

Cognitive Processes - Input



Cognition - Input (visual/auditory)

- Recognizing size, shape, and placement of text
- Recognizing line and paragraph typography
- Distinguishing subtle differences in sounds
- Distinguishing figure and background sounds

Instructional Scaffolds - Input

- Use trans-formative tools, such as text-to-speech, to scaffold difficulty in decoding text.
- Highlight, or visually mark up, text to support visual navigation of content.
- Use visual reading guides (physical and digital) to support consistent visual movement through a text while reading.
- Simplify digital and online text by removing distractions on the page.
- Use text summarizers to reduce the amount of content in a text so students can learn the core ideas, then add the rest of the content.
- Change the size and type of font used.
- Adjust the spacing between letters, words, sentences, and paragraphs.
- Reduce the width of the columns of text.

Natural Reader - <http://www.naturalreaders.com/> . a free text-to-speech tool for Windows systems

Macintosh built-in Text-to-Speech - <http://www.wikihow.com/Activate-Text-to-Speech-in-Mac-OSx>

ATbar - <https://www.atbar.org/> . a free Windows cross-browser toolbar with text-to-speech and other tools

Read:Outloud - <http://donjohnston.com/readoutloud> . an affordable text reader with great study & thinking tools

Snap&Read - <http://donjohnston.com/snap-read> . an affordable tool that reads text and pictures of text

Read & Write Gold - <http://www.texthelp.com/North-America> . a customizable "floating" toolbar that integrates reading, writing, studying, and research support tools

Kurzweil 3000 & firefly - <http://www.kurzweiledu.com/products/kurzweil-3000-firefly-overview.html> . full featured literacy support software that includes text-to-speech, adjustments for fonts, color highlighters, and more

Reading & Study Digital Tools - http://www.tlc-mtss.com/assets/digital_tools.pdf . digital PDF book with instructions on how to use comment features, mark-up features, text-to-speech, and more in a variety of programs

Readability - <https://www.readability.com/> . a free online tool that cleans up web pages and removes distractions, allowing a student to focus on the main content

BeeLine Reader - <http://www.beeline reader.com> . A free plug-in for web browsers that uses color text to help students track text while reading

Online Text Summarizer - <http://www.tools4noobs.com/summarize/> . free online tool that summarizes text. You can paste text in or paste in a URL and decide how much to summarize

Typefaces for Dyslexia - <http://bdatech.org/what-technology/typefaces-for-dyslexia/> . article on fonts that support students who have dyslexia, including links to download fonts that are free

Cognitive Processes - Integration



Cognition - Integration

- Sequencing
 - Ordering and sequencing information
 - Organizing and relating information
- Abstraction
 - Inferring meaning
 - Generalizing a text

Instructional Scaffolds - Integration

- Use graphic organizers, concept maps, mind maps, timelines, outlines, etc. to organize information and visually integrate different bits of information or events with each other.
- Highlight, or visually mark up, text to support visual organization of content.
- Provide or use advance organizers to get a big picture of the organization of the text before reading the main content.
- Consistently use text mark-up strategies to support a thoughtful processing of the text.
- Consistently use mental models, such as K-W-L, Compare-Contrast, etc.

Infographics for Teachers - <http://www.educatorstechnology.com/search/label/infographic%20making%20tools> .
infographics can be a great tool to provide students with the big picture and sequence of information.

Free Printable Graphic Organizers - <https://www.teachervision.com/graphic-organizers/printable/6293.html?s2>

Intel: Tools for Student-Centered Learning - <http://www.intel.com/content/www/us/en/education/k12/teachers.html> . a collection of tools that students can use to organize ideas and develop the rationale for an argument.

Inspiration & Kidspiration - <http://www.inspiration.com/> . excellent graphic organizer tools

Popplet - <http://popplet.com/> . online and iPad tool for organizing thoughts through mind maps, word walls, etc.

MindMup - <http://www.mindmup.com/> . a free, quick and easy online mind mapping tool

Rationale - <http://rationale.austhink.com/> . software that guides a student in argumentative writing

Tiki-Toki - <http://www.tiki-toki.com/> . create beautiful, interactive online timelines.

Timeline from readwritethink - http://www.readwritethink.org/files/resources/interactives/timeline_2/ . a free online tool that can be used to sequence events that are not calendar based

Timetoast - <http://www.timetoast.com/> . an online time line tool that quickly switches from timeline to text views.

Active Reading Strategies - <http://www.inlets.net/ars.html> . a variety of text mark-up strategies

Reading & Study Digital Tools - http://www.tlc-mtss.com/assets/digital_tools.pdf . digital PDF book with instructions on how to use comment features, mark-up features, text-to-speech, and more in a variety of programs

Read:Outloud Outline Templates - <http://donjohnston.com/readoutloud-resources> . outlines for use with Read:Outloud that guide the student through mental models such as K-W-L, Prediction, Main Ideas, etc.

OmniOutliner - <http://www.omnigroup.com/omnioutliner> . a feature rich outlining writing tool for the Macintosh and iPad.

Cognitive Processes - Memory



Cognition - Memory

- Short-term memory
- Long-term memory
- Long-term potentiation
- Long-term depression

Instructional Scaffolds - Memory

- Processing, or reading through, the content several times, each time with a different focus (e.g. making personal connections with the text, asking questions, analyzing the structure, reading for understanding, reviewing).
- Creating visual graphic organizers or timelines to help organize the information.
- Creating illustrations for parts of the information and explaining the thinking behind the illustrations.
- Comparing & contrasting different ideas, events, concepts, etc.
- Maintaining a journal and reviewing the journal on a regular basis.
- Using flash card type tools to review facts and events.

Compare & Contrast Map from readwritethink - <http://www.readwritethink.org/files/resources/interactives/comcontrast/map.html> . a free online tool for doing compare and contrast activities.

Active Reading Strategies - <http://www.inlets.net/ars.html> . a variety of strategies that students can use when marking up text to help thoughtfully analyze the content. There is a video of an example strategy on the website. Other example strategies can be found on this handout on Visually Mapping Information from the Exploring New Territories booklet. Repeated processing and reviews of marked up text increases retention.

Reading & Study Digital Tools - http://www.tlc-mtss.com/assets/digital_tools.pdf . digital PDF book with instructions on how to use comment features, mark-up features, text-to-speech, and more in a variety of programs such as Adobe Reader, WORD, Read:Outloud, etc.

Inspiration & Kidspiration - <http://www.inspiration.com/> . graphic organizer software that can move between diagram and outline views. iOS versions are available. A unique feature of Inspiration & Kidspiration is the extensive graphic library. The act of self-selecting graphics to illustrate main ideas increases retention. Explaining why different graphics were chosen as illustrations further increases retention.

Popplet - <http://popplet.com/> . online and iPad tool for organizing thoughts through mind maps, word walls, etc.

MindMup - <http://www.mindmup.com/> . a free, quick and easy online mind mapping tool

Penzu - <https://penzu.com/> . an online, cloud based writing journal. Students can write and review their journals across computers and mobile devices.

Flashcard Machine - <http://www.flashcardmachine.com/> . a free online tool, available in pay versions for mobile devices.

Free Printable Flash Card Maker - <http://www.kitzkikz.com/flashcards/> . a free simple online tool for making and printing flash cards.

Cognitive Processes - Output



Cognition - Output

- Spontaneous language
 - Self-selecting subject and related information
 - Organizing information and thoughts
- Demand language
 - Selecting related information
 - Organizing information and thoughts

Instructional Scaffolds - Output

- Use discussion guides, graphic organizers, or outlines ahead of time that support the organization of main ideas to share, then use them as prompts when sharing with others.
- Prepare fact cue cards prior to sharing.
- Prepare vocabulary cue cards or lists prior to sharing.
- Review text mark-ups and notes on facts, questions, and reactions to the text prior to sharing.

Free Printable Graphic Organizers - <https://www.teachervision.com/graphic-organizers/printable/6293.html?s2> . extensive collection of ready to print and use graphic organizers.

Popplet - <http://popplet.com/> . online and iPad tool for organizing thoughts through mind maps, word walls, etc. The portability of having this tool on a mobile device enables a student to have this support while in a group sharing activity.

Inspiration & Kidspiration - <http://www.inspiration.com/> . graphic organizer software that can move between diagram and outline views. iOS versions are available.

Wordbar - <http://www.cricksoft.com/us/products/tools/writeonline/default/vocabulary.aspx> . a writing tool, part of WriteOnline, that provides a visual vocabulary, for Windows and Macintosh. Projecting a screen of vocabulary words during collaborative reading activities can support all students in selecting words to use while sharing.

Flashcard Machine - <http://www.flashcardmachine.com/> . a free online tool, available in pay versions for mobile devices. Students can create flash cards for facts and vocabulary and print them out to use as cue cards when sharing.

Free Printable Flash Card Maker - <http://www.kitzkikz.com/flashcards/> . a free simple online tool for making and printing flash cards that can be used as cue cards.

How to Teach Public Speaking to Elementary Students - <http://everydaylife.globalpost.com/teach-public-speaking-elementary-students-11035.html> . tips to help students prepare for speaking.

Preparing Speeches - http://www.hawaii.edu/mauispeech/html/preparing_speeches.html . tips and guidelines on developing and giving a speech

Free Online Teleprompter - <http://www.cueprompter.com/> . free tools to use as an aid in presenting

Tip - Use graphic organizers, outliners, PowerPoint and other presentation software, or basic word processors on mobile devices as speaking and sharing teleprompters.