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Ciencias de la educación  
Artículo de revisión

*Effect of increasing the reading speed rate on learner`s reading comprehension*

*Efecto de aumentar la velocidad de lectura en la comprensión lectora del alumno*

*Efeito do aumento da velocidade de leitura na compreensão de leitura do aluno*

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## Abstract

This study intends to provide different perspectives related to the influence of reading speed on learner`s reading comprehension. Hence, it used a variety of reliable sources to present those opposite perspectives. This biographical research concludes that reading speed has positive effect on comprehension until certain level, when speed tends to be too fast it seems to present negative effect on comprehension.

**Keywords:** Learners; reading comprehension; reading speed rate.

## Resumen

Este estudio pretende aportar diferentes perspectivas relacionadas con la influencia de la velocidad lectora en la comprensión lectora del alumno. Por lo tanto, utilizó una variedad de fuentes confiables para presentar esas perspectivas opuestas. Esta investigación biográfica concluye que la velocidad de lectura tiene un efecto positivo en la comprensión hasta cierto nivel, cuando la velocidad tiende a ser demasiado rápida parece presentar un efecto negativo en la comprensión.

**Palabras clave:** Aprendices; comprensión lectora; tasa de velocidad de lectura.

## Resumo

Este estudo pretende fornecer diferentes perspectivas relacionadas à influência da velocidade de leitura na compreensão de leitura do aluno. Portanto, ele usou uma variedade de fontes confiáveis para apresentar essas perspectivas opostas. Esta pesquisa biográfica conclui que a velocidade de leitura tem efeito positivo na compreensão até certo nível, quando a velocidade tende a ser muito rápida, parece apresentar efeito negativo na compreensão.

**Palavras-chave:** Alunos; compreensão de leitura; taxa de velocidade de leitura.

## Introduction

Reading is one of the most important skills for academic purpose. According to Jodai and Tahriri (2011), knowing to read adequately is a determinant in the achievement of academic goals. Therefore, being a good reader means that a learner will be able to interact with the writer in a hypothetical form and analyze the message of the writer throughout a cognitive process of

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comparison and establishment of connections between prior and new knowledge to generate meaningful concepts.

Considering the importance of reading in academic assignments, many speed reading strategies were born in order to facilitate readers the ability to cover higher numbers of words in short time; for instance, the Park -Sasaki method of speed reading guarantees an amount of 4120 words per minute; basically, this Japanese-Korean method focuses in meditation with the open eyes to ensure that people can read fast and understand easily. It states that learners can prepare their brains and make respiration exercise to concentrate during the reading process (Miyata, Minagawa-Kawai, Watanabe, Sasaki & Ueda, 2012).

Moreover, Adam and Carpenter (1987) mentioned that speed reading became famous since president John Kennedy manifested that he could read many newspapers fast during the day, because he had learned the speed reading strategy of Evelyn Wood. Since speed reading methods obtained a lot of publicity many web pages, books and training program have emerged such as: Spreeder.com, mindtools.com, speed reading for business by Wade E. Cutler and others, claim that every learner will be able to read fast and with higher levels of understanding by using their speed reading methods. However, many studies showed disagreement along the results of the influence of speed reading in comprehension (Jodai & Tahriri, 2011; Miyata et al., 2012).

### **Objective and methodology**

Taking into consideration the different opinions this bibliographical research intends to answer whether an increasing rate in speed reading affects the comprehension of the text.

### **Discussion**

#### ***Consideration about Reading Comprehension***

Reading is a cognitive and physical process, where the reader intends to internalize the writer`s message by encompassing each letter, decoding words and giving meaning to each chain of words organized in sentences and paragraphs (Ibrahim, Abdul & Siddiqui, 2014). In order to access to the text meaning, it is necessary that readers have developed the word recognition ability. According to Kibui and Wanja (2012), the psycholinguistic model of reading uses a mix of bottom up and top down strategies to make students identify the word, recognize it and relate it to their frame of

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reference in order to guess the meaning in context and as a results they can perform better reading strategies. In other words, once readers have acquired the ability to recognize words and indentify their meaning in context, they will be capable to read faster and with better comprehension. Consequently, while students move forward more complicated text, they can increase their ability to decode new and more complex words and thus expand their lexicon.

The reader`s frame of reference determines the level of word recognition and comprehension. Kibui and Wanja (2012) stated that “Reading is more than a reconstruction of the author meaning. It is the perception of those meanings within the total context of the relevant experiences of the reader” (Kibui & Wanja, 2012, p. 55). In addition, the schema theory states that new concepts interact and associate with previous one to form a group of knowledge or schema, which helps learners to understand a reality and connect with a specific environment. The reader`s schemata is shaped by the culture and context where the reader grew up and it affects his perception, expectation, inferences and interpretation of a text. The schemata make reader predict a situation and responds according to his experiences in similar situations (Kibui & Wanja, 2012). According to Grabe, Stoller and Presley (as cited in Underwood, Myskow & Hattori 2012), readers with higher levels of recognition of English words presented a higher level of comprehension, because they do not lose time decoding individual words, opposite they are focused on contrasting and inferring messages. Therefore, expertise readers use their schemata to analyze, recognize and interpret information such as symbols, letters and words fast saving time for more complex cognitive procedures.

Knowledge of language features such as semantic and syntax of language of a text increases speed reading and comprehension. Lipson (as cited in Quibui and Wanja, 2012) demonstrated that previous knowledge of the topic and a standard domain of the language could affect positively reading speed and comprehension of a text; for instance, he showed that students who had previous knowledge of the topic related to spiders could read faster and answered more complex and specific questions about the text. Moreover, Nations (2009) mentioned that in order to increase students` speed reading ability, it is necessary to select a book with a lower level of English structure and lexicon in relation to the average level of the students in the class. Consequently, teachers should analyze their students` language competences and their previous knowledge related to the topic of the text before selecting it.

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Cognitive disabilities related to language produce lower levels of speed reading. According to disable –world.com , dyslexia is one of the most common language learning disabilities. It mainly affects the ability to recognize letters, causing problems for decoding words, which at the end difficult the increasing in the rate of speed reading and delayed comprehension of a text. According to Lobier, Dubois and Valdois (2013), Letter Combination Detector Model (LCD) stated that during reading, the human brain associates and joins letters to make them have sense for our eyes. Therefore, this visual process is connected with perception of how the letters are organized. Consequently, dyslexic readers who tend to confuse and disorganize letters, have problems identifying the meaning of the words and developing fast reading performance. In spite of knowing that dyslexic readers tend to have low performance in reading speed, there is no clear evidence about a detriment in their level of comprehension; in fact, there are different opinions related to their level of comprehension. Additionally, a similar study performed by Lobier et al. (2013) demonstrated that a lower reading speed does not affect the visual short term memory capacity VSTM, which presented similar rates for dyslexic and non dyslexic students.

Students` motivation and the purpose of reading activity influence the results in reading comprehension. Motivation is determinant for reading comprehension, when students are motivated, they give internal meaning to the messages of the text and they become more engaged during the reading process, which facilitates a positive experience that ensure a repetitive process of reading (Pecjak and Peklaj, 2006). However, many studies showed that teacher`s role in promoting motivation for reading is indispensable. According to Farstrup (as cited in Abdelrahman and Bsharah, 2014), teachers should promote the instruction of reading speed strategies to make students aware of their capacities by performing better tasks and motivating them to keep reading extensively. However, teachers need to take account some requirements before deciding the kind of book and the type of assignments that students will perform, for example: the activity needs to be interesting for students, the accomplishment should have a personal value for them and the assignment needs to be useful for the reader`s professional or personal objectives (Pecjak & Peklaj,2006).

An inadequate activity to establish reading comprehension leads to unreliable findings and interpretations. According to Just and Carpenter (1987), many of the researches that have tried to justify the increasing of level of comprehension throughout using speed reading, have used

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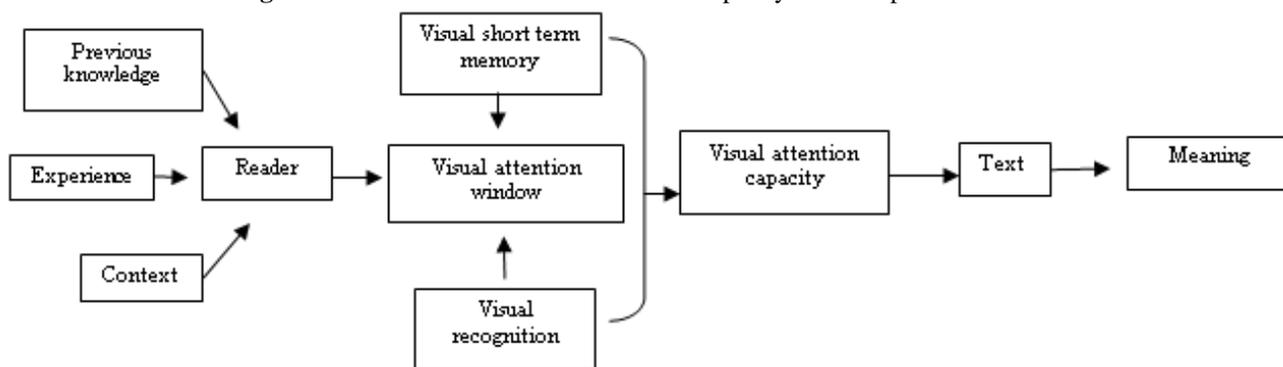
questionnaires and activities which not measured adequately the level of comprehension. Basically, they have focused on easy activities and questions for general ideas, multiple choice and true or false. In addition, Liddle (as cited in Just and Carpenter, 1987) presented a study where he demonstrated that speed readers could obtain percentage of comprehension of 68 after reading three times a text. However, Carver (as cited in Just and Carpenter, 1987) demonstrated that the test used by Liddle was very easy and non adequate to evaluate a deep level of comprehension. He made that a group of non –speed readers performed the same process of Liddle`s group, three times reading the same text. As a result, they obtained a comprehension score of 57 % on the same test. Consequently, the difference of 11% of the comprehension can be obtained due to the speed reading and the ease of the test.

### *Compounds of Speed Reading*

The visual attention capacity of readers determines their ability to read fast and perform better in reading comprehension. According to Ans, Carbonel and Valdois ( as cited in Lobier et al., 2013), in order to be fluent readers learners need too able to visualize and process many words in short period of time. Lobier et al, (2013) stated that the Letter Combination Detectors (LCD) and Multi Trace memory (MTM) models work together to facilitate the process of word recognition. The LCD model detects and recognizes individual letter in a perceptual form, make them join in a network of letters and words. Then, the chain of words forms part of the visual-attentional window. According to the MTM models, the visual attention window refers to the kind and amount of letters and words that a person can read and understand, throughout a mental process where uses his previous knowledge to recognize each letter until make words and sentence have sense, see figure 1.

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**Figure 1:** The Process of Visual Attention Capacity and Comprehension.



Elaborated by the authors

Source: cited authors

However, if reader fails in understanding or joining the letters, the window will reduce the amount of words until reader will be able to understand each word and the phrase. Moreover, the capability of reader to process and storage a wide numbers of words in his visual short term memory has a transcendental importance for speed reading and comprehension (Quibui & Wanja, 2012). Bose (as cited in Ibrahim et al., 2014) stated that while words become more familiar to the readers, the duration of pauses while reading decreases, which promotes the increasing in the speed of reading. Although eyes movement determines how fast a text can be read, it cannot ensure higher levels of comprehension. During speed reading, two common eyes movement happens, they are fixation and saccade. While fixation refers to the stop that the reader`s eyes do during the reading, saccade is about the movement done toward the next words or back to previous ones (Miyata et al., 2012). Many studies have been done in this area, they have attempted to determine the correlation between reading speed, comprehension and eyes movement. For instance, Just and Carpenter (1987) found that speed readers tended to fixate fewer words than normal readers. In others word, a normal reader fixated 64% of the words in a text, while fast readers only fixated 33%. Consequently, normal readers needed more time to finish a text than speed readers. However, this research also demonstrated that in spite of a normal reader achieved a rate of 240 words per minute (wpm) and a speed reader 700 wpm, the normal reader groups comprehended better the text than the speed readers group.

Moreover, Miyata et al. (2012) studied the eyes movement in Japanese adult readers. They found that speed reading is determined by fewer amount of fixation, fewer regressive saccade and larger

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horizontal saccade movements. However, this study also identified that speed readers tended to vary the size of their saccade. This irregularity is explained by Just and Carpenter (1987), they stated that speed and normal readers have equal characteristics when they faced content words. Both tended to fixate more on content words than functional words, as a result of the tendency of content words to be longer.

In spite of speed reading strategies can be learned, it is adequate to maintain readers practicing them. Beale (as cited in Abdelrahman and Bsharah, 2014) argued that speed readers are able to skim and scan in order to identify the main aspects of the texts that are required for a specific assignment. Therefore, skimming and scanning are known as the main strategies to save time and increase speed reading.

Abdelrahman and Bsharah ( 2014) found that training in speed reading strategies focused on developing skimming and scanning abilities were appropriate to improve the students` performance in reading comprehension activities. Moreover, the training brought some attachment benefits in the aspects that students felt more confident and motivated to read. In addition, Underwood et al. (2012) demonstrated the benefits of a course design to train students in speed reading strategy focused on high frequency vocabulary, the results showed both that students were able to read faster with higher levels of comprehension, and acquired a higher level of vocabulary acquisition. However, Macalister ( as cited in Jodai and Tahriri, 2011) demonstrated that in spite of students acquired the ability to read fast, if they do not keep practicing, that ability tends to disappear.

### **Conclusion**

Speed reading can facilitate comprehension until certain number of word per minute. Unfortunately, there is not a consensus between the amounts of words per minute that a proficient reader must achieve. For instance, Nation (2009) argued that 150 wpm is an appropriate rate; on the other hand, Fry (as cited in Jodai and Guilan, 2011) considered that a good reader performs a speed of 350 wpm. Cushing-Weigle ( as cited in Jodai and Guilan, 2011) discovered that there was a positive relation between the increase of words per minute and comprehension when his students reached an average of 110 wpm. However, when the amounts of words per minute increased from 158 to 195, the students` rate of comprehension decreased from 6.59 to 5.8 out of 10. Consequently, it is important to record the rates of word per minute and levels of comprehension of students, in

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order to determine the best amount for them. Referring to comprehension and speed reading is important to indicate that not only speed reading influence reading proficiency, there are other factors, such as motivation, students` context, their level of proficiency in the language which influence in students` performance during a reading activity (Snow, 2002).

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