Employing Easy to Use Technological Resources to Aid Students Who Struggle with Academic Tasks

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Objectives

• Identify assistive technology interventions to assist with writing
• Identify assistive technology interventions to assist with reading

Writing
Writing Process

- Planning
- Translating
- Reviewing

— Flower and Hayes (1981)

Assistive Technology Tools

AT for Writing

PLANNING
Planning

- Graphic Organizers
  - Mapping
  - Templates
  - Outline

Mapping

Templates
Outlining

**Comparison of Essay**

1. Introduction
2. Body Paragraph 1
3. Body Paragraph 2
4. Conclusion

**Comparison of Movie**

1. Introduction
2. Theme
3. Analysis
4. Conclusion

**Comparison of Webpage**

1. Introduction
2. Content
3. User Experience
4. Conclusion

**Comparison of Interview**

1. Introduction
2. Objectives
3. Questions
4. Analysis

PLANNING PRODUCTS

- Integrated views
- Templates
- Video and sound

Inspiration

- Integrated views
- Templates
- Video and sound
FreeMind

• Java based
• Parent and child links
• Easy to use

Bubbl.us

• Web based
• Format bubbles color, text
• Sign in with Gmail account
• Share files with others

TRANSLATING
Translating

- Word Processing
- Alternative Keyboard
- Speech Recognition
- Word Prediction
- Text-to-Speech

Word Processing

- Replaces handwriting
- Increases legibility
- Easier to edit text
- May slow the writing process

Word Processing Software

- Pages
- MS Word
- Google Docs
Alternative Keyboard

- Facilitate text entry based on physical abilities
- Onscreen allows user to look at the keys and word processor at the same time.

Speech Recognition Software

- Accuracy
- Training
- Correcting errors

Speech Recognition

- Dragon Naturally Speaking 13.0
- Windows Speech Recognition
Word Prediction

- Word lists
- Phonetic dictionaries
- Customizable

Word Prediction

- TextHelp Read & Write
- ClaroRead
- Onscreen Keyboard

AT for Writing

REVIEWING
Reviewing

- Text-to-Speech
- Grammar Check
- Spell Check

Text-to-Speech

- Provides feedback as you type
- Speaks letters, words or sentences
- Read words on prediction list
- Incorporated with most word prediction programs

Text-to-Speech

- Highlight words as spoken
- Multiple voices
- Speak words one at a time or by sentence
Text-to-Speech Programs
• Read &Write
• NaturalReader

Grammar Check
• Consider context
• Assist with proper tense
• May benefit students who speak English as a second language

Grammar Checker
• MS Office grammar checker
• Read & Write
Final Thoughts

- Students may benefit from one or several of the technologies presented
- Instruction in writing is essential to effective use of the tools
- Technology must be customized to meet the needs of the student and the specific situation

Assistive Technology to Assist with the Task of Reading

LEARN TO READ VS READ TO LEARN
Reading Assistive Technology

• Scan and Read Systems
• eText
• Recorded Text
• Filters and Frames

Scan and Read Systems

• Combine OCR with Text-to-Speech
  – Embedded tools
    • Talking Dictionary
    • Highlighters
    • Voice notes
  – Read & Write
  – WYNN

e-Text

• Books available in digital format
  – Project Gutenberg
  – Bookshare.org
Recorded Texts

- Tape
- Digital
  - CD
  - MP3

Frames, Filters and Fonts

- Frames
  - Aid in following text
- Filter
  - Colors decrease discomfort associated with white page backgrounds
- Font
  - Style and coloring increase ability to follow the text

Frames and Filters

- Vu-Bar
- T-Bar
Font

• NaviDys (iPad)
• Dyslexic font
• Beeline Reader

![The quick brown fox jumped over the lazy brown dog.]

TRY IT OUT

Final Thoughts

• Read to learn is an important point to consider
• Numerous ways paid and free to convert text to alternate formats
• Compensation does not replace reading instruction