

# Importance of reading: the effect of contextual visual aids on students

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There are so many theoretical frameworks with regard to visual effects on learning reading comprehension. According Johnson-Laird (2012), the most important theory in this regard is, the transmediation theory (Siegle, 1995), the repetition hypothesis (Gyselinck & Tardieu, 1999) and the dual coding theory (Sadosky & Paivio, 2001). Dual coding theory discusses about the relationship between pictures and reading.

The issues related mental aspects can be divided into two sections. (a) Nonverbal systems which are related to holistic processing of data, and (b) Verbal systems which are related to abstract and sequential processing of data. When the learners see reading text and related pictures, their schemata can help them to comprehend verbal and non-verbal information which can simplify the reading comprehension (Jee & Li, 2014).

Empirical studies on the effect of visual aids on reading comprehension

In fact, this strategy can be useful for advance organizers. It means the learner has some background knowledge and visualization can help them enhance their previous knowledge by increasing the new knowledge. This factor can aid them to strengthen their recalling of the passage and improve comprehension. Thus, the impacts of images should be considered empirically (Fukuyama, 2006).

According to Fukuyama (2006), learning reading comprehension can be more effective for elementary learners with lower proficiency. These studies indicate that visualization either provides the readers with background information, or facilitate top-down processing, it means the process of

comprehending of the mind toward the text; therefore, improves comprehension of the story (Ausubel, 2000).

Regarding Purnell and Solman (1991), the other framework of dual coding theory is about a better comprehending of the text and pictorial cues and activation of some codes in the mind.

Other findings also demonstrate consistency with DCT. An investigation conducted by Kullhavy, Lee, and Caterino (as cited in Pan & Pan, 2009) proved that fifth graders understood data in maps and prose directions better when it was presented in both spatial and elaborated verbal forms rather than either form alone. In another study carried out by Gambrell and Jawitz (1993), students who had access to both text and illustrations performed better than those who had studied text alone.

Moreover, Hall, Bailey, and Tillman (1997) investigated that some learners prefer to the text with picture illustration and some others like to read the text only. Based on DCT theory, the those students who use imagery data can enhance their comprehension more than those that utilize verbal system.

According to Tang (1992), one group of EFL learners read academic texts with the mind mapping which show the related words to that text; another group of students read the text without mind mapping. The findings pointed out that the learners who utilize mind mapping can recall the text better than those who didn't use it.

According to Hudson (1982), reading comprehension in intermediate level of the learners improved when the students first examined some images related to the passage, then were asked some questions, and finally wrote down predictions before reading the passage. The result showed that the visuals simplified reading comprehension because they suggested more contextual data to the students, confirming the value of DCT.

Based on Pan and Pan (2009)'s research, integrity and coherence of the text accompany with the pictorial cues within the DCT framework can be helpful effect of reading comprehension. This pictorial cues can simplify the context of the text to be comprehensible and can solve the problem of comprehension and retention. It is believed that the use of visuals in the improvement of training concerns will reinforce reading comprehension.