 |
| 3:45 | 133 | 8:15 | 61 |
| 4:00 | 125 | 8:30 | 59 |
| 4:15 | 118 | 8:45 | 57 |
| 4:30 | 111 | 9:00 | 56 |
| 4:45 | 105 | 9:15 | 54 |
| 5:00 | 100 | 9:30 | 53 |
| 5:15 | 95 | 9:45 | 51 |

## Comprehension Test Answers

1. B
2. C
3. D
4. D
5. A
6. C
7. A
8. B

1 correct = 13%
2 correct = 25%
3 correct = 38%
4 correct = 50%
5 correct = 63%
6 correct = 75%
7 correct = 88%
8 correct = 100%

**Academic B**
**Reading Fluency Diagnostic**

# Scoring Guidelines

## Words-per-minute

| Time | wpm | Time | wpm |
|---|---|---|---|
| 1:00 | 500 | 5:30 | 91 |
| 1:15 | 400 | 5:45 | 87 |
| 1:30 | 333 | 6:00 | 83 |
| 1:45 | 286 | 6:15 | 80 |
| 2:00 | 250 | 6:30 | 77 |
| 2:15 | 222 | 6:45 | 74 |
| 2:30 | 200 | 7:00 | 71 |
| 2:45 | 182 | 7:15 | 69 |
| 3:00 | 167 | 7:30 | 67 |
| 3:15 | 153 | 7:45 | 65 |
| 3:30 | 143 | 8:00 | 63 |
| 3:45 | 133 | 8:15 | 61 |
| 4:00 | 125 | 8:30 | 59 |
| 4:15 | 118 | 8:45 | 57 |
| 4:30 | 111 | 9:00 | 56 |
| 4:45 | 105 | 9:15 | 54 |
| 5:00 | 100 | 9:30 | 53 |
| 5:15 | 95 | 9:45 | 51 |

## Comprehension Test Answers

1. C
2. C
3. A
4. D
5. D
6. B
7. C
8. A

1 correct = 13%
2 correct = 25%
3 correct = 38%
4 correct = 50%
5 correct = 63%
6 correct = 75%
7 correct = 88%
8 correct = 100%

**Academic C**
**Reading Fluency Diagnostic**

# Scoring Guidelines

## Words-per-minute

| Time | wpm | Time | wpm | Time | wpm |
|---|---|---|---|---|---|
| 1:00 | 1,000 | 5:30 | 182 | 10:00 | 100 |
| 1:15 | 800 | 5:45 | 174 | 10:15 | 98 |
| 1:30 | 667 | 6:00 | 167 | 10:30 | 95 |
| 1:45 | 571 | 6:15 | 160 | 10:45 | 93 |
| 2:00 | 500 | 6:30 | 154 | 11:00 | 91 |
| 2:15 | 445 | 6:45 | 148 | 11:15 | 89 |
| 2:30 | 400 | 7:00 | 143 | 11:30 | 87 |
| 2:45 | 364 | 7:15 | 138 | 11:45 | 85 |
| 3:00 | 333 | 7:30 | 133 | 12:00 | 83 |
| 3:15 | 308 | 7:45 | 129 | 12:15 | 82 |
| 3:30 | 286 | 8:00 | 125 | 12:30 | 80 |
| 3:45 | 267 | 8:15 | 121 | 12:45 | 78 |
| 4:00 | 250 | 8:30 | 118 | 13:00 | 77 |
| 4:15 | 235 | 8:45 | 114 | 13:15 | 76 |
| 4:30 | 222 | 9:00 | 111 | 13:30 | 74 |
| 4:45 | 211 | 9:15 | 108 | 13:45 | 73 |
| 5:00 | 200 | 9:30 | 105 | 14:00 | 71 |
| 5:15 | 190 | 9:45 | 103 | | |

## Comprehension Test Answers

1. C
2. A
3. C
4. D
5. D
6. B
7. A
8. B
9. C
10. A

1 correct = 10%
2 correct = 20%
3 correct = 30%
4 correct = 40%
5 correct = 50%
6 correct = 60%
7 correct = 70%
8 correct = 80%
9 correct = 90%
10 correct = 100%

**Foundations A**
**Reading Fluency Diagnostic, Form B**

# Scoring Guidelines

## Words-per-minute

| Time | wpm |
|---|---|
| 1:00 | 250 |
| 1:15 | 200 |
| 1:30 | 167 |
| 1:45 | 143 |
| 2:00 | 125 |
| 2:15 | 111 |
| 2:30 | 100 |
| 2:45 | 91 |
| 3:00 | 83 |
| 3:15 | 77 |
| 3:30 | 71 |
| 3:45 | 67 |
| 4:00 | 63 |
| 4:15 | 59 |
| 4:30 | 56 |
| 4:45 | 53 |
| 5:00 | 50 |
| 5:15 | 48 |

## Comprehension Test Answers

1. C
2. B
3. D
4. A
5. C
6. D
7. B
8. B

1 correct = 13%
2 correct = 25%
3 correct = 38%
4 correct = 50%
5 correct = 63%
6 correct = 75%
7 correct = 88%
8 correct = 100%

**Foundations B**
**Reading Fluency Diagnostic, Form B**

# Scoring Guidelines

## Words-per-minute

| Time | wpm |
|---|---|
| 1:00 | 250 |
| 1:15 | 200 |
| 1:30 | 167 |
| 1:45 | 143 |
| 2:00 | 125 |
| 2:15 | 111 |
| 2:30 | 100 |
| 2:45 | 91 |
| 3:00 | 83 |
| 3:15 | 77 |
| 3:30 | 71 |
| 3:45 | 67 |
| 4:00 | 63 |
| 4:15 | 59 |
| 4:30 | 56 |
| 4:45 | 53 |
| 5:00 | 50 |
| 5:15 | 48 |

## Comprehension Test Answers

1. B
2. D
3. B
4. C
5. B
6. C
7. A
8. D

1 correct = 13%
2 correct = 25%
3 correct = 38%
4 correct = 50%
5 correct = 63%
6 correct = 75%
7 correct = 88%
8 correct = 100%

**Foundations C**
**Reading Fluency Diagnostic, Form B**

# Scoring Guidelines

## Words-per-minute

| Time | wpm | Ttime | wpm |
|---|---|---|---|
| 1:00 | 350 | 4:00 | 88 |
| 1:15 | 280 | 4:15 | 82 |
| 1:30 | 233 | 4:30 | 78 |
| 1:45 | 200 | 4:45 | 74 |
| 2:00 | 175 | 5:00 | 70 |
| 2:15 | 156 | 5:15 | 67 |
| 2:30 | 140 | 5:30 | 64 |
| 2:45 | 127 | 5:45 | 61 |
| 3:00 | 117 | 6:00 | 58 |
| 3:15 | 108 | 6:15 | 56 |
| 3:30 | 100 | 6:30 | 54 |
| 3:45 | 93 | 6:45 | 52 |

**Comprehension Test Answers**

1. C
2. B
3. D
4. C
5. D
6. A
7. B
8. C

1 correct = 13%
2 correct = 25%
3 correct = 38%
4 correct = 50%
5 correct = 63%
6 correct = 75%
7 correct = 88%
8 correct = 100%

**Academic Prep**
**Reading Fluency Diagnostic, Form B**

# Scoring Guidelines

## Words-per-minute

| Time | wpm | Ttime | wpm |
|---|---|---|---|
| 1:00 | 350 | 4:00 | 88 |
| 1:15 | 280 | 4:15 | 82 |
| 1:30 | 233 | 4:30 | 78 |
| 1:45 | 200 | 4:45 | 74 |
| 2:00 | 175 | 5:00 | 70 |
| 2:15 | 156 | 5:15 | 67 |
| 2:30 | 140 | 5:30 | 64 |
| 2:45 | 127 | 5:45 | 61 |
| 3:00 | 117 | 6:00 | 58 |
| 3:15 | 108 | 6:15 | 56 |
| 3:30 | 100 | 6:30 | 54 |
| 3:45 | 93 | 6:45 | 52 |

## Comprehension Test Answers

1. B
2. B
3. C
4. A
5. A
6. D
7. A
8. C

1 correct = 13%
2 correct = 25%
3 correct = 38%
4 correct = 50%
5 correct = 63%
6 correct = 75%
7 correct = 88%
8 correct = 100%

**Academic A**
**Reading Fluency Diagnostic, Form B**

# Scoring Guidelines

## Words-per-minute

| | | | |
|---|---|---|---|
| 1:00 | 500 | 5:30 | 91 |
| 1:15 | 400 | 5:45 | 87 |
| 1:30 | 333 | 6:00 | 83 |
| 1:45 | 286 | 6:15 | 80 |
| 2:00 | 250 | 6:30 | 77 |
| 2:15 | 222 | 6:45 | 74 |
| 2:30 | 200 | 7:00 | 71 |
| 2:45 | 182 | 7:15 | 69 |
| 3:00 | 167 | 7:30 | 67 |
| 3:15 | 153 | 7:45 | 65 |
| 3:30 | 143 | 8:00 | 63 |
| 3:45 | 133 | 8:15 | 61 |
| 4:00 | 125 | 8:30 | 59 |
| 4:15 | 118 | 8:45 | 57 |
| 4:30 | 111 | 9:00 | 56 |
| 4:45 | 105 | 9:15 | 54 |
| 5:00 | 100 | 9:30 | 53 |
| 5:15 | 95 | 9:45 | 51 |

## Comprehension Test Answers

| | |
|---|---|
| 1. B | 5. B |
| 2. D | 6. D |
| 3. B | 7. B |
| 4. A | 8. C |

| | |
|---|---|
| 1 correct = 13% | 5 correct = 63% |
| 2 correct = 25% | 6 correct = 75% |
| 3 correct = 38% | 7 correct = 88% |
| 4 correct = 50% | 8 correct = 100% |

**Academic B**
**Reading Fluency Diagnostic, Form B**

# Scoring Guidelines

## Words-per-minute

| Time | wpm | Time | wpm |
|---|---|---|---|
| 1:00 | 500 | 5:30 | 91 |
| 1:15 | 400 | 5:45 | 87 |
| 1:30 | 333 | 6:00 | 83 |
| 1:45 | 286 | 6:15 | 80 |
| 2:00 | 250 | 6:30 | 77 |
| 2:15 | 222 | 6:45 | 74 |
| 2:30 | 200 | 7:00 | 71 |
| 2:45 | 182 | 7:15 | 69 |
| 3:00 | 167 | 7:30 | 67 |
| 3:15 | 153 | 7:45 | 65 |
| 3:30 | 143 | 8:00 | 63 |
| 3:45 | 133 | 8:15 | 61 |
| 4:00 | 125 | 8:30 | 59 |
| 4:15 | 118 | 8:45 | 57 |
| 4:30 | 111 | 9:00 | 56 |
| 4:45 | 105 | 9:15 | 54 |
| 5:00 | 100 | 9:30 | 53 |
| 5:15 | 95 | 9:45 | 51 |

## Comprehension Test Answers

1. D
2. B
3. A
4. C
5. B
6. A
7. C
8. D

1 correct = 13%
2 correct = 25%
3 correct = 38%
4 correct = 50%
5 correct = 63%
6 correct = 75%
7 correct = 88%
8 correct = 100%

**Academic C**
**Reading Fluency Diagnostic, Form B**

# Scoring Guidelines

## Words-per-minute

| Time | wpm | Time | wpm | Time | wpm |
|---|---|---|---|---|---|
| 1:00 | 1,000 | 5:30 | 182 | 10:00 | 100 |
| 1:15 | 800 | 5:45 | 174 | 10:15 | 98 |
| 1:30 | 667 | 6:00 | 167 | 10:30 | 95 |
| 1:45 | 571 | 6:15 | 160 | 10:45 | 93 |
| 2:00 | 500 | 6:30 | 154 | 11:00 | 91 |
| 2:15 | 445 | 6:45 | 148 | 11:15 | 89 |
| 2:30 | 400 | 7:00 | 143 | 11:30 | 87 |
| 2:45 | 364 | 7:15 | 138 | 11:45 | 85 |
| 3:00 | 333 | 7:30 | 133 | 12:00 | 83 |
| 3:15 | 308 | 7:45 | 129 | 12:15 | 82 |
| 3:30 | 286 | 8:00 | 125 | 12:30 | 80 |
| 3:45 | 267 | 8:15 | 121 | 12:45 | 78 |
| 4:00 | 250 | 8:30 | 118 | 13:00 | 77 |
| 4:15 | 235 | 8:45 | 114 | 13:15 | 76 |
| 4:30 | 222 | 9:00 | 111 | 13:30 | 74 |
| 4:45 | 211 | 9:15 | 108 | 13:45 | 73 |
| 5:00 | 200 | 9:30 | 105 | 14:00 | 71 |
| 5:15 | 190 | 9:45 | 103 | | |

## Comprehension Test Answers

1. C
2. D
3. C
4. C
5. D
6. A
7. B
8. B
9. A
10. B

1 correct = 10%
2 correct = 20%
3 correct = 30%
4 correct = 40%
5 correct = 50%
6 correct = 60%
7 correct = 70%
8 correct = 80%
9 correct = 90%
10 correct = 100%

**Appendix E**

## Most Frequently Used Words 581-590

**Examples:**

| A. movie *n* \| mover mows motive movie | B. computer *n* \| computes computer compared |
|---|---|

| | |
|---|---|
| 1. personal *j* \| person perennial personal | 26. star *n* \| store star spar start scar |
| 2. land *n* \| band sand land hand lane | 27. third *m* \| third that thud hired tired |
| 3. general *j* \| general generation garnered | 28. computer *n* \| computes computer compared |
| 4. movie *n* \| mover mows motive movie | 29. worker *n* \| waiter wonder worker walker |
| 5. open *j* \| upon omen apron odor open | 30. catch *v* \| crash chase catch cash couch |
| 6. star *n* \| store spar start scar star | 31. personal *j* \| person perennial personal |
| 7. third *m* \| that third thud hired tired | 32. land *n* \| land band sand hand lane |
| 8. computer *n* \| computes compared computer | 33. general *j* \| general generation garnered |
| 9. worker *n* \| waiter wonder walker worker | 34. movie *n* \| movie mover mows motive |
| 10. catch *v* \| crash catch chase cash couch | 35. open *j* \| upon omen apron open odor |
| 11. personal *j* \| person personal perennial | 36. star *n* \| star store spar start scar |
| 12. land *n* \| band land sand hand lane | 37. third *m* \| that thud third hired tired |
| 13. general *j* \| generation general garnered | 38. computer *n* \| computer computes compared |
| 14. movie *n* \| mover mows movie motive | 39. worker *n* \| worker waiter wonder walker |
| 15. open *j* \| open upon omen apron odor | 40. catch *v* \| catch crash chase cash couch |
| 16. star *n* \| store spar start star scar | 41. personal *j* \| personal person perennial |
| 17. third *m* \| that thud hired third tired | 42. land *n* \| band sand hand lane land |
| 18. computer *n* \| computes computer compared | 43. general *j* \| generation garnered general |
| 19. worker *n* \| waiter worker wonder walker | 44. movie *n* \| mover movie mows motive |
| 20. catch *v* \| crash chase cash couch catch | 45. open *j* \| upon omen open apron odor |
| 21. personal *j* \| person personal perennial | 46. star *n* \| store spar star start scar |
| 22. land *n* \| band sand hand land lane | 47. third *m* \| that thud hired tired third |
| 23. general *j* \| generation general garnered | 48. computer *n* \| computes compared computer |
| 24. movie *n* \| mover mows movie motive | 49. worker *n* \| waiter worker wonder walker |
| 25. open *j* \| upon open omen apron odor | 50. catch *v* \| crash chase cash catch couch |

**Appendix F**

# Reading Fluency Activities Survey

## Q1

**Which reading class do you teach?**

Foundations Prep (Intensive)

Foundations Prep (Extensive)

Foundations A

Foundations B1

Foundations B2

Foundations C1

Foundations C2

Foundations C3

Academic Prep 1

Academic Prep 2

Academic A1

Academic A2

Academic A3

Academic B1

Academic B2

Academic C Life Sciences

Academic C International Studies

## Q2

**Think back on the last 12 days of classes at the ELC. How many days did you engage in reading fluency activities?**

12

11

10

9

8

7

6

5

4

3

2

1

## Q3

**On average, how many minutes do you devote to reading fluency (rate building and/or comprehension instruction) during a single class?**

2-5 minutes

6-10 minutes

11-15 minutes

16-20 minutes

21-25 minutes

more than 25 minutes

## Q4

**Which of the following rate building activities have you used in class? (check all that apply)**

Shadow reading

Shape recognition

Number recognition

Letter recognition

Word recognition

Phrase recognition

Rate build-up

Repeated reading

Class-paced reading

Self-paced reading

Other (please describe)

## Q5

**Which of the following comprehension building activities have you used in class? (check all that apply)**

Developing thick and thin questions

Using graphic organizers

SQ3R

Question Answer Relationships (QARs)

Other (please describe)

## Q6

**Do you need input from the Reading Fluency Team (Dr. Anderson, Jeff Zwick, and Paul Cave) to improve your efforts to build fluent readers?**

Yes (please specify what we can do to help you)

No

## Appendix G

**Foundations A**
**Reading Fluency Posttest**

**Name _____**

### The Essential Drink

The human body is about 73 percent water. Getting enough daily water essential.

A person at rest loses about 40 ounces of water a day, but an active person can lose twice that amount. Water leaves the body in obvious ways, but did you know that when you breathe, water escapes in your breath? It even evaporates through your skin, especially in hot or dry weather. When you work hard and exercise, sweating causes you to lose much more water.

The body needs water for its organs to function properly and to flush out toxins you ingest in the food you eat and breathe in from polluted air. Because the body loses water all the time, you must replace it. You can drink at least 40 ounces of liquids each day, but you can also intake water without drinking a drop from a glass. Many foods contain a large amount of water, especially fruits and raw vegetables. At the same time, not all liquids are alike. Carbonated beverages such as soft drinks do not hydrate the body well. Water and fruit juices are the best source of hydration.

What happens when the body does not get enough water? There are several signs of dehydration, including low energy and dry eyes and mouth. If you wait until you feel thirsty, you may already be dehydrated. If you are fatigued, instead of taking a nap, try drinking a glass of water. Often, it's all you need to feel refreshed.

**Reading Time: _____**

**Foundations A**
**Reading Fluency Posttest**

## Comprehension Test

***Without looking back at the reading, circle the best answer for each item. Do not look back at the passage.***

1. The main idea of this passage is
   a. Dehydration can be dangerous to the human body.
   b. The best source of fluid for our bodies is carbonated drinks.
   c. Fruits and vegetables are a good source of water.
   d. The human body needs to get enough water every day.

2. The word DEHYDRATION is closest in meaning to
   a. health.
   b. too much water.
   c. lack of water.
   d. sickness.

3. According to the passage, an active person can lose
   a. 80 ounces of water a day.
   b. 20 ounces of water a day.
   c. less water through breathing.
   d. 80 ounces of water through resting.

4. According to the passage, what is NOT a good way to hydrate yourself?
   a. Eat fruits.
   b. Drink water.
   c. Drink orange juice.
   d. Drink carbonated drinks.

5. Which of these inferences can be made from the information in the passage?
   a. Drinking soft drinks is preferable to drinking water.
   b. Some liquids are better than others at hydrating you.
   c. All foods can hydrate you.
   d. Water is the only liquid that will hydrate you.

6. Which one of these is NOT mentioned in the passage as an effect of not getting enough water?
   a. Tiredness
   b. Lack of energy
   c. Dry mouth
   d. Bloodshot eyes

7. Why does the writer advise drinking water if you are sleepy?
   a. It's cheaper than going to the doctor.
   b. You may be tired because you are dehydrated.
   c. Nothing else will work.
   d. Sleeping is not good for you.

8. What is the essential drink referred to in the title of the passage?
    a. Fruit juice
    b. Diet Coke
    c. Water
    d. Milk

**Comprehension Score: ____ / 8**

**Foundations B**
**Reading Fluency Posttest**

**Name _____**

## Let's See What You Can Do

If you have spent time in school, you are probably familiar with academic paper-and-pencil tests. You walk into the classroom, tired after staying up late to memorize information. You are nervous because the test is your only opportunity to prove to your teacher that you have learned the material. You want a good grade.

Some educators believe that traditional tests are of limited value. These tests require students to just remember information. Another type of test evaluates students' ability to use what they have learned in class.

Authentic assessment tests real-world skills. For example, to get a driver's license, people have to actually drive a car. The driving instructor takes notes on how well they handle the car. Musicians are also familiar with authentic assessment. They give recitals to demonstrate their musical proficiency to the public.

Projects are another type of authentic assessment. Engineering students might be asked to design two boats. They design one that will float, as boats should, and one that will sink. The students need to create drawings of the two boats, make a list of the materials they will use, and then actually build the two boats. The final step is to place the boats in the water. This is when the students evaluate their designs and predictions. The advantage of a project like this is that students can demonstrate a wide variety of skills. They apply their knowledge to the type of task they will one day perform in the real world.

Interviews can also be a form of authentic assessment. In an interview, the instructor will talk with students individually. For example, in an English language class, students might be asked what advice they would give to someone who has very noisy neighbors. In order to answer, students must think about the situation. They must decide which grammatical forms could be used to express their ideas. Then they explain their ideas using pronunciation that the instructor can understand. Instead of filling in blanks in existing sentences, in an interview students must do what people usually do with language--talk about something!

**Reading Time: _____**

**Foundations B**
**Reading Fluency Posttest**

## Comprehension Test

***Without looking back at the reading, circle the best answer for each item. Do not look back at the passage.***

1. The main idea of this passage is that
   a. in order to get a drivers license you must be able to drive.
   b. authentic assessment is a better measure of learning than traditional tests.
   c. projects are a better authentic assessment than interviews.
   d. building boats is a good way to test engineers.

2. According to the passage,
   a. traditional testing is best.
   b. authentic assessment is a good way to test what students have memorized.
   c. authentic assessment tests practical ability.
   d. traditional testing tests practical ability.

3. According to the passage,
   a. testing a student's memory is a good way to test his knowledge.
   b. the best way to test a musician's ability is by using a written test.
   c. projects are not an effective testing method.
   d. interviews are a good way to test a student's ability to use a language.

4. The word *memorize* means
   a. read.
   b. write.
   c. remember.
   d. analyze.

5. Which of these inferences can be made from the information in the passage?
   a. The speaker approves of changes to the testing system.
   b. Everyone is happy with traditional tests.
   c. All schools now use authentic assessment.
   d. The speaker thinks interviews are a poor way to test students' language skills.

6. Which of these is NOT mentioned in the passage as something that can be assessed authentically?
   a. Engineering
   b. Acting
   c. Driving
   d. Languages

7. What is an advantage of the projects mentioned in the passage?
   a. They test only mental ability.
   b. They aren't real assessments.
   c. They are easy to perform and grade.
   d. They allow students to apply what they have learned to tasks that are useful.

8. Which of the following is NOT an example of authentic assessment?
    a. A student must complete 10 math problems in five minutes.
    b. A student must explain the best way to invest $1,000.
    c. A student must develop a business plan for a new product.
    d. A student must create a monthly personal budget.

**Comprehension Score: ____ / 8**

**Foundations C**
**Reading Fluency Posttest**

**Name _____**

## Animal Camouflage

Every species on the planet must fulfill its basic need to eat and avoid being eaten; otherwise, it will die out. Over millions of years, animals have avoided extinction by adapting to their environments in ways that help them find food and avoid being attacked by other animals. Camouflage allows many animals to use their natural abilities to hide from prey and attackers alike. It works by either allowing the animal to blend in with its background or by making the animal look like another object.

For most animals, blending in with their surroundings is the most effective way to hide. An animal's natural environment is often the basis for its camouflage. For example, squirrels are brown, which makes them difficult to see when they are up in the trees, where they live. Sharks and dolphins are blue-gray, which makes them blend in with their watery habitat.

However, some animals can change color. Some animals produce pigments that appear as different colors. Another way is through physical makeup. For example, a polar bear looks white, but, in fact, its skin is black. It blends in with its icy surroundings because its hairs are translucent, or clear, and bend light, creating a white appearance.

Because their surroundings can change, leaving them vulnerable, some animals have developed ways to change their coloring depending on their environment. For example, during the spring and summer, an animal's habitat may be green and brown, whereas in the winter, everything may be white with snow. Many birds and mammals produce different colored feathers or fur according to the season. Seasonal shifts in temperature or length of days are factors that will set off a change in an animal's hormones that cause it to produce color-changing biochromes.

Fur and feathers are dead cells, and a bird or mammal must produce a whole new coat from these cells to change colors. The Arctic fox, for example, has a dark coat during the summer to match the dirt in its environment. In the fall, however, it sheds its dark coat and grows a white one to match the winter snow.

Some animals can disguise themselves with different colors and patterns in order to provide the most protection. One kind of moth has a pattern on its wings that resembles a snake's head, which scares away many attackers. Some nonpoisonous snakes have developed the same colorations as poisonous ones, which scares away potential threats.

Still other animals hide not by blending in but by taking on the appearance of something that is uninteresting to predators. For example, the walking stick, an insect that looks like an ordinary stick, can easily be seen, but predators think it is just a stick and, therefore, ignore it.

Animals all over the world have evolved different means of protecting themselves and hiding from their prey through camouflage. This provides the type of protection they need to survive. Survival allows for the animal to continue to avoid extinction and to thrive in the environment.

**Reading Time: _____**

**Foundations C**
**Reading Fluency Posttest**

## Comprehension Test

***Without looking back at the reading, circle the best answer for each item. Do not look back at the passage.***

1. The main idea of this passage is that
   a. animals can change in order to protect themselves.
   b. moths have the best form of camouflage.
   c. furs and feathers are dead cells and thus protect animals from harm.
   d. blending into your environment is the best protection.

2. According to the passage, how have animals survived over time?
   a. By being hunted
   b. By attacking other animals
   c. By feeding their young
   d. By blending in with their environment

3. What is NOT mentioned in the passage as an example of camouflage?
   a. Looking like another object
   b. Blending into the background
   c. Shifts in body temperature
   d. Changing color

4. According to the passage, which of the following is the most effective way for most animals to hide?
   a. Looking like another object
   b. Blending in with the surroundings
   c. Staying still
   d. Producing a new coat

5. The Arctic fox is an example of an animal that
   a. sheds its coat.
   b. sheds its skin.
   c. takes on the appearance of something else.
   d. changes its pattern.

6. We can infer from this passage that animals without effective camouflage
   a. are better hunters.
   b. will live longer lives.
   c. may become extinct.
   d. are very quick.

7. What is the most effective way for most animals to hide?
   a. Take on the color of their enemy.
   b. Blend in with their environment.
   c. Act like a different animal.
   d. Change their color to brown.

8. Which of the following sentences best expresses the essential information in the sentence below:

*Still other animals hide not by blending in but by taking on the appearance of something that is uninteresting to predators.*

a. Some animals attract predators by looking like other objects.
b. Some animals hide by resembling objects hunters don't want to eat.
c. Some animals don't blend in.
d. Some animals blend in by looking like other animals.

**Comprehension Score: ____ / 8**

**Academic Prep**
**Reading Fluency Posttest**

**Name _____**

## Defining Genius

The workings of the brain have long been a thing of mystery to scientists. It is only in the last twenty years that we are beginning to make progress into understanding the dynamics of different parts of the brain. The more we discover, the more we understand the operations of the different parts of the brain. The brain controls how we move, think, feel, see, crave, and interpret the stimuli around us. Our greater understanding of illnesses affecting the brain is leading to a better understanding and treatment of brain-related illnesses such as depression and bipolar disorder.

This research is helping us to define what a genius is. It is also leading us to understand much more about savant syndrome. Savant syndrome is a condition first diagnosed in 1877 by British physician J Langdon Down. Down's research was a novelty at the time. His research was centered on developmentally disabled individuals at Earlswood Asylum. Down had witnessed some patients performing amazing mental tasks. These tasks were at odds with their general mental abilities. This type of patient is sometimes referred to as an autistic savant. This is a person who suffers from autism yet displays strong mental abilities in one area of specialization.

Autistic people tend to dislike being held or touched. They have poorly developed communication skills. They avoid eye contact. They are prone to performing unusual repetitive behaviors such as head banging or rocking back and forth.

Have you ever met someone who is not very sociable yet they can do amazing things? Savant syndrome generates great attention, as it is still not fully understood. However, the condition is rare. It afflicts an estimated one out of every 2,000 developmentally disabled individuals. A larger percentage of men suffer from this syndrome.

Savants are gifted individuals endowed with an ability related to memory. In fact, their memory capacity is astounding. A talent in solving seemingly impossible mathematical calculations is also common. Some savants have amazing capabilities in music and art. Some can play a complete symphony on the piano having heard it only once. Others can make incredibly lifelike drawings even from a very young age.

Savants use their skills robotically and are not able to perform basic related functions. For example, a savant could recite the complete works of Shakespeare, yet not be able to explain any of the stories. A musical savant typically won't be able to read music. A mathematical savant won't be able to make a simple purchase at a supermarket. Their talents seem to use a part of their brain as if it is bypassing the rest.

Another criterion for diagnosing savant syndrome is that these abilities appear suddenly and are fully developed early in life. A 3-year-old girl, for example, will display the ability to create professional artistic drawings having never practiced before, and this talent will not improve with age. It is already fully developed. However, in some cases, these amazing abilities disappear as suddenly as they appeared.

**Reading Time: _____**

**Academic Prep**
**Reading Fluency Posttest**

## Comprehension Test

***Without looking back at the reading, circle the best answer for each item.***

1. According to the passage, which of the following statements is true?
   a. Scientists finally discovered how the brain works 20 years ago.
   b. In the last 20 years, scientists have made many discoveries about the brain.
   c. It has taken 20 years to study the brain.
   d. J Langdon Down spent 20 years studying savant syndrome.

2. When was savant syndrome discovered?
   a. When patients' repetitive behaviors were noticed.
   b. When researchers studied volunteers.
   c. When patients in a mental hospital were observed with skills unexpected of their mental capacity.
   d. When dementia patients suddenly had new abilities that they had previously not shown.

3. According to the passage, what does research on savant syndrome seem to indicate?
   a. Special skills are limited to math.
   b. There is a cure for autism.
   c. There is a cure for dementia.
   d. Everyone is theoretically capable of acts of genius.

4. The phrase *at odds with* is closest in meaning to
   a. strange.
   b. similar to.
   c. harmful to.
   d. contrary to.

5. What is NOT mentioned in the passage as a symptom of autism?
   a. Excellent motor skills
   b. Repetitive behavior
   c. Aversion to being touched
   d. Avoidance of looking people in the eye

6. Savant syndrome is associated with
   a. motor function.
   b. speech.
   c. memory.
   d. observation.

7. Which of the following statements is mentioned as a hypothesis about what is happening in the brain of autistic savants?
   a. Their talents seem to use a part of their brain as if it is bypassing the rest.
   b. There is something wrong with the right side of the brain.
   c. There is something wrong with the left side of the brain.
   d. The genes for retardation and special ability are both inherited.

8. What is NOT mentioned in the passage as a typical skill of a savant?
   a. Creating professional artistic drawings.
   b. Acting in a play.
   c. Playing music perfectly by ear.
   d. Solving challenging math problems.

**Comprehension Score: ____ / 8**

**Academic A**
**Reading Fluency Posttest**

**Name** _____

## Africa Today

Newspaper and television reports around the world show Africa as a continent with many problems. They focus on the wars, the starving children, the terrible diseases, and the natural disasters. Other, more positive aspects of life in Africa are rarely shown.

There are, indeed, serious problems in many parts of Africa. The biggest problem facing Africans today is the continuing threat of wars. These wars are in part due to historic competition among tribes. However, in the past, the fighting was local and small scale. In recent years, it has become far more violent and destructive. This is partly because of the destructive power of modern weapons, which are being used more and more. It is also because the situation has changed dramatically over the years.

Starting in the sixteenth century, European powers began to move into Africa. They took African people to sell as slaves in North and South America. They also took any valuable resources they could find, such as ivory, gold, or diamonds. In the nineteenth century, the European rulers divided up the continent into countries. They did not understand much about African tribal traditions, and so the borders of these countries did not match the traditional borders of tribal lands.

When the countries of Africa became independent in the twentieth century, there were often several different tribes in a country, and each tribe wanted to rule. The result was conflict and civil war. In many countries, the civil wars have been going on for decades as different groups fight for control of the government. Governing means having not only power, but also having access to wealth—and one of the few ways out of a life of poverty. In recent years, it has also meant having control over international aid and, therefore, access to food in times of starvation.

Many of the problems facing Africa today have been worsened by this fighting over control of the government. Countries that are at war have little time or resources to deal with poverty, hunger, or disease. They are unable to take any measures for a better future, and so many countries are becoming poorer and their problems are growing. For example, HIV, the virus that causes AIDS, has spread rapidly in Africa because of the lack of education and health care, as well as the lack of medical supplies. Other diseases, many preventable, have spread quickly for the same reasons.

In spite of these problems, however, many Africans are hopeful about their future. Ordinary people in many countries are joining together to change and improve their lives. Young and talented Africans are looking out to the rest of the world. They are experimenting with ways to use the Internet and other new technology to try to solve some of their problems. In the arts, and especially in music, many talented performers are showing the world what it means to be African.
(Source: Mikulecky, B., & Jeffries, L. [2004]. *More reading power* (pp. 211-212). White Plains, NY: Longman.)

**Reading time:** _____

**Academic A**
**Reading Fluency Posttest**

## Comprehension Test

***Without looking back at the reading, circle the best answer for each item.***

1. This passage is about

   e. the diseases in Africa.
   f. independence in Africa.
   g. the situation in Africa today.
   h. newspaper reports about Africa.

2. According to this passage, the main factor preventing a solution to Africa's problems is
   e. disease.
   f. poverty.
   g. war.
   h. international aid.

3. Wars are more violent in the twenty-first century partly because

   e. modern weapons are more destructive.
   f. of the lack of education and health care.
   g. there has been an increase in natural disasters.
   h. valuable natural resources are lacking.

4. In the past, European powers

   e. fought over control of the government.
   f. tried to help the Africans economically.
   g. could not find any valuable resources in Africa.
   h. did not understand African traditions.

5. In many countries, different groups are fighting for control over the government so they can

   e. control the spread of the HIV virus.
   f. free their country from European rulers.
   g. change the borders of their country.
   h. become richer and control food supplies.

6. You can infer from this passage that international aid

   e. can help prevent fighting between groups.
   f. may sometimes be a cause of fighting.
   g. might not be helpful in preventing AIDS.
   h. usually has no effect on the fighting.

7. According to this passage, there is a close connection between

    e. access to wealth and level of education.
    f. international aid and the spread of disease.
    g. education and the spread of the HIV virus.
    h. African tribal traditions and poverty.

8. Many young people in Africa today are

    e. hopeful in spite of their problems.
    f. talented politicians and leaders.
    g. hoping to move to other countries.
    h. not interested in their traditions.

**Comprehension Score: ___ / 8**

**Academic B**
**Reading Fluency Posttest**

**Name** _____

## Greener Businesses

Business is often seen as the "bad guy" in environmental matters because people feel that businesses will do anything to make a profit. Unfortunately, this is too often the case. Many businesspeople, in fact, believe that they cannot make a profit and be kind to the environment at the same time. However, it does not necessarily have to be this way. Using common business strategies, companies have found ways to become environmentally friendly, or "green," and increase their profits at the same time.

One such strategy that businesses use is known as "product differentiation." This term means that a company advertises the fact that its product is different from other, similar products. A number of environmentally friendly companies emphasize the organic aspect. That is, they highlight the fact that no chemicals have been used to grow the food, and so it is better for consumers' health and for the environment. These days, many consumers are looking for products that have no negative health or environmental effects.

Another "green" business strategy that has been successful is waste reduction. Many companies have considered waste and pollution as a necessary part of the production process. They have done little to prevent either waste or pollution, unless there were laws that forced them to. However, other companies have realized that there are definite advantages to reducing waste and pollution. Less waste and less pollution means a more efficient production process. The 3M Company in the United States is a good example of this. In 1975, it started a program that rewarded employees for successful ideas about how to reduce waste and prevent pollution. This program has helped the company pollute much less and save more than a half a billion dollars.

Some companies have taken the idea of waste prevention even further and have become "zero-waste" companies. That means they produce no waste at all because everything from the production process is used or recycled. Asahi Breweries of Japan, for example, sends the waste from its beer production to farms to be used as animal feed. The plastic and cardboard pieces from packaging are all recycled, too.

Finally, companies can become "greener" by planning for a "greener" future. For example, two energy companies, Royal Dutch/Shell and British Petroleum, have started to invest in renewable energy sources, such as solar, wind, or hydrogen energy. Shell is also working with Daimler-Chrysler, an automobile company, and the government of Iceland on a special project to make Iceland the first country with a hydrogen-based economy. Other multinational companies have also realized that global warming and climate change could hurt their business, and they have decided to cut back on the amount of harmful gases that their factories produce. Of these, Dupont is one of the leaders. It aims by 2010 to reduce harmful gases by 65 percent from the 1990 amounts. It also plans to limit its energy use to 1990 levels and to use renewable sources of energy for 10 percent of all the energy it uses.
(Source: Mikulecky, B., & Jeffries, L. [2004]. *More reading power* (pp. 249-250). White Plains, NY: Longman.)

**Reading time:** _____

**Academic B**
**Reading Fluency Posttest**

## Comprehension Test

***Without looking back at the reading, circle the best answer for each item.***

1. This passage is about

   i. business strategies for international companies today.
   j. how business can be both "green" and profitable.
   k. what business can do to become more profitable.
   l. why businesses are seen as the environmental bad guys.

2. Product differentiation means that the product is
   i. no different from other products.
   j. very profitable for the company.
   k. advertised as different from other products.
   l. good for your health and for the environment.

3. Companies that reduce waste and pollution

   i. save money.
   j. spend money.
   k. produce less.
   l. break laws.

4. The 3M Company rewarded employees for

   i. ideas that would increase its profits.
   j. helping prevent waste and pollution.
   k. successful strategies for marketing.
   l. improving product differentiation.

5. Asahi Breweries is an example of a company that

   i. uses animal feed to make beer.
   j. does not make any profit.
   k. has reduced waste and pollution.
   l. produces no waste at all.

6. Royal Dutch/Shell and British Petroleum are examples of companies that

   i. invest money in new buildings.
   j. do not look ahead into the future.
   k. want to lead new developments.
   l. produce a lot of waste and pollution.

7. We can infer from this passage that many companies

   i. are already "zero-waste" companies.
   j. are leading new developments.
   k. invest in renewable energy.
   l. look mostly at the present situation.

8. Iceland will be the first country to

   i. be free of hydrogen.
   j. have a new economy.
   k. use only hydrogen.
   l. have climate change.

**Comprehension Score: ___ / 8**

**Academic C**
**Reading Fluency Posttest**

**Name _____**

## Points of Origin
## By Michael Omert

Throughout the history of mankind there has always been room for those tamed animals we now consider pets. The great pet in history and legend is, of course, the cat. There was a cat cult among the Egyptians of the late dynasties, and its best-known goddess was named Bastet. The Romans had *Felis catus* to help with the mousing and to play with around the hearth. (The designation *Felis domesticus* is a modern scientific notation, not a Roman one.) This pet appears in classical Roman art, in literature, and on coins. There is even a Latin word, *murmare,* meaning "to purr."

The Italian poet Petrarch is remembered by some fugitive lines in Latin attributed to his cat who seems as beloved as his human heartthrob, Laura. The feline narrator of the verse suggests that he was rewarded by Petrarch for his fidelity even as Laura was for her grace and beauty: "She first inspired the poet's lay,/But since I drove the mice away,/His love repaid my duty."

The cat has nowhere been the subject of more fascination and respect than in Britain. Indeed, the braininess of British cats is attested by a letter to the respected journal, *Notes and Queries,* in 1868:

> We were talking about the sagacity shown by some animals, when I mentioned the story, which I think Archbishop Whately tells in some of his writings, of his cat ringing the doorbell. This anecdote brought out a still better one from my neighbor, who had come in to see me for a chat. He said that when he was about 25 years of age, there was belonging to his house a certain cat, which up to that time had not attracted notice for any particular sagacity. But the pantry window of the old-fashioned house was found to be repeatedly broken. Time after time the broken square—for one only was broken at a time—was repaired. At length my friend, growing tired of mending, made up his mind to have a board nailed over the lower row of the window-panes. Not very long after this precaution had been taken, being awake one night, he heard in his bedroom, which was close by, several distinct taps, as of a stone, upon glass. Getting out of bed, and looking down from the window, he saw then and there his cat resting with her hind feet upon the window-sill, her left paw clinging to the top of the new board, and with her other paw, in which she held a pebble, she was tapping the glass, in order no doubt to break it. He shouted out, and the cat jumped down, dropping the pebble—about the size of a marble—which in the morning he picked up.

But for all the respect they have inspired, cats have also been cruelly treated in many ages. The municipal records of Colchester, England, detail the 1651 trial of William Beard, who was alleged to have cut off the tail of Tom Burgis's cat. (For their part, the Burgis family retaliated by either poisoning or bewitching their pet's tormentor.)

Medieval students are known to have gambled with cats. As a result, medieval schools usually

forbade the keeping of pets of any kind, but to little apparent avail. Students at the University of Paris in the 13th century are known to have used stray cats to play dice by balancing the cubes on their paws until they flicked them off. Winning cats were fed; losers had their skins sold.

The folklore associated with dogs, like that of cats, is rich and varied. A belief in East Anglia held that if a dog turned around three times, a stranger would call. A person should never handle children's teeth that were accidentally knocked out: otherwise, he himself would grow dog's teeth. These superstitions were current in the 19th century.

The reputation for faithfulness attached to dogs gave rise to their being a symbol of fidelity and to their being selected to appear on tomb effigies with ladies and knights of great stature. In one celebrated case, a dog was buried along with the body of a 13th-century bishop. A liturgical reason for this is obvious. As the shepherd of his flock, a bishop has a fit companion in the dog.

As for the "pet" saints of the medieval Christians, their stories are as memorable as they are charming. For example, St. Dominic is symbolized by a dog (at his birth his mother dreamt she had brought forth a whelp with a torch in its mouth), and fittingly founded the religious order called the Dominicans (from the Latin, *Domini canes,* "dogs of the Lord").

Although Aristotle flatly states that fish are the only creatures that cannot be tamed, a cult of St. Anthony of Padua (1195—1231) seems to give the lie to that assertion. The legend records that, at a time when a group of heretics refused to be moved by his preaching, he turned his voice to the shore of the Adriatic and addressed the multitude of fishes, which obliged him and arranged themselves neatly according to their species. When the good saint pointed out that God had spared them alone from the destruction of the deluge, and that they were also insensible to the vicissitudes of the weather and seasons that attack the world above water, "the fish, as though they had been endowed with reason, bowed down their heads with all the marks of a profound humility and devotion, moving their bodies up and down with a kind of fondness." Such was the tale presented to Padua tourists in 1705, when the English essayist Joseph Addison recorded his travels in Italy.

A similar legend is attached to the medieval lore of St. Patrick, on whose feast day the fish were expected to rise from the sea and parade before his altar. St. Patrick might well have sent the snakes away, as every true Irishman knows, but to my mind bringing the fish back was a much bigger feat.

(Source: Fry, E. B. [2000]. *Reading drills: Advanced level* (pp. 146-148). Lincolnwood, IL: Jamestown Publishers.)

**Reading Time: _____**

**Academic C**
**Reading Fluency Posttest**

## Comprehension Test

***Without looking back at the reading, circle the best answer for each item.***

1. The great pet in history and legend is the
   a. dog.
   b. pig.
   c. cat.
   d. rabbit.
2. The Latin word *murmare* means
   a. to purr.
   b. mother cat.
   c. to scratch.
   d. to meow.
3. The Italian poet Petrarch wrote a poem that he attributed to
   a. Aristotle.
   b. his love, Laura.
   c. his cat.
   d. his dog.
4. Which country shows special fascination and the most respect for cats?
   a. Ireland
   b. Italy
   c. Scotland
   d. Britain

5. An article published in 1868 described
   a. a poem written by a cat.
   b. a cat that was poisoned.
   c. the Egyptian cat cult.
   d. a cat who broke windows with a stone.

6. In the 1651 trial in Colchester, England, William Beard was alleged to have
   a. stolen a horse.
   b. cut off a cat's tail
   c. poisoned a cat.
   d. starved a dog.

7. What did some medieval students do with cats?
   a. gambled with them
   b. used them to keep mice away
   c. arranged for cat fights
   d. buried them alive

8. A superstition in East Anglia held that if a dog turned around three times its owner would
   a. grow dog's teeth.
   b. be called on by a stranger.
   c. have three years of bad luck.
   d. have three years of good luck.
9. Which creature did Aristotle flatly state could not be tamed?
   a. the cat
   b. the dog
   c. the fish
   d. the bird
10. According to the selection, every true Irishman knows that Saint Patrick
   a. sent the snakes out of Ireland.
   b. founded the Dominican religious order.
   c. gave Ireland its name.
   d. is the patron saint of fishermen

**Foundations A**
**Reading Fluency Post Test, Form B**

Name_____

Teacher _____

## Fabulous Fungi

Different types of fungi are often used in cooking--mushrooms are mixed into pasta and soups, mold is used to make cheeses, and yeast is used in making bread --but they can also save lives. Some of the most valuable medicines in the world are derived from fungi, including penicillin, which helps fight disease and infection in the body. Many medicines for allergies are also made from fungi.

Doctors in the Far East have known for centuries that certain plants and fungi are beneficial in the treatment of illnesses. In the West, however, fungi have been seriously studied for their healing effects only for the last 70 years.

How did a common mold that was thought to be bad become an important medicine? In 1928 in a hospital laboratory, Alexander Fleming was studying the flu virus, and by mistake, penicillin was created. Fleming won the Nobel Prize for his breakthrough. It was one of the greatest medical discoveries of the century. Penicillin and other medicines derived from molds and fungi are now indispensable in the treatment of viruses and such diseases as cancer.

Can people treat their own illnesses by eating pizza with mushrooms? Absolutely not! In fact, some kinds of wild mushrooms are poisonous. Specific types of yeast and fungi must be grown by scientists in a laboratory in order for them to work as medicines. So, buy your mushrooms at a supermarket and enjoy them on your pizza, but let the doctors make medicine.

**Reading Time:_____**

How difficult was the reading for you? (Circle the number that best represents your answer."

| 1 | 2 | 3 | 4 | 5 | 6 |
|---|---|---|---|---|---|
| Very easy | | Just right for me | | | Very difficult |

**Foundations A**
**Reading Fluency Post Test, Form B**

## Comprehension Test

***Without looking at the reading, circle the best answer for each item. Do not look back at the passage.***

1. Why was the discovery of penicillin so important?
   a. It led to many deaths.
   b. It led to medicines that treat many diseases.
   c. It won Fleming the Nobel Prize.
   d. It was an accident.

2. What food is NOT mentioned in the passage as containing fungi or mold?
   a. Cheese
   b. Pasta
   c. Bread
   d. Butter

3. The word DERIVED in paragraph 1 means
   a. related to.
   b. made from.
   c. connected to.
   d. caused by.

4. The word BREAKTHROUGH in paragraph 3 means
   a. broken object.
   b. work.
   c. discovery.
   d. research.

5. The word INDESPENSIBLE in paragraph 3 means
   a. given out.
   b. valuable.
   c. forgotten.
   d. useless.

6. What is NOT mentioned as something fungi is used to treat?
   a. Viruses
   b. Cancer
   c. Bacteria
   d. Allergies

7. Chinese doctors have been using fungi as medicine
   a. for hundreds of years.
   b. for the last 70 years.
   c. since 1928.
   d. since the 20th century.

8. Which statement is NOT true?
    a. Penicillin was created by accident.
    b. Penicillin was created in a laboratory.
    c. Penicillin was created by Alexander Fleming.
    d. Penicillin was created from mushrooms.

**Comprehension score: _____ / 8**

How difficult were the comprehension questions for you? (Circle the number that best represents your answer.)

| 1 | 2 | 3 | 4 | 5 | 6 |
|---|---|---|---|---|---|
| Very easy | | Just right for me | | | Very difficult |

**Foundations B**
**Reading Fluency Post Test, Form B**

Name_____

## A Vacation You'll Work For

For most people, traveling is relaxing, educational, and fun. For some, it is also an opportunity to give something to others. Volunteer vacationing, or traveling as a worker-learner, is a mix of adventure travel and cultural immersion. The primary purpose is to use your skills to benefit others and the world around you as you learn about other people and places.

This type of volunteering is open to almost anyone. There are usually no language requirements or professional prerequisites, and training is provided. Contributors are of all ages and backgrounds. However, volunteers must have good health, a sense of adventure, and be willing to try new things.

Many companies organize these types of vacations. Volunteers can choose projects close to home, such as clearing nearby hiking trails, or projects in other countries, such as aiding in the protection of coral reefs off the coast of Fiji or studying the environment near Hong Kong to learn how to preserve nearby wetlands. Many people choose to work on projects in locations they would not ordinarily visit on their own.

An assignment can last from a week to several months. Projects range from teaching and providing health care to building community structures, helping to plan businesses, and setting up libraries. There are also ecological projects, such as the ones mentioned above, in which the environment is the central focus.

Volunteers help people even as they benefit from the trips themselves. They not only get the satisfaction of helping others but also have the opportunity to learn. Some volunteers stay in community centers and private homes, making interaction with local people inevitable.

Usually, volunteers pay a fee for the privilege of participating in a program. Often, housing and meals are included, but transportation to and from the project is not.

Working while traveling is not for everyone. Lounging on a beach with a book or camping in the mountains may be the kind of trip you need to get away from the stress of work or school. However, if you have the inclination, a volunteer vacation may be the most rewarding experience of your life.

**Reading Time:_____**

How difficult was the reading for you? (Circle the number that best represents your answer."

| 1 | 2 | 3 | 4 | 5 | 6 |
|---|---|---|---|---|---|
| Very easy | | Just right for me | | | Very difficult |

**Foundations B**
**Reading Fluency Post Test, Form B**

**Comprehension Test**

***Without looking at the reading, circle the best answer for each item. Do not look back at the passage.***

1. According to the passage, people who volunteer must
   a. be young and healthy.
   b. have experience traveling to foreign countries.
   c. be willing to try things that are different.
   d. have a particular set of skills.

2. The word LOUNGING in paragraph 7 means
   a. walking.
   b. relaxing.
   c. standing.
   d. writing.

3. The word INCLINATION in paragraph 7 is closest in meaning to
   a. money.
   b. ability.
   c. skills.
   d. desire.

4. The word INEVITABLE in paragraph 5 means
   a. necessary.
   b. impossible.
   c. certain to happen.
   d. difficult.

5. According to the passage, which is NOT an example of a volunteer vacationing project?
   a. teaching
   b. providing healthcare
   c. clearing trails
   d. rock climbing

6. How can volunteers learn about the people and culture of the country they visit?
   a. Stay in a community center or someone's home.
   b. Buy a guidebook.
   c. Set up a library.
   d. Travel alone.

7. Which of these statements is NOT true?
   a. Most assignments last no more than a few months.
   b. Transportation to and from the project is always paid for by the tour operator.
   c. Most people can do volunteer vacationing.
   d. Volunteer vacationing can be very rewarding.

8. The kind of person who would NOT like this kind of traveling is
   a. a university graduate.
   b. someone looking to increase their knowledge.
   c. someone who just wants to relax.
   d. someone wanting to learn about other cultures.

**Comprehension score: _____ / 8**

How difficult were the comprehension questions for you? (Circle the number that best represents your answer.)

| 1 | 2 | 3 | 4 | 5 | 6 |
|---|---|---|---|---|---|
| Very easy | | Just right for me | | | Very difficult |

**Foundations C**
**Reading Fluency Post Test, Form B**

Name _____

Teacher _____

## The Science of Strange Experiences

Throughout the ages, people have claimed to have been abducted by aliens or had visions of a white light at the end of a tunnel when they thought they were about to die. In the early 20th century, such experiences would have been attributed to supernatural forces. Today, however, the modern age prides itself on rational explanations for even strange experience. Science has allowed us to understand our world by demystifying the things that occur from time to time.

For example, people who have had near-death experiences have claimed to see visions of a white light at the end of the tunnel and felt a great calm and peace descend upon them. Most interpreted it as their personal God calling them to a higher spiritual realm.

It was clear that each person would interpret the light and tunnel according to their own belief system, so scientists set out to find a scientific reason why people of different races, cultures, and religions had similar visions. They investigated this intriguing experience by blindfolding people and electrically stimulating parts of their brain. Their descriptions of the light were similar to those of the people who had had a near-death experience. Scientists concluded that the vision seen in near-death experiences was the body's response to a traumatic event (death itself) and not heaven, God, or a higher spiritual realm.

Another strange experience that some have claimed to have had is alien abduction. Again, science has partially explained this experience. Scientists have hypnotized people, fed them false information, and then questioned them afterwards on what they remember. Test subjects often reported the false information as things they remembered from their past. This experiment proved that memories can be implanted, and those claiming to be captured by aliens could have actually been recalling dreams rather than actual memories.

As technology advances, science continue to find rational answers for the intriguing experiences that happen to us. However, science is ever changing, New information is being added everyday with each new study. It is clear that science will always serve to remind us of how little we actually know.

**Reading time: _____**

How difficult was this reading for you? (Circle the number that best represents your answer.)

| 1 | 2 | 3 | 4 | 5 | 6 |
|---|---|---|---|---|---|
| Very easy | | Just right for me | | | Very difficult |

**Foundations C**
**Reading Fluency Post Test, Form B**

## Comprehension Test

***Without looking back at the reading, circle the best answer for each item. Do not look back at the passage.***

1. The word RATIONALE is closest in meaning to
   a. easy.
   b. logical.
   c. clear.
   d. complicated.

2. The word SUPERNATURAL is closet in meaning to
   a. earthly.
   b. mysterious.
   c. funny.
   d. ordinary.

3. What did scientists NOT do to explain alien abduction experiences?
   a. Hypnotize people
   b. Gave them false information
   c. Shined a light on their face.
   d. Questioned them afterwards

4. The author feels that
   a. science will eventually be able to explain most unusual experiences.
   b. we really do not know much and cannot explain everything.
   c. aliens definitely exist and they can use science to prove it.
   d. God doesn't exist and religion cannot explain unusual experiences.

5. From the passage we can infer that
   a. science will one day explain experiences we don't understand right now.
   b. aliens exist and can provide important information in helping us understand science.
   c. God does not exist and science is able to prove it.
   d. science cannot explain everything even though some would like it to.

6. According to the passage, people who undergo a near death experience
   a. do not feel calm or peaceful.
   b. see different things depending on where they are from.
   c. feel like they are in a dream.
   d. see visions of a white light at the end of a tunnel.

7. Scientists found that
   a. memories can be implanted.
   b. many people have actually been abducted by aliens.
   c. people often dream of aliens.
   d. it is impossible to be abducted by aliens.

8. Create a summary of the passage by choosing three of the following sentences:
    1. Scientific experiments have explained previously unexplained experiences.
    2. We will learn more as further scientific studies are conducted.
    3. Alien abduction can be explained by magnets.
    4. Before we had science to explain our experiences, we believed in supernatural forces, but today's knowledge demystifies these beliefs.
    5. The white light seen during near-death experiences is explained by stimulation of certain parts of the brain.
    6. Hypnosis can cause false memories.

    a. 1, 2, 3
    b. 4, 6, 2
    c. 4, 1, 2
    d. 1, 5, 6

**Comprehension Score: ____ / 8**

How difficult were the comprehension questions for you? (Circle the number that best represents your answer.)

| 1 | 2 | 3 | 4 | 5 | 6 |
|---|---|---|---|---|---|
| Very easy | | Just right for me | | | Very difficult |

**Academic Prep**
**Reading Fluency Post Test, Form B**

Name _____

Teacher _____

## Into the Black Hole and Beyond

We have all seen thrilling science-fiction movies in which astronauts dispatched into space plunge into black holes, never to be seen again, or they emerge from black holes, or even travel through time! When these time-traveling astronauts arrive home, they are still young but quickly figure out that hundreds of years have gone by on Earth. In reality, no manned spacecraft has ever approached a black hole. They are far too distant to be a real danger. While science has nudged a bit closer to understanding black holes, they remain mysterious enough to tease and inspire movie producers and scientists alike.

A black hole is the remnant of a huge star that dies. A star is made of gas, and because it is so massive, there is a powerful gravitational field at its core that is constantly working to collapse it. The balance between the gravitational pull of enormous mass and the force of interior explosions defines the size of a star.

When all the gases burn up, these reactions at the star's core stop, making the star's existence unsustainable. At the same time, the star's gravity pulls material toward its core, collapsing it. As the dying star tips the balance between reaction and collapse and the core begins compressing, it heats up. Eventually, the heat creates an enormous explosion in which the star's radiation is expelled into space. This does not leave the star dormant. What remains is its core. The gravity created by this gigantic core is so great that nothing, not even light, can escape.

Because light cannot escape, the core disappears from view. It is now called a black hole. Once something passes the event horizon of the black hole, it disappears. This is where science fiction gets the extraordinary idea that entrance into a black hole would bring time to a standstill.

How can black holes be found and studied if they are not visible? Even though black holes remain a mystery, they can be detected by perusing neighboring objects that display odd behaviors. If, for example, a disk of gas or a star has a wobbling or spinning motion, there is no visible reason for this motion, and the motion seems to be caused by an object with a mass greater than that of three suns, then it is possible that a black hole is causing the unusual behavior.

Astronomers have no idea what happens to an object when it disappears into a black hole. This contemplation is what fuels the creative explorations of black holes in movies and on TV.

Far from a dreary subject, black holes have intrigued astronomers and science fiction writers since they were first theorized in about 1795. The notion that black holes are huge vacuum cleaners, sucking up moisture and eating everything around them, is fantastical. The idea that they are mediums for time travel belongs not to science, but to science fiction. Nevertheless, what lies beyond the entrance to the black hole remains a mystery. Black holes are, perhaps, the most intriguing objects in space.

**Reading time: _____**

How difficult was this reading for you? (Circle the number that best represents your answer.)

| 1 | 2 | 3 | 4 | 5 | 6 |
|---|---|---|---|---|---|
| Very easy | | Just right for me | | | Very difficult |

**Academic Prep**
**Reading Fluency Post Test, Form B**

## Comprehension Test

***Without looking back at the reading, circle the best answer for each item. Do not look back at the passage.***

1. Which of the following statements is true about black holes?
   a. They allow for time travel.
   b. We do not have a great understanding of them.
   c. Scientists have seen them.
   d. Astronauts have disappeared down black holes.

2. According to the article, how does a star die?
   a. It catches on fire.
   b. It disappears into a black hole.
   c. It disintegrates.
   d. Its gases burn out.

3. According to the passage, how can a black hole be "seen"?
   a. By its wobbling motion.
   b. By the movement of neighboring objects.
   c. With the naked eye.
   d. Through a telescope.

4. An object will be drawn into a black hole if it passes the
   a. event horizon.
   b. ergosphere.
   c. static limit.
   d. star.

5. Summarize the process of how a black hole is formed by placing the following statements in the correct order.

   Statement 1: The star's core collapses.
   Statement 2: The core's gravity captures light so it disappears.
   Statement 3: The gases in a star burn out.
   Statement 4: It heats up and explodes.

   a. 1, 2, 3, 4
   b. 3, 1, 4, 2
   c. 4, 3, 1, 2
   d. 2, 3, 1, 4

6. The word COMTEMPLATION is closest in meaning to
   a. temptation
   b. question
   c. fact
   d. speculation

7. Why can't we see a black hole?
   a. It is too small.
   b. It emits no light.
   c. It is too big.
   d. It spins too fast.

8. Summarize the passage by placing the following statements in the correct order:
   Statement 1: A black hole is a dead star with a gigantic gravitational core.
   Statement 2: We do not know what happens to an object when it disappears into a black hole.
   Statement 3: There are many thrilling moves made about black holes, but little is really known about them.
   Statement 4: Movie directors know what happens in a black hole,
   Statement 5: There are ways to study invisible black holes.
   Statement 6: Science fiction movies about black holes can be frightening.

   a. 1, 5, 3, 4
   b. 4, 6, 2, 5
   c. 3, 1, 5, 2
   d. 6, 4, 1, 2

**Comprehension Score: ____ / 8**

How difficult were the comprehension questions for you? (Circle the number that best represents your answer.)

| 1 | 2 | 3 | 4 | 5 | 6 |
|---|---|---|---|---|---|
| Very easy | | Just right for me | | | Very difficult |

**Academic A**
**Reading Fluency Post Test, Form B**

Name _____

Teacher _____

## Nelson Mandela and Democracy in South Africa

In the history of South Africa, Nelson Mandela is a key person and 1994 is a key year. Until then, a small minority of white people governed South Africa and blacks were forced to live separately from whites. In 1948, the white government had made the separation of races official with a policy called apartheid. Black South Africans were not allowed to live in the same area or go to the same schools or churches as white people. Blacks had to carry identification papers, and the government controlled their movement and their employment.

When the apartheid policy began, Nelson Mandela was thirty years old. He had completed law school, and together with his friend Oliver Tambo, he opened a law office-the first blacks to do so in their country. Mandela and Tambo disagreed with the policy of apartheid and they began working to try to change it. They became leaders of the African National Congress (ANC), a movement of blacks and whites for democratic political change.

The white government did not like the ideas of the ANC and soon it was banned (made illegal). However, Mandela and other members of the ANC continued to work against apartheid, leading large demonstrations and rallies. Mandela became the leader of the military wing of the ANC, and he traveled to Algeria for military training. Upon his return to South Africa in 1962, he was arrested and sent to prison.

While Mandela was in prison, other ANC leaders were arrested for fighting against the government. In June 1964, Mandela and the other leaders were all sent to South Africa's worst and most dangerous prison, on Robben Island. But still they managed to keep in contact with the antiapartheid movement and they did not give up hope. Mandela wrote his autobiography and sent it out of the prison with visitors, piece by piece.

Other members of the ANC told people around the world about Mandela and his struggle against apartheid. Many countries stopped doing business with South Africa. World leaders demanded that Mandela be released from prison. Finally, F.W. deKlerk, the white president of South Africa, decided to release him and allow the ANC to meet again. In February 1990, Nelson Mandela walked out of prison, a free man after twenty-eight years!

Mandela took over the leadership of the ANC once again and led talks with the white government for an end to apartheid. Many people feared that the white government would refuse to give up power and there would be a terrible war, a "blood bath." However, working together, Mandela and deKlerk were able to bring peaceful democratic change to their country. They were awarded the Nobel Peace Prize for this achievement.

The next year, 1994, the first multiracial elections were held, and Nelson Mandela was elected president. At the end of his term as president in 1999, new elections were held and another black man, Thabo Mbeki, was elected. After his election, President Mbeki remarked, "One democratically elected president was followed by another, the true test of democracy."

Source: Mikulecky, B. S., & Jeffries, L. (2004). *More reading power* (pp. 213-214). White Plains, NY: Pearson.

**Reading time: _____**

How difficult was the reading for you? (Circle the number that best represents your answer."

| 1 | 2 | 3 | 4 | 5 | 6 |
|---|---|---|---|---|---|
| Very easy | | Just right for me | | | Very difficult |

**Academic A**
**Reading Fluency Post Test, Form B**

## Comprehension Test

***Without looking at the reading, circle the best answer for each item. Do not look back at the passage.***

1. This passage is about
   e. the policy of apartheid in South Africa.
   f. events in the history of South Africa.
   g. how black South Africans fought against apartheid.
   h. how Mandela brought democracy to South Africa.

2. Under the apartheid policy, black South Africans could not
   e. go to school or church.
   f. live where white people lived.
   g. carry identification papers.
   h. work for white people.

3. We can infer from this passage that
   e. many South African blacks supported the ANC.
   f. the ANC was not popular with South African blacks.
   g. other African countries were against the ANC.
   h. Mandela and Tambo disagreed with the ANC.

4. The white government of South Africa banned the ANC because it
   e. was a foreign organization.
   f. had no white members.
   g. wanted to change the government.
   h. wanted to make Mandela the president.

5. After Mandela returned from military training in Algeria, he
   e. was elected president.
   f. was arrested and sent to prison.
   g. began working to change apartheid.
   h. opened a law office with Oliver Tambo.

6. During his years in prison, Mandela
   e. wrote his autobiography.
   f. stopped working for the ANC.
   g. had no contact with the world.
   h. disagreed with Oliver Tambo.

7. Mandela was released from prison partly because of
   e. winning the Nobel Prize.
   f. the help of Thabo Mbeki.
   g. pressure from other countries.
   h. problems with his health.

8. Mandela's goal for South Africa was to have a
   e. government controlled by blacks.
   f. war against the government.
   g. military government.
   h. democratic government.

**Comprehension Score: _____ / 8**

How difficult were the comprehension questions for you? (Circle the number that best represents your answer.)

| 1 | 2 | 3 | 4 | 5 | 6 |
|---|---|---|---|---|---|
| Very easy | | Just right for me | | | Very difficult |

**Academic B**
**Reading Fluency Post Test, Form B**

Name _____

Teacher _____

## The Tomb of King Tut
## By Henry and Melissa Billings

OnNovember 4, 1922, archaeologist Howard Carter dragged himself out of bed. Would it be another day of failure in the choking dust and searing heat of Egypt's Valley of the Kings? For 15 years Carter had been searching for the tomb of King Tutankhamen, often called simply King Tut. If he didn't find it soon, he might have to give up.

Luckily, however, this day would be different. The workers, who had begun digging earlier that morning, had found something. It was a stone step about six feet long. Carter knew almost immediately that it was part of a sunken staircase. Did it lead to King Tut's tomb? Carter took that day and the next to dig-carefully and slowlydown to the 12th step. There he found a doorway. The seals on the outer door, made 3,000 years earlier, proved it was a royal tomb and that its contents were intact.

Excitedly, Carter sent an urgent telegram to his financial backer and partner, Lord Carnarvon, who was in England. "At last have made wonderful discovery in Valley. Congratulations," he wrote. Carter knew that Carnarvon would want to share in the thrill of opening and entering the tomb. So he covered the stairway with dirt again to protect the tomb from thieves and waited for Lord Carnarvon's arrival.

Eighteen days later Lord Carnarvon arrived from England. The two men began uncovering the stairway once more. On November 25, they reached the outer door of the tomb. The next day they arrived at the inner door. "Feverishly," Carter later wrote, "we cleared away the remaining last scraps of rubbish on the floor of the passage before the doorway." They then saw the royal seal of Tutankhamen pressed into the plaster. There was no mistake-this was it! Carter's years of toil and failure had turned into triumph. "The day of days," were the words Carter used to describe this moment, "the most wonderful that I have ever lived through."

Fighting to control his excitement, Carter used a knife to make a small hole in the top of the door. He took a lighted candle and peered inside. "At first I could see nothing . . . , but presently, as my eyes grew accustomed to the light, details of the room emerged slowly from the mist, strange animals, statues and gold-everywhere the glint of gold."

Carter stood in awed silence. "For the moment-an eternity it must have seemed to the others standing by - I was struck dumb with amazement."

Lord Carnarvon, unable to stand the suspense any longer, called out from behind Carter, "Can you see anything?"

"Yes, it is wonderful," was all Carter could say. Howard Carter had unearthed the greatest treasure ever found in Egypt. The four rock-hewn rooms held more than 5,000 objects. It took Carter two months to reach the highlight of his discovery-the burial room. There he found a solid 22-carat gold coffin weighing 2,448 pounds. He also found what is now the most famous item in the tomb-

the extraordinary golden mask which covered King Tut's mummified head.

As was the custom in his day, King Tutankhamen had been buried with everything he might need to make him happy in the afterlife. His tomb was crammed with games, lamps, boats, jars of honey, flowers, statues of gods and goddesses, bows and arrows, baskets, jewels, clothes, and chairs. The tomb also contained two golden chariots which were so large they had to be taken apart to fit into the tomb. He was even buried with a lock of his grandmother's hair. Carter wrote, "So crowded [was the tomb] that it was a matter of extreme difficulty to move one [precious item] without running serious risk of damaging others." Searchers worked patiently and carefully for 10 years to excavate the entire tomb. The contents of the tomb are now on display at the Egyptian Museum in Cairo.

While other pharaohs had similar tombs, these other resting places had all been robbed eons ago. King Tut's was the only tomb that was left almost completely untouched.

Why was this tomb left alone? One theory is that King Tutankhamen was only a minor figure in Egyptian history. He came to the throne in 1352 B.C. and died nine years later at the age of 18. Perhaps big-time grave robbers passed over his tomb for the riches of more tempting targets. Or perhaps his underground tomb was too well covered to be noticed. After all, the tomb of another pharaoh, Ramses VI, was built right next door just 200 years later. During the building of Ramses's tomb, workers lived in huts erected over King Tut's tomb. The huts later fell to rubble, obscuring King Tut's burial site. In addition, much of the dirt for Ramses's tomb was dumped on the entrance to Tut's tomb.

When Carter began his excavation of Tut's tomb, some people proclaimed that breaking into it would bring bad luck. Dire inscriptions etched on the tomb warned that anyone who disturbed the king's tomb would be punished. The newspapers in London dubbed the warning "The Curse of the Pharaoh." And in fact, barely six weeks after the discovery of Tutankhamen's tomb, Lord Carnarvon died. He died from a mosquito bite which caused a blood infection. There's more. During the night Carnarvon lay dying in Cairo, the city went black from a mysterious power failure. At the same time, back in London, Carnarvon's dog gave a weird howl and then rolled over dead. Over the years, there were other deaths and suicides among people linked to the tomb.

Still, Howard Carter himself said that the "curse" was nonsense. If anyone was going to be cursed, he figured, it should have been him. But the great archaeologist died of natural causes at the age of 64 at his home in London on March 2, 1939.

Source: Fry, E. B. (2000). *Advanced level reading drills* (pp. 9-11). Lincolnwood, IL: Jamestown Publishers.

**Reading time: _____**

How difficult was the reading for you? (Circle the number that best represents your answer."

| 1 | 2 | 3 | 4 | 5 | 6 |
|---|---|---|---|---|---|
| Very easy | | Just right for me | | | Very difficult |

**Academic B**
**Reading Fluency Post Test, Form B**

## Comprehension Test

***Without looking at the reading, circle the best answer for each item. Do not look back at the passage.***

1. Howard Carter had searched for the tomb of King Tutankhamen for
   a. 6 years.
   b. 10 years.
   c. 15 years.
   d. 21 years.

2. Who was Lord Carnarvon?
   a. an official of the British government
   b. an English archaeologist
   c. Howard Carter's supervisor
   d. Howard Carter's financial backer
3. The door of Tut's tomb was decorated with
   a. pictures of gods and goddesses.
   b. jewels.
   c. the royal seal.
   d. gold letters.
4. What was the most famous item in the tomb?
   a. a golden chariot.
   b. the pharaoh's boat.
   c. a golden mask.
   d. a lock of Ling Tut's grandmother's hair.
5. How long did it take to excavate the tomb?
   a. 6 months
   b. 2 years
   c. 5 years
   d. 10 years

6. Where are most items from the tomb on display?
   a. Egyptian Museum in Cairo.
   b. British Museum in London.
   c. Field Museum of Natural History in Chicago.
   d. Smithsonian Institution in Washington, D. C.
7. Why was King Tut's tomb left untouched by grave robbers?
   a. Thieves were probably frightened away.
   b. Thieves could not find the tomb.
   c. The tomb was heavily guarded.
   d. "The Curse of the Pharaoh" killed all those that tried to rob it.

8. King Tut died at the age of
   a. 9.
   b. 18.
   c. 31.
   d. 64.

11. The tomb of the pharaoh Ramses VI was built
   e. 200 years after King Tut's tomb.
   f. 200 years before King Tut's tomb.
   g. at the same time as King Tut's tomb.
   h. 3,000 years before King Tut's tomb.

12. Lord Carnarvon died of
   a. injuries he received in a fall in the tomb.
   b. an infection caused by a mosquito bite.
   c. a virus he picked up from the stale air in the tomb.
   d. natural causes from old age.

**Comprehension Score: _____ / 10**

How difficult were the comprehension questions for you? (Circle the number that best represents your answer.)

| 1 | 2 | 3 | 4 | 5 | 6 |
|---|---|---|---|---|---|
| Very easy | | Just right for me | | | Very difficult |

**Academic C**
**Reading Fluency Post Test, Form B**

Name _____

Teacher _____

## Shot Down Behind Enemy Lines

Among the many traditions of the United States military, there is one of which its members are particularly proud. Whenever one of their own is in grave danger, every possible means is used to rescue him or her from that danger. An example of this tradition in action is described in this selection.

In February 1991, Captain Scott O'Grady found himself alone, cold, and hungry in the mountains of Washington State. He had to eat black ants and grasshoppers in order to survive. He had to start fires using the rays of the sun. He also had to make tools out of tree branches. And to ward off boredom, he played "entire rounds of golf and chess" in his mind. Yes, it was a brutal and grueling test for O'Grady, but it was only a test. The jet pilot was taking the U.S. Air Force's three-week Survival, Evasion, Resistance, and Escape (SERE) course just in case he ever needed these skills.

He did. On June 2, 1995, Captain O'Grady took off in his F-16 jet fighter for a routine air patrol over Bosnia. On this mission, Captain Bob Wright flew alongside in a second F-16. Both pilots were part of a multinational military force that was trying to stop Serbian attacks in Bosnia.

As O'Grady and Wright flew their patrol, the Serbs launched two surface-to-air missiles at the two F-16s. O'Grady's instruments picked up the incoming missiles, but he could not see them because the sky was cloudy. One missile exploded in the air, doing no harm to either plane, but the second missile sheared O'Grady's jet in half. As the front section of the jet tumbled toward the ground, O'Grady pulled a special cord that blew away his canopy and ejected him from the cockpit. He then parachuted into the Serb-held hills of western Bosnia.

Right after landing, O'Grady got rid of his parachute and dashed into the woods hoping to avoid being caught. He fell face down on the ground and covered his head and ears with his camouflaged gloves to make himself harder to see. Civilians and soldiers were all around. Once O'Grady saw armed soldiers walking nearby. He whispered a silent prayer thanking them for *not* having sniffing dogs.

Now O'Grady really needed the training he had received in the SERE course. He had the necessary equipment to evade the enemy and to survive for several days – a radio, a compass, flares, a first-aid kit, a knife, a pistol, and other such items. And the SERE course had taught him how to live off the land. He used a sponge to soak up rain water, and he ate grass, bugs, and grasshoppers. He slept during the day, hidden under a camouflaged cover, and traveled only after midnight.

O'Grady didn't use his radio to call for help right away. His training had taught him that downed pilots are often captured because they radio too soon, giving away their position. So he watched and waited for the right time. After 5 ½ days, O'Grady finally took a chance and at 2:08 A.M. on June 8, broadcast his call sign: "Basher 52." His voice was picked up by a patrolling F-16 jet. This was the first time anyone actually knew that O'Grady had survived the missile attack and was still alive. Captain Wright had last seen him going down through the clouds and hadn't seen his parachute open.

A rescue operation had already been planned just in case O'Grady was still alive. It was a huge effort involving 40 aircraft, a half-dozen ships, and more than 100 soldiers. There was a primary team as well as backup teams – all willing to risk their lives to save the downed pilot. As it turned out, the backup teams were not needed because the primary team did its job so well.

At 5:50 A.M., less than three hours after O'Grady's message was received, the rescue got underway. Two Super Stallion helicopters, two Super Cobra helicopters, and four jet fighters took off from a ship in the Adriatic Sea. Each aircraft had a special job to do. The Super Stallions carried a total of 40 combat Marines. They would land and rescue O'Grady. The two Super Cobra gunships, armed with missiles and machine guns, would hover overhead and deal with any enemy who might show up. Ad the jets would provide additional air support.

As the choppers moved into position, the Marines aboard spotted a yellow smoke signal – O'Grady's sign. The Super Stallions landed within 50 yards of his hiding place. The 40 Marines piled out and formed a tight defensive circle. Moments later, O'Grady rushed out of the bushes. He appeared to be very cold, so one Marine gave him a blanket. Then he was helped into one of the choppers. From touchdown to takeoff, the rescue took less than two minutes. It was perfect – a "textbook" rescue.

Colonel Martin Berndt, the commander of the rescue team, later said, "To see him [Captain O'Grady] running through the brush covered with sweat, with his pistol in his hand making his way to the aircraft, [was] not a scene that I'll soon forget."

Still, the whole enterprise could have ended in disaster. After all, they were in Serb-held territory. Shortly after O'Grady was picked up, Serbs fired one or maybe two missiles at the choppers, but they both missed. The Serbs also fired on the choppers with automatic weapons. Luckily, they left nothing but a few holes; everyone escaped unharmed.

After O'Grady was safely back on American soil, President Bill Clinton called to congratulate him. The President also told the media that the pilot was "one amazing kid." But Captain Scott O'Grady saw things differently. To him, the real heroes were the men who cam to rescue him. "They say they were just doing their job," he said. "But they risked their lives to get me out. If you want to find some heroes, that's where you should look."

Source: Fry, Edward B. (2000). *Advanced Level Reading Drills* (pp. 95-96). Lincolnwood (Chicago), IL: Jamestown Publishers.

**Reading time: _____**

How difficult was the reading for you? (Circle the number that best represents your answer."

| 1 | 2 | 3 | 4 | 5 | 6 |
|---|---|---|---|---|---|
| Very easy | | Just right for me | | | Very difficult |

**Academic C**
**Reading Fluency Post Test, Form B**

## Comprehension Test

***Without looking at the reading, circle the best answer for each item. Do not look back at the passage.***

1. SERE stands for
   a. Survival, Evasion, Resistance, and Escape.
   b. Staying Ever Ready to Escape.
   c. Surviving Every Returning Enemy.
   d. Surviving Enemy Retaliation with Energy.

2. Captain O'Grady was the pilot of a
   a. jet figher.
   b. reconnaissance plane.
   c. air transport plane.
   d. helicopter.
3. Captain O'Grady was on a routine flying mission over
   a. Serbia.
   b. Somalia.
   c. Washington State.
   d. Bosnia.
4. Captain O'Grady's plane was shot down by
   a. anti-aircraft guns.
   b. an air-to-air missile from an enemy plane.
   c. surface-to-air missiles.
   d. automatic-weapons fire from soldiers on the ground.
5. O'Grady landed in an area that was held by
   a. United Nations forces.
   b. Serbs.
   c. United States.
   d. NATO forces.

6. O'Grady was very fortunate that the soldiers did not have any
   a. weapons.
   b. observation towers.
   c. interest in finding him.
   d. sniffing dogs.
7. When did Captain O'Grady travel?
   a. only after midnight.
   b. only after sunrise.
   c. just before sunset.
   d. only on foggy days.

8. O'Grady did not use his radio
   a. at all.
   b. for at least two weeks.
   c. for five hours.
   d. for more than five days.

9. How far from O'Grady's hiding place did the rescue team land?
   a. one-half mile
   b. 100 yards
   c. 50 yards
   d. 25 yards

10. To help the rescue team find his exact location, O'Grady used a
   a. flashing light.
   b. signal flag.
   c. flare gun.
   d. yellow smoke signal.

**Comprehension Score: _____ / 8**

How difficult were the comprehension questions for you? (Circle the number that best represents your answer.)

| 1 | 2 | 3 | 4 | 5 | 6 |
|---|---|---|---|---|---|
| Very easy | | Just right for me | | Very difficult | |

# Appendix H

**Foundations A**
**Reading Fluency Posttest**

## Scoring Guidelines

### Words-per-minute

| Time | wpm |
|---|---|
| 1:00 | 250 |
| 1:15 | 200 |
| 1:30 | 167 |
| 1:45 | 143 |
| 2:00 | 125 |
| 2:15 | 111 |
| 2:30 | 100 |
| 2:45 | 91 |
| 3:00 | 83 |
| 3:15 | 77 |
| 3:30 | 71 |
| 3:45 | 67 |
| 4:00 | 63 |
| 4:15 | 59 |
| 4:30 | 56 |
| 4:45 | 53 |
| 5:00 | 50 |
| 5:15 | 48 |

### Comprehension Test Answers

1. D
2. C
3. A
4. D
5. B
6. D
7. B
8. C

1 correct = 13%
2 correct = 25%
3 correct = 38%
4 correct = 50%
5 correct = 63%
6 correct = 75%
7 correct = 88%
8 correct = 100%

**Foundations B**
**Reading Fluency Posttest**

# Scoring Guidelines

## Words-per-minute

| Time | wpm | Time | wpm |
|---|---|---|---|
| 1:00 | 350 | 4:00 | 88 |
| 1:15 | 280 | 4:15 | 82 |
| 1:30 | 233 | 4:30 | 78 |
| 1:45 | 200 | 4:45 | 74 |
| 2:00 | 175 | 5:00 | 70 |
| 2:15 | 156 | 5:15 | 67 |
| 2:30 | 140 | 5:30 | 64 |
| 2:45 | 127 | 5:45 | 61 |
| 3:00 | 117 | 6:00 | 58 |
| 3:15 | 108 | 6:15 | 56 |
| 3:30 | 100 | 6:30 | 54 |
| 3:45 | 93 | 6:45 | 52 |
| | | 7:00 | 50 |

## Comprehension Test Answers

1. B
2. C
3. D
4. C
5. A
6. B
7. D
8. A

1 correct = 13%
2 correct = 25%
3 correct = 38%
4 correct = 50%
5 correct = 63%
6 correct = 75%
7 correct = 88%
8 correct = 100%

**Foundations C**
**Reading Fluency Posttest**

# Scoring Guidelines

## Words-per-minute

| Time | wpm | Time | wpm |
|---|---|---|---|
| 1:00 | 500 | 5:30 | 91 |
| 1:15 | 400 | 5:45 | 87 |
| 1:30 | 333 | 6:00 | 83 |
| 1:45 | 286 | 6:15 | 80 |
| 2:00 | 250 | 6:30 | 77 |
| 2:15 | 222 | 6:45 | 74 |
| 2:30 | 200 | 7:00 | 71 |
| 2:45 | 182 | 7:15 | 69 |
| 3:00 | 167 | 7:30 | 67 |
| 3:15 | 153 | 7:45 | 65 |
| 3:30 | 143 | 8:00 | 63 |
| 3:45 | 133 | 8:15 | 61 |
| 4:00 | 125 | 8:30 | 59 |
| 4:15 | 118 | 8:45 | 57 |
| 4:30 | 111 | 9:00 | 56 |
| 4:45 | 105 | 9:15 | 54 |
| 5:00 | 100 | 9:30 | 53 |
| 5:15 | 95 | 9:45 | 51 |

## Comprehension Test Answers

1. A
2. D
3. C
4. B
5. A
6. C
7. B
8. B

1 correct = 13%
2 correct = 25%
3 correct = 38%
4 correct = 50%
5 correct = 63%
6 correct = 75%
7 correct = 88%
8 correct = 100%

**Academic Prep**
**Reading Fluency Posttest**

# Scoring Guidelines

## Words-per-minute

| | | | |
|---|---|---|---|
| 1:00 | 500 | 5:30 | 91 |
| 1:15 | 400 | 5:45 | 87 |
| 1:30 | 333 | 6:00 | 83 |
| 1:45 | 286 | 6:15 | 80 |
| 2:00 | 250 | 6:30 | 77 |
| 2:15 | 222 | 6:45 | 74 |
| 2:30 | 200 | 7:00 | 71 |
| 2:45 | 182 | 7:15 | 69 |
| 3:00 | 167 | 7:30 | 67 |
| 3:15 | 153 | 7:45 | 65 |
| 3:30 | 143 | 8:00 | 63 |
| 3:45 | 133 | 8:15 | 61 |
| 4:00 | 125 | 8:30 | 59 |
| 4:15 | 118 | 8:45 | 57 |
| 4:30 | 111 | 9:00 | 56 |
| 4:45 | 105 | 9:15 | 54 |
| 5:00 | 100 | 9:30 | 53 |
| 5:15 | 95 | 9:45 | 51 |

## Comprehension Test Answers

1. B
2. C
3. D
4. D
5. A
6. C
7. A
8. B

1 correct = 13%
2 correct = 25%
3 correct = 38%
4 correct = 50%
5 correct = 63%
6 correct = 75%
7 correct = 88%
8 correct = 100%

**Academic A**
**Reading Fluency Posttest**

# Scoring Guidelines

## Words-per-minute

| Time | wpm | Time | wpm |
|---|---|---|---|
| 1:00 | 500 | 5:30 | 91 |
| 1:15 | 400 | 5:45 | 87 |
| 1:30 | 333 | 6:00 | 83 |
| 1:45 | 286 | 6:15 | 80 |
| 2:00 | 250 | 6:30 | 77 |
| 2:15 | 222 | 6:45 | 74 |
| 2:30 | 200 | 7:00 | 71 |
| 2:45 | 182 | 7:15 | 69 |
| 3:00 | 167 | 7:30 | 67 |
| 3:15 | 153 | 7:45 | 65 |
| 3:30 | 143 | 8:00 | 63 |
| 3:45 | 133 | 8:15 | 61 |
| 4:00 | 125 | 8:30 | 59 |
| 4:15 | 118 | 8:45 | 57 |
| 4:30 | 111 | 9:00 | 56 |
| 4:45 | 105 | 9:15 | 54 |
| 5:00 | 100 | 9:30 | 53 |
| 5:15 | 95 | 9:45 | 51 |

## Comprehension Test Answers

1. C
2. C
3. A
4. D
5. D
6. B
7. C
8. A

1 correct = 13%
2 correct = 25%
3 correct = 38%
4 correct = 50%
5 correct = 63%
6 correct = 75%
7 correct = 88%
8 correct = 100%

**Academic B**
**Reading Fluency Posttest**

# Scoring Guidelines

## Words-per-minute

| Time | wpm | Time | wpm |
|---|---|---|---|
| 1:00 | 500 | 5:30 | 91 |
| 1:15 | 400 | 5:45 | 87 |
| 1:30 | 333 | 6:00 | 83 |
| 1:45 | 286 | 6:15 | 80 |
| 2:00 | 250 | 6:30 | 77 |
| 2:15 | 222 | 6:45 | 74 |
| 2:30 | 200 | 7:00 | 71 |
| 2:45 | 182 | 7:15 | 69 |
| 3:00 | 167 | 7:30 | 67 |
| 3:15 | 153 | 7:45 | 65 |
| 3:30 | 143 | 8:00 | 63 |
| 3:45 | 133 | 8:15 | 61 |
| 4:00 | 125 | 8:30 | 59 |
| 4:15 | 118 | 8:45 | 57 |
| 4:30 | 111 | 9:00 | 56 |
| 4:45 | 105 | 9:15 | 54 |
| 5:00 | 100 | 9:30 | 53 |
| 5:15 | 95 | 9:45 | 51 |

## Comprehension Test Answers

1. B
2. C
3. A
4. B
5. D
6. C
7. B
8. C

1 correct = 13%
2 correct = 25%
3 correct = 38%
4 correct = 50%
5 correct = 63%
6 correct = 75%
7 correct = 88%
8 correct = 100%

**Academic C**
**Reading Fluency Posttest**

# Scoring Guidelines

## Words-per-minute

| Time | wpm | Time | wpm | Time | wpm |
|---|---|---|---|---|---|
| 1:00 | 1,000 | 5:30 | 182 | 10:00 | 100 |
| 1:15 | 800 | 5:45 | 174 | 10:15 | 98 |
| 1:30 | 667 | 6:00 | 167 | 10:30 | 95 |
| 1:45 | 571 | 6:15 | 160 | 10:45 | 93 |
| 2:00 | 500 | 6:30 | 154 | 11:00 | 91 |
| 2:15 | 445 | 6:45 | 148 | 11:15 | 89 |
| 2:30 | 400 | 7:00 | 143 | 11:30 | 87 |
| 2:45 | 364 | 7:15 | 138 | 11:45 | 85 |
| 3:00 | 333 | 7:30 | 133 | 12:00 | 83 |
| 3:15 | 308 | 7:45 | 129 | 12:15 | 82 |
| 3:30 | 286 | 8:00 | 125 | 12:30 | 80 |
| 3:45 | 267 | 8:15 | 121 | 12:45 | 78 |
| 4:00 | 250 | 8:30 | 118 | 13:00 | 77 |
| 4:15 | 235 | 8:45 | 114 | 13:15 | 76 |
| 4:30 | 222 | 9:00 | 111 | 13:30 | 74 |
| 4:45 | 211 | 9:15 | 108 | 13:45 | 73 |
| 5:00 | 200 | 9:30 | 105 | 14:00 | 71 |
| 5:15 | 190 | 9:45 | 103 | | |

## Comprehension Test Answers

1. C
2. A
3. C
4. D
5. D
6. B
7. A
8. B
9. C
10. A

1 correct = 10%
2 correct = 20%
3 correct = 30%
4 correct = 40%
5 correct = 50%
6 correct = 60%
7 correct = 70%
8 correct = 80%
9 correct = 90%
10 correct = 100%

**Foundations A**
**Reading Fluency Posttest, Form B**

# Scoring Guidelines

## Words-per-minute

| Time | wpm |
|---|---|
| 1:00 | 250 |
| 1:15 | 200 |
| 1:30 | 167 |
| 1:45 | 143 |
| 2:00 | 125 |
| 2:15 | 111 |
| 2:30 | 100 |
| 2:45 | 91 |
| 3:00 | 83 |
| 3:15 | 77 |
| 3:30 | 71 |
| 3:45 | 67 |
| 4:00 | 63 |
| 4:15 | 59 |
| 4:30 | 56 |
| 4:45 | 53 |
| 5:00 | 50 |
| 5:15 | 48 |

## Comprehension Test Answers

1. B
2. D
3. B
4. C
5. B
6. C
7. A
8. D

1 correct = 13%
2 correct = 25%
3 correct = 38%
4 correct = 50%
5 correct = 63%
6 correct = 75%
7 correct = 88%
8 correct = 100%

**Foundations B**
**Reading Fluency Posttest, Form B**

# Scoring Guidelines

## Words-per-minute

| Time | wpm | Ttime | wpm |
|---|---|---|---|
| 1:00 | 350 | 4:00 | 88 |
| 1:15 | 280 | 4:15 | 82 |
| 1:30 | 233 | 4:30 | 78 |
| 1:45 | 200 | 4:45 | 74 |
| 2:00 | 175 | 5:00 | 70 |
| 2:15 | 156 | 5:15 | 67 |
| 2:30 | 140 | 5:30 | 64 |
| 2:45 | 127 | 5:45 | 61 |
| 3:00 | 117 | 6:00 | 58 |
| 3:15 | 108 | 6:15 | 56 |
| 3:30 | 100 | 6:30 | 54 |
| 3:45 | 93 | 6:45 | 52 |

## Comprehension Test Answers

1. C
2. B
3. D
4. C
5. D
6. A
7. B
8. C

1 correct = 13%
2 correct = 25%
3 correct = 38%
4 correct = 50%
5 correct = 63%
6 correct = 75%
7 correct = 88%
8 correct = 100%

**Foundations C**
**Reading Fluency Posttest, Form B**

# Scoring Guidelines

## Words-per-minute

| Time | wpm | Time | wpm |
|---|---|---|---|
| 1:00 | 500 | 5:30 | 91 |
| 1:15 | 400 | 5:45 | 87 |
| 1:30 | 333 | 6:00 | 83 |
| 1:45 | 286 | 6:15 | 80 |
| 2:00 | 250 | 6:30 | 77 |
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| 2:30 | 200 | 7:00 | 71 |
| 2:45 | 182 | 7:15 | 69 |
| 3:00 | 167 | 7:30 | 67 |
| 3:15 | 153 | 7:45 | 65 |
| 3:30 | 143 | 8:00 | 63 |
| 3:45 | 133 | 8:15 | 61 |
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| 4:15 | 118 | 8:45 | 57 |
| 4:30 | 111 | 9:00 | 56 |
| 4:45 | 105 | 9:15 | 54 |
| 5:00 | 100 | 9:30 | 53 |
| 5:15 | 95 | 9:45 | 51 |

## Comprehension Test Answers

1. B
2. B
3. C
4. A
5. A
6. D
7. A
8. C

1 correct = 13%
2 correct = 25%
3 correct = 38%
4 correct = 50%
5 correct = 63%
6 correct = 75%
7 correct = 88%
8 correct = 100%

**Academic Prep**
**Reading Fluency Posttest, Form B**

# Scoring Guidelines

## Words-per-minute

| | | | |
|---|---|---|---|
| 1:00 | 500 | 5:30 | 91 |
| 1:15 | 400 | 5:45 | 87 |
| 1:30 | 333 | 6:00 | 83 |
| 1:45 | 286 | 6:15 | 80 |
| 2:00 | 250 | 6:30 | 77 |
| 2:15 | 222 | 6:45 | 74 |
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| 2:45 | 182 | 7:15 | 69 |
| 3:00 | 167 | 7:30 | 67 |
| 3:15 | 153 | 7:45 | 65 |
| 3:30 | 143 | 8:00 | 63 |
| 3:45 | 133 | 8:15 | 61 |
| 4:00 | 125 | 8:30 | 59 |
| 4:15 | 118 | 8:45 | 57 |
| 4:30 | 111 | 9:00 | 56 |
| 4:45 | 105 | 9:15 | 54 |
| 5:00 | 100 | 9:30 | 53 |
| 5:15 | 95 | 9:45 | 51 |

## Comprehension Test Answers

| | |
|---|---|
| 1. B | 5. B |
| 2. D | 6. D |
| 3. B | 7. B |
| 4. A | 8. C |

| | |
|---|---|
| 1 correct = 13% | 5 correct = 63% |
| 2 correct = 25% | 6 correct = 75% |
| 3 correct = 38% | 7 correct = 88% |
| 4 correct = 50% | 8 correct = 100% |

**Academic A**
**Reading Fluency Posttest, Form B**

# Scoring Guidelines

## Words-per-minute

| Time | wpm | Time | wpm |
|---|---|---|---|
| 1:00 | 500 | 5:30 | 91 |
| 1:15 | 400 | 5:45 | 87 |
| 1:30 | 333 | 6:00 | 83 |
| 1:45 | 286 | 6:15 | 80 |
| 2:00 | 250 | 6:30 | 77 |
| 2:15 | 222 | 6:45 | 74 |
| 2:30 | 200 | 7:00 | 71 |
| 2:45 | 182 | 7:15 | 69 |
| 3:00 | 167 | 7:30 | 67 |
| 3:15 | 153 | 7:45 | 65 |
| 3:30 | 143 | 8:00 | 63 |
| 3:45 | 133 | 8:15 | 61 |
| 4:00 | 125 | 8:30 | 59 |
| 4:15 | 118 | 8:45 | 57 |
| 4:30 | 111 | 9:00 | 56 |
| 4:45 | 105 | 9:15 | 54 |
| 5:00 | 100 | 9:30 | 53 |
| 5:15 | 95 | 9:45 | 51 |

## Comprehension Test Answers

1. D
2. B
3. A
4. C
5. B
6. A
7. C
8. D

1 correct = 13%
2 correct = 25%
3 correct = 38%
4 correct = 50%
5 correct = 63%
6 correct = 75%
7 correct = 88%
8 correct = 100%

**Academic B**
**Reading Fluency Post Test, Form B**

# Scoring Guidelines

## Words-per-minute

| Time | wpm | Time | wpm | Time | wpm |
|---|---|---|---|---|---|
| 1:00 | 1,000 | 5:30 | 182 | 10:00 | 100 |
| 1:15 | 800 | 5:45 | 174 | 10:15 | 98 |
| 1:30 | 667 | 6:00 | 167 | 10:30 | 95 |
| 1:45 | 571 | 6:15 | 160 | 10:45 | 93 |
| 2:00 | 500 | 6:30 | 154 | 11:00 | 91 |
| 2:15 | 445 | 6:45 | 148 | 11:15 | 89 |
| 2:30 | 400 | 7:00 | 143 | 11:30 | 87 |
| 2:45 | 364 | 7:15 | 138 | 11:45 | 85 |
| 3:00 | 333 | 7:30 | 133 | 12:00 | 83 |
| 3:15 | 308 | 7:45 | 129 | 12:15 | 82 |
| 3:30 | 286 | 8:00 | 125 | 12:30 | 80 |
| 3:45 | 267 | 8:15 | 121 | 12:45 | 78 |
| 4:00 | 250 | 8:30 | 118 | 13:00 | 77 |
| 4:15 | 235 | 8:45 | 114 | 13:15 | 76 |
| 4:30 | 222 | 9:00 | 111 | 13:30 | 74 |
| 4:45 | 211 | 9:15 | 108 | 13:45 | 73 |
| 5:00 | 200 | 9:30 | 105 | 14:00 | 71 |
| 5:15 | 190 | 9:45 | 103 | | |

## Comprehension Test Answers

1. C
2. D
3. C
4. C
5. D
6. A
7. B
8. B
9. A
10. B

1 correct = 10%
2 correct = 20%
3 correct = 30%
4 correct = 40%
5 correct = 50%
6 correct = 60%
7 correct = 70%
8 correct = 80%
9 correct = 90%
10 correct = 100%

**Academic C**
**Reading Fluency Post Test, Form B**

# Scoring Guidelines

## Words-per-minute

| Time | wpm | Time | wpm | Time | wpm |
|---|---|---|---|---|---|
| 1:00 | 1,000 | 5:30 | 182 | 10:00 | 100 |
| 1:15 | 800 | 5:45 | 174 | 10:15 | 98 |
| 1:30 | 667 | 6:00 | 167 | 10:30 | 95 |
| 1:45 | 571 | 6:15 | 160 | 10:45 | 93 |
| 2:00 | 500 | 6:30 | 154 | 11:00 | 91 |
| 2:15 | 445 | 6:45 | 148 | 11:15 | 89 |
| 2:30 | 400 | 7:00 | 143 | 11:30 | 87 |
| 2:45 | 364 | 7:15 | 138 | 11:45 | 85 |
| 3:00 | 333 | 7:30 | 133 | 12:00 | 83 |
| 3:15 | 308 | 7:45 | 129 | 12:15 | 82 |
| 3:30 | 286 | 8:00 | 125 | 12:30 | 80 |
| 3:45 | 267 | 8:15 | 121 | 12:45 | 78 |
| 4:00 | 250 | 8:30 | 118 | 13:00 | 77 |
| 4:15 | 235 | 8:45 | 114 | 13:15 | 76 |
| 4:30 | 222 | 9:00 | 111 | 13:30 | 74 |
| 4:45 | 211 | 9:15 | 108 | 13:45 | 73 |
| 5:00 | 200 | 9:30 | 105 | 14:00 | 71 |
| 5:15 | 190 | 9:45 | 103 | | |

## Comprehension Test Answers

1. A
2. A
3. D
4. C
5. B
6. D
7. A
8. D
9. C
10. D

1 correct = 10%
2 correct = 20%
3 correct = 30%
4 correct = 40%
5 correct = 50%
6 correct = 60%
7 correct = 70%
8 correct = 80%
9 correct = 90%
10 correct = 100%