

# Demonstrating Reading Comprehension



Students who struggle with demonstrating reading comprehension often exhibit individual strengths and weaknesses in a variety of cognitive processes. Some of these weaknesses deal with internally processing information in ways that support higher order thinking skills. Some of these weaknesses deal with being able to express or demonstrate what is understood. The following are some areas to consider.

Taken from the NICHY Reading & Learning Disabilities Briefing Paper:

<http://www.nichcy.org/informationresources/documents/nichcy%20pubs/fs17.pdf>  
<http://www.nichcy.org>

**Input** – the process of recording information from the senses in the brain



- *Visual perception problems*: could include differentiating foreground and background, impact of colors
- *Difficulties with size, shape, and placement*: could include letter reversals/rotations, skipping words/lines of text, rereading the same text
- *Auditory perception problems*: may confuse subtle differences in sounds and confuse words and phrases that sound alike

**Integration** – the process of interpreting information



- *Sequencing*: may recount a story by starting in the middle, may reverse the order of letters in a word, may change the order of words in a phrase, may have problems with the order of any sequence of individual units/bits of information
- *Abstraction*: may have problems inferring meaning, problems generalizing information from a story or article, problems understanding jokes, puns, or idioms
- *Organization*: may have problems moving from related bits of information to a coherent concept, may have problems processing facts to answer general questions

**Memory** – the process of mentally storing/recording information for later retrieval



- *Short-term memory*: can include difficulty maintaining initial memory long enough to move the information into long-term memory
- *Long-term memory*: long-term memory may be easily “depressed” or weakened through processing new related memories (see section on long-term potentiation and long-term depression)

**Output** – the process of expressive (and written) language



- *Spontaneous language*: self-selected topics generally demonstrate those subjects/topics the student has organized their thoughts around and selected the appropriate words to use; often resulting in a coherent conversation or report but not on assigned topics or relevant curricular information
- *Demand language*: when a student is faced with an assignment or requirement to discuss or write on a topic that is not already internally organized they may pause, ask for clarification or more information, give confusing responses or answers, or have problems finding the right words to use

Instructional strategies can point to instructional scaffolds, accommodations, and even assistive technology needs. If a student requires an instructional strategy, such as advanced organizers, and eventually becomes successful without that strategy then the student has internalized the process. But if a student always requires a particular strategy, such as an advanced organizer, to be successful then that strategy may point to the need for an ongoing accommodation. If this is the case then it is important to teach the student how to become independent in selecting and using that strategy and any related technology tools, for example, teaching the student strategies and tools to visually mark or highlight portions of text, create concept maps, develop conversation guides, etc.

Study Guides Strategies - <http://www.studygs.net/> . extensive collection of study and learning



### **Input Accommodations / Strategies**

- Text adjustment (alter font, font size, serif vs. sans serif, spacing between words, spacing between lines)
- Color coding (adjust background/foreground colors, use color overlays)
- Visually marking/highlighting sections of text
- Reading Guides
- Alternative media (text-to-speech, graphic clues)
- Audio files EQ'd for clarity



### **Integration Accommodations / Strategies**

- Graphic Organizers (including advanced organizers)
- Concept Maps / Mind Maps
- Timelines
- Outlines
- Illustrations
- Plays / Comics / Role Play



### **Memory Accommodations / Strategies**

- Journals
- Illustrations / Graphics / Audio
- Image Albums
- Repeated Processing Activities
- Simulations / Interactive media



### **Output Accommodations / Strategies**

- Graphic Organizers
- Guided Discussion
- Report/Conversation Guides
- Extended Time
- Plays / Comics / Role Play

## Visually Mapping Information

Visually mapping information is a scaffolding technique that supports pattern recognition, information organization, and memory. Tools found in programs like WORD and Adobe Reader include highlighters, comments, stamps, and adjusting font attributes. The Find/Replace tool in WORD is useful for finding all occurrences of a word or phrase and highlighting it. Comment tools, stamps, shapes, arrows, and notes can all be used to visually map digital text.

Here are some strategies that can be used when visually mapping information using highlighters or other commenting tools.

<b>ACID</b>	<b>Preview</b>	<b>Purpose</b>	<b>Relate to Self</b>	<b>Relate to Senses</b>
Mark text by: <ul style="list-style-type: none"><li>• Agree</li><li>• Confusing</li><li>• Interesting</li><li>• Disagree</li></ul>	Mark text by: <ul style="list-style-type: none"><li>• Titles</li><li>• Sub-titles</li><li>• Repeated words</li><li>• First &amp; last paragraph</li></ul>	Mark text by: <ul style="list-style-type: none"><li>• Word occurrence</li><li>• Adjectives</li><li>• Sequence</li><li>• Compare / contrast</li></ul>	Mark text that relates to personal memories: <ul style="list-style-type: none"><li>• Past experience</li><li>• Books, pictures, video</li><li>• Events, people, issues</li></ul>	Mark text that relates to personal memories: <ul style="list-style-type: none"><li>• I can taste . . .</li><li>• I can hear . . .</li><li>• I can visualize . . .</li></ul>

The above strategies came from the following great resources.

Active Reading Strategies: <http://www.savvyknowledge.com/> . excellent product with comprehensive instructions on a wide variety of reading strategies. includes a CD and well written manual. they also have products addressing study strategies and classroom behavior.

Scholastic Reading Strategies:  
<http://printables.scholastic.com/printables/search/?query=reading%20comprehension%20strategies> . great collection of printable reading strategies

Reading & Study Digital Tools: [http://www.tlc-mtss.com/assets/digital\\_tools.pdf](http://www.tlc-mtss.com/assets/digital_tools.pdf) . a 74 page booklet filled with step-by-step tutorials on how to use reading supports and study support features in a variety of software programs that support digital text and digital books.

**Quick Tip** – Want a quick and easy way to visually map information on the internet? Go to the Bing search website and do a search on the topic of your choice. I did one on time travel. Then, instead of clicking on the link to a web site, click on the link to the cached version (usually a drop down after the regular link). Each word in your search will be highlighted in a different color. Any phrases between quotes in a search will be in a single color.

**Time travel**  
From Wikipedia, the free encyclopedia

For other uses, see **Time traveler** (disambiguation).

This article may be **too long** to read and navigate comfortably. Please consider splitting content into sub-articles and using this article for a **summary** of the key points of the subject. (July 2010)

**Time travel** is the concept of moving between different points in **time** in a manner analogous to moving between different points in **space**, either sending objects (or in some cases just **information**) backwards in **time** to some moment before the present, or sending objects forward from the present to the future without the need to experience the intervening period (at least not at the normal rate).

Although **time travel** has been a common plot device in fiction since the 19th century, and one-way **travel** into the future is arguably possible given the phenomenon of **time dilation** based on velocity in the theory of special relativity (exemplified by the **twin paradox**), as well as **gravitational time dilation** in the theory of general relativity, it is currently unknown whether the laws of physics would allow backwards **time travel**.

Any technological device, whether fictional or hypothetical, that is used to achieve **time travel** is commonly known as a **time machine**.

Some interpretations of **time travel** also suggest that an attempt to **travel** backwards in **time** might take one to a parallel universe whose history would begin to diverge from the traveler's original history after the moment the traveler arrived in the past.<sup>[1]</sup>

**Unsolved problems in physics**  
Is **time travel** theoretically and practically possible? If so, how can paradoxes such as the grandfather paradox be avoided?