

Challenge accepted: employing reading comprehension strategies in training your brain into becoming a better reader

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***Abstract:** The following article provides a brief overview of the specificities of the processes of reading and comprehension as a starting point for a discussion of the 8 reading comprehension strategies deemed most successful. Furthermore, it provides a list of practical guidelines for the application of each of these strategies.*

***Key words:** reading as a process, reading comprehension, comprehension strategies, written text, practical guidelines*

What is reading (comprehension) and why is it so important?

The obvious importance of reading stems directly from the ubiquity of text in everyday life. Whether it is done for pleasure or out of necessity, the process of “extracting” meaning and information from written text – or rather, decoding and relating it to previous knowledge and experience (Willingham 2006: 41) – is present in innumerable contexts, ranging from reading your e-mail or text messages, a blog, a magazine, or newspaper article to reading a textbook or doing research on an academic topic. Reading comprehension, thus, has been defined as “the process of simultaneously extracting and constructing meaning through interaction and involvement with written language” (Snow 2002: 11; Ness 2009: 143-144). Moreover, researchers within the field claim that “the most important thing about reading is comprehension” (Gambrell et al. 2002: 3).

Why is reading sometimes difficult?

From the point of view of Cognitive Psychology, “reading involves processes at different levels, from recognition of graphemes to the integration of global ideas from the text into the reader’s knowledge” (Orbea, Villabeitia 2010: 112) such as “word recognition, syntactic processing and semantic processing” (ibid.). In simpler terms, this suggests that there exist three separate cognitive processes which pertain to reading with understanding: “monitoring your comprehension, relating the sentences to one another, [or] relating the text to what you already know” (Willingham 2006: 41).

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Additionally, the actualization of the process of reading involves a number of variables all of which affect the process of reading itself and its eventual outcomes (ideally, comprehension). These variables or factors pertaining to the process of reading and achieving comprehension include (among others):

- the setting and the situation in which reading takes place along with its temporal and spatial specificities and/or limitations;
- the medium – whether the text is written by hand, printed on paper, or is in electronic form (the quality and size of the screen is thus also relevant);
- the type and quality of the text itself including its levels of semantic and syntactic complexity, its level of explicitness/implicitness, its author(s)' purposes, intentions, motivation, etc.;
- the readers' knowledge and skills – their language proficiency (including their grasp of vocabulary, grammar and syntax), the speed at which they can decode text, their background knowledge and experience and their ability to relate it to the text they are reading (Willingham 2006: 45, 50); their purposes, intentions, and motivation in reading the text.

All these factors result in specific affordances or limitations on the reading process and the process of comprehension of text. Therefore, there exist different reading techniques each of which reflect and correspond to a specific need or purpose of the reader and are aimed at compensating for the existing limitations upon the process. Thus, we have reading for gist (skimming) and reading for detail (scanning), reading for pleasure (extensive) and reading with a mind to achieve specific goals (intensive), to name but a few of the most popular and commonly used ones (West 2008).

What are reading comprehension strategies and how can they help?

Generally speaking, strategies can be regarded as specific ways to adjust available resources to the requirements of a situation in order to achieve our own goals and to satisfy our needs. More specifically, reading comprehension strategies pertain to the ways in which we approach a text in order to achieve our goals efficiently (i.e. to achieve maximum results with minimum effort for the shortest possible time) by resolving possible problems with understanding. Thus, reading comprehension strategies have been defined as “conscious, deliberate, and flexible plans readers use and adjust with a variety of texts to accomplish specific goals” (Pilonieta 2010: 152) and “high-level comprehension processes” (Schoot et al. 2008: 203).

Various research on reading comprehension has suggested the positive effects of explicit instruction in using reading comprehension strategies (Willingham 2006: 39; Harvey, Goudvis 2007; U.S. Department of Education 2016). The extensive study done by the National Reading Panel (NRP 2000) on the basis of 481 studies on reading strategies published between 1980 and 1998 (Willingham 2006: 42) has yielded a categorization of 15 separate groups of reading comprehension strategies and one additional group which includes “multiple strategies”, i.e. a combination of strategies for reading comprehension. As each group of strategies targets one of the three aforementioned cognitive processes involved in reading comprehension, Willingham (2006: 43) offers an organized list of the 16 strategies suggested by the NRP, based on this criterion (see fig.1 below):

Strategy	Number of studies	Evidence of effectiveness	Strategy description
<i>Strategies designed to encourage students to monitor their comprehension:</i>			
Comprehension monitoring	22	Yes	Readers are taught to become aware of when they do not understand, for example by formulating what exactly is causing them difficulty.
Listening actively	4	Research inconclusive	Students learn to think critically as they listen and to appreciate that listening involves understanding a message from the speaker.
<i>Strategies designed to encourage students to relate sentences to one another:</i>			
Graphic organizer	11	Yes	Students learn how to make graphic representations of texts, for example, story maps.
Question answering	17	Yes	After students read a text, the teacher poses questions that emphasize the information students should have obtained from the text.
Question generation	27	Yes	Students are taught to generate their own questions, to be posed during reading, that integrate large units of meaning.
Summarization	18	Yes	Students are taught techniques of summarizing, e.g., deleting redundant information and choosing a topic sentence for the main idea.
Mental imagery	7	Research inconclusive	Students are instructed to create a mental visual image based on the text.
Cooperative learning	10	Yes	Students enact comprehension strategies—for example, prediction and summarization—in small groups, rather than with the teacher.
Story structure	17	Yes	Students are taught the typical structure of a story and learn how to create a story map.
Multiple strategy instruction	38	Yes	Multiple strategies are taught, often summarization, prediction, question generation, and clarification of confusing words or passages.
<i>Strategies designed to encourage students to relate sentences to things they already know:</i>			
Prior knowledge	14	Research inconclusive	Students are encouraged to apply what they know from their own lives to the text, or to consider the theme of the text before reading it.
Vocabulary-Comprehension relationship	3	Research inconclusive	Students are encouraged to use background knowledge (as well as textual clues) to make educated guesses about the meaning of unfamiliar words.
<i>Other strategies:</i>			
Curriculum	8	Research inconclusive	Instruction is carried to the curriculum beyond reading. Thus, students might study story structure during reading time, apply the structure themselves during writing time, and look for story structure during social studies.
Mnemonic	2	Research inconclusive	Students are taught to associate a keyword with some aspect of the text to help memory for that aspect; it is designed for use with very unfamiliar texts.
Psycholinguistic	1	Research inconclusive	Students are taught language conventions that will help comprehension; for example, how to find the antecedent of a pronoun like “she.”
Teacher preparation	6	Research inconclusive	Teachers learn techniques by which to teach reading strategies.

Source: National Reading Panel (2000). Teaching children to read: An evidence-based assessment of the scientific research literature on reading and its implications for reading instruction. Washington, D.C.: National Institute of Child Health and Human Development.

Fig. 1. – an organized list of the 16 reading comprehension strategies proposed by the NRP

Of all 16 strategies, eight have been further isolated and deemed the most efficient ones. These include the following (NRP 2000; Babbitt 2002; Willingham 2006: 43):

1. **Comprehension monitoring** in which the reader learns how to be aware or conscious of his or her understanding during reading and learns procedures to deal with problems in understanding as they arise;
2. **Cooperative learning** in which readers work together to learn strategies in the context of reading;
3. **Graphic and semantic organizers**, which allow the reader to represent graphically (write or draw) the meanings and relationships of the ideas that underlie the words in the text;
4. **Story structure** from which the reader learns to ask and answer who, what, where, when, and why questions about the plot and, in some cases, maps out the time line, characters, and events in stories;
5. **Question answering** in which the reader answers questions posed by the teacher and is given feedback on the correctness;
6. **Question generation** in which the reader asks himself or herself why, when, where, why, what will happen, how, and who questions;
7. **Summarization** in which the reader attempts to identify and write the main or most important ideas that integrate or unite the other ideas or meanings of the text into a coherent whole;
8. **Multiple strategy instruction** in which the reader uses several of the procedures in interaction with the teacher over the text.

How to use the strategies:

Willingham states that “successfully implementing a reading comprehension strategy is not a skill at all. It may be more like a trick in that it’s easy to learn and use, and the only difficulty is to consistently remember to apply it” (Willingham 2006: 44). In this sense, each of the aforementioned strategies involves particular activities aimed at resolving potential problems with comprehension and each has its specific affordances for certain types of situations in which reading comprehension occurs.

As illustrated on figure 1 above, the first of the eight strategies is designed to “encourage [readers] to monitor their comprehension” (see fig.1 above) by raising their awareness of problematic areas of the text. By resorting to this strategy, readers can first of all learn to approach the comprehension or understanding of the text not as the final product of the application of their reading skills but rather as a process of negotiating meanings based on cues

provided by the text itself, as well as by their own background knowledge. This integrating of information from both sources – the textual content and the background knowledge of the reader – can help transform the process of reading a text from an abstract deciphering of signs into an active and engaged activity of constructing meaning. Secondly, by familiarizing themselves with the specific requirements and expected results from the reading task at hand, they can learn to streamline their reading process and tailor it to the specific temporal and informational resources available in the current situation. This includes focusing on specific areas and elements of the text, thus prioritizing particular items of information over others based on the goals and objectives of the reading comprehension task, which in turn would result in an efficient use of the readers' limited processing resources and active attention.

Cooperative learning is another helpful strategy which has the potential of combining the background knowledge and reading skills of a group people, thus compensating for the potential weaknesses of separate members' knowledge, skills and abilities and resulting in better overall level of comprehension.

Yet another strategy which can help readers better understand the relationships among different elements in the text (hierarchical, temporal, spatial, cause-and-effect, comparison and contrast, enumeration etc.) is the employment of graphic/semantic organizers. This is a strategy which actively employs the cognitive ability of people to organize knowledge by applying universal cognitive structures such as frames, schemata, scripts and plans (see Beaugrande, Dressler 1981; van Dijk, Kintsch 1983) for the purpose of creating a mental picture of a particular text.

A closely related strategy is one which pertains to the use of the structural elements of the text as additional sources of information and indicators of emphasis. For example, many high-quality informative texts employ a particular commonly used structure made up of separate paragraphs with specific functions in the overall hierarchy of the text. At the level of text, each separate paragraph or paragraphs can be seen either as belonging to the introduction, the thesis statement, the main body of the text, or the conclusion, while the title gives an overall statement of what the text is about – the topic. Respectively, at the level of paragraphs there exist hierarchical relations which usually result in the first sentence of each paragraph being a topic sentence (containing a separate main idea or claim related to the thesis statement) and the rest of the sentences containing developers of the main idea expressed within the topic sentence. As a result of the frequency of use of this type of structure, readers can often rely on the title and the topic sentences to supply them with information regarding the main ideas developed in a text in a very efficient and concise form.

The fifth and sixth strategies – namely, question answering and question generation – are also in direct relation among themselves, as they can be seen as

alternatives to choose from in different reading situation. Question answering presupposes the existence of pre-formulated questions whose author is not the reader. The reader, therefore, needs to focus on understanding not only the text in a general way but also to pay attention to what exactly is being required of him/her. This can often be achieved by focusing on key words which appear in the question (and/or answer options, where applicable) and then search for those key words and their synonyms, antonyms, etc. within the text, thus identifying relevant sections of the text and concentrating active attention to those specific parts. Question generation, on the other hand, requires the development of a habit for formulating questions which can in turn help the reader in identifying and specifying problematic areas or areas of particular interest within a text.

The final separate strategy is that of summarization. It is closely related to the reading technique of skimming the text for the gist and employs such activities as note-taking, highlighting or underlying key words or sections of the text which contain the main points. Consequently, these marked elements can serve as a plan for drafting a summary of the text. Furthermore, summarizing a text does not only require for the reader to pinpoint the main ideas but also involves the ability to apply a structure to the summary by providing hierarchical, temporal, spatial, causal etc. relations among those main ideas.

In conclusion, the eighth strategy involves the simultaneous or the consecutive employment of multiple strategies such as, for example, employing strategy #1 in order to find out what the requirements for the reading task are by first reading the provided questions and answering options; secondly, supplying the meaning of problematic vocabulary items by generating questions (strategy #6) or relying on context and structure

Finally, for the purpose of easy and fast reference the present article proposes the following guidelines to applying these “tricks” in practice which have been presented in the form of a list (albeit definitely incomplete) of actions for the reader to undertake:–

- ***Comprehension monitoring:***
 - activate background knowledge – think about what you already know about the topic;
 - familiarize yourself with what you will be required to do;
 - collect and define new or problematic vocabulary items – use the context;
 - preview questions and answer options;
- ***Cooperative learning:***
 - work in groups;

- divide text or tasks among group members;
- combine ideas;
- discuss possible answers to questions;
- ***Graphic and semantic organizers:***
 - draw a visual representation (map) of elements in the text and the relationships among them – structures of hierarchy, temporal/ spatial sequence, cause and effect, comparison and contrast, etc.;
 - underline/ highlight/ number important key words and sections within the text for faster reference;
- ***Structure:***
 - use the structural elements of the text as sources of information – title, introduction, body paragraphs, conclusion;
 - use the graphic/ visual elements of the text – illustrations, graphs, charts, tables, bulleted/ numbered lists;
 - look for main ideas/ topics – use the title, headings, first and last sentence of each paragraph;
 - look for details – use key words and their synonyms, names, numbers, places;
- ***Question answering:***
 - focused reading – read the questions before you start reading the text (if possible);
 - pay attention to key words in the question and match them to sections in the text;
 - for multiple choice questions – consider eliminating obviously incorrect options first;
- ***Question generation:***
 - ask the teacher/ partner/ official/ dictionary/ Google/ Wikipedia about the meaning of new/ problematic vocabulary (if possible);
 - for multiple choice questions – ask yourself/ group partner(s) for proof from the text: “Why did you choose this option?”
- ***Summarization:***
 - take notes, underline/ highlight key points and ideas – use

them to draft a plan of your summary;

- apply a structure to your summary – use hierarchy, temporal/spatial sequence, cause and effect, comparison and contrast, listing;
- paraphrase – use your own words;
- **Multiple:**
 - combine various strategies, such as summarization, prediction, question generation, and clarification of confusing words or passages.

Conclusion

The present article deals with an aspect of the process of reading pertaining to the achieving of comprehension and enhancing this comprehension by means of the application of a set of eight strategies. Although the theoretical background and the overview of research and literature on the issue can undoubtedly be additionally extended, the aim of the article has been instead to focus on the actual steps of applying these strategies in practice. Therefore, ease of reference and succinctness have been given preference over definitiveness for the purposes of the current paper.

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