Assistive Technology

Lisa Delaney OT Reg. (Ont.)
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History

- 2007 – Compass and Limestone District School Board (LDSB)

- Complimentary to school health OT with specific focus on cognitive and mental health issues that can be accommodated for through the use of assistive technology

Our Role and Method of Service Delivery

- To provide tailored, direct training to students who require a different way of doing

- To coach and collaborate with teachers to develop strategies for students to complete school work
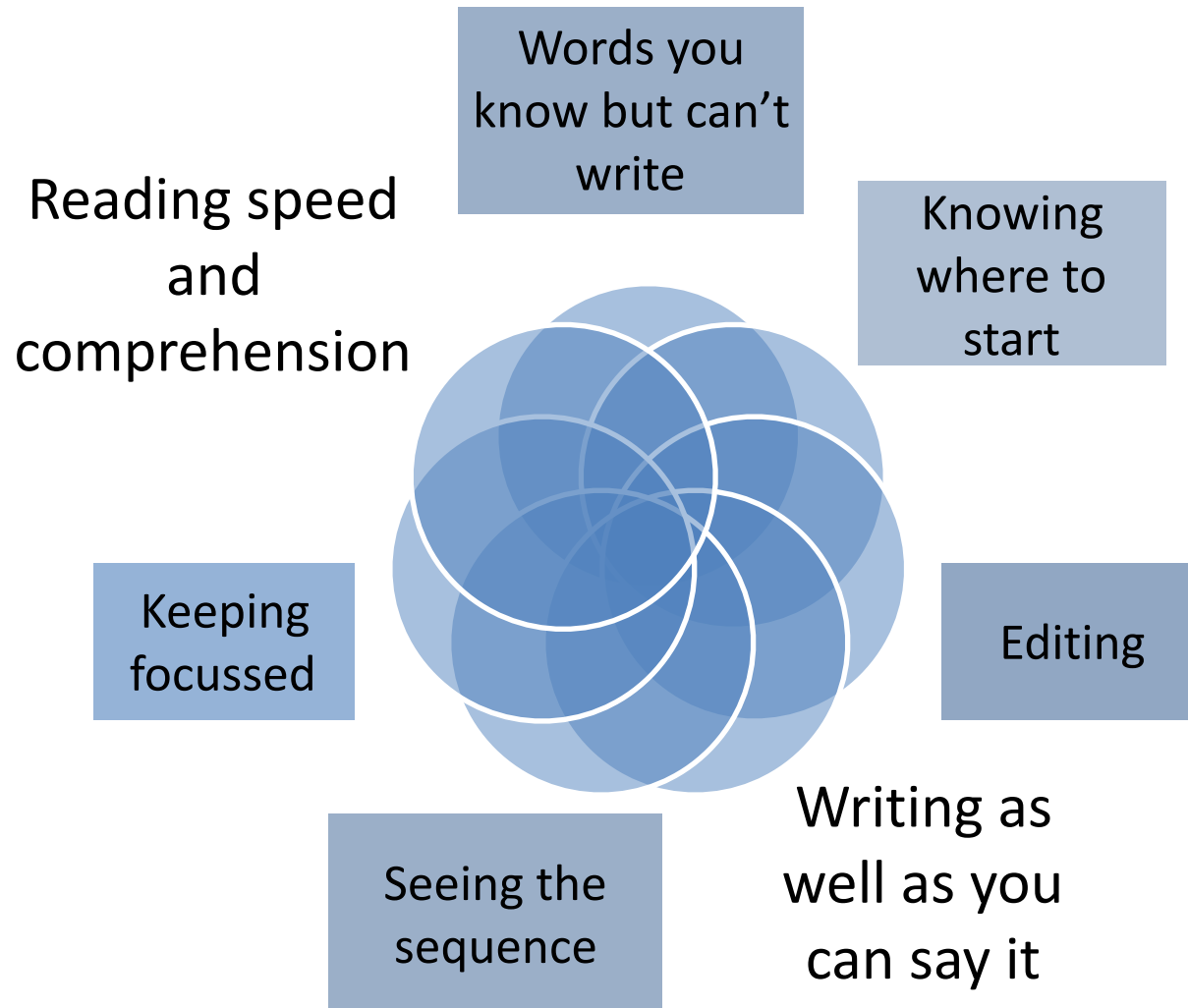
- To develop capacity within the entire school

Our Approach

- Technology is a tool, not a fix or a cure

- Different tools for different jobs

- Some jobs require more than one tool

- Tools do not do the work for the student

What Kinds of Issues Could Assistive Technology Target?

Words you know but can't write

Knowing where to start

Reading speed and comprehension

Keeping focussed

Editing

Seeing the sequence

Writing as well as you can say it

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- When there are significant gaps between _what you know and what you show_, AT can be considered

- AT helps students re-engage in the learning process

- Over 400 AT on the market, therefore it takes time to choose what is the best fit for each student.

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Considerations

- Student
  - Does the AT address their challenges?
  - Does the AT use their strengths?
  - Is the student willing to use it?
  - Is the student able to use it?

Considerations

- Tool
  - Is there a simpler tool that would work as effectively?
  - Is it easy to incorporate the tool into the classroom? Compatible with teacher knowledge? Compatible with classroom/school platform?
  - Is it portable?

Considerations

- Environment
  - Is it available at home?
  - What is the technology culture within the classroom and school?
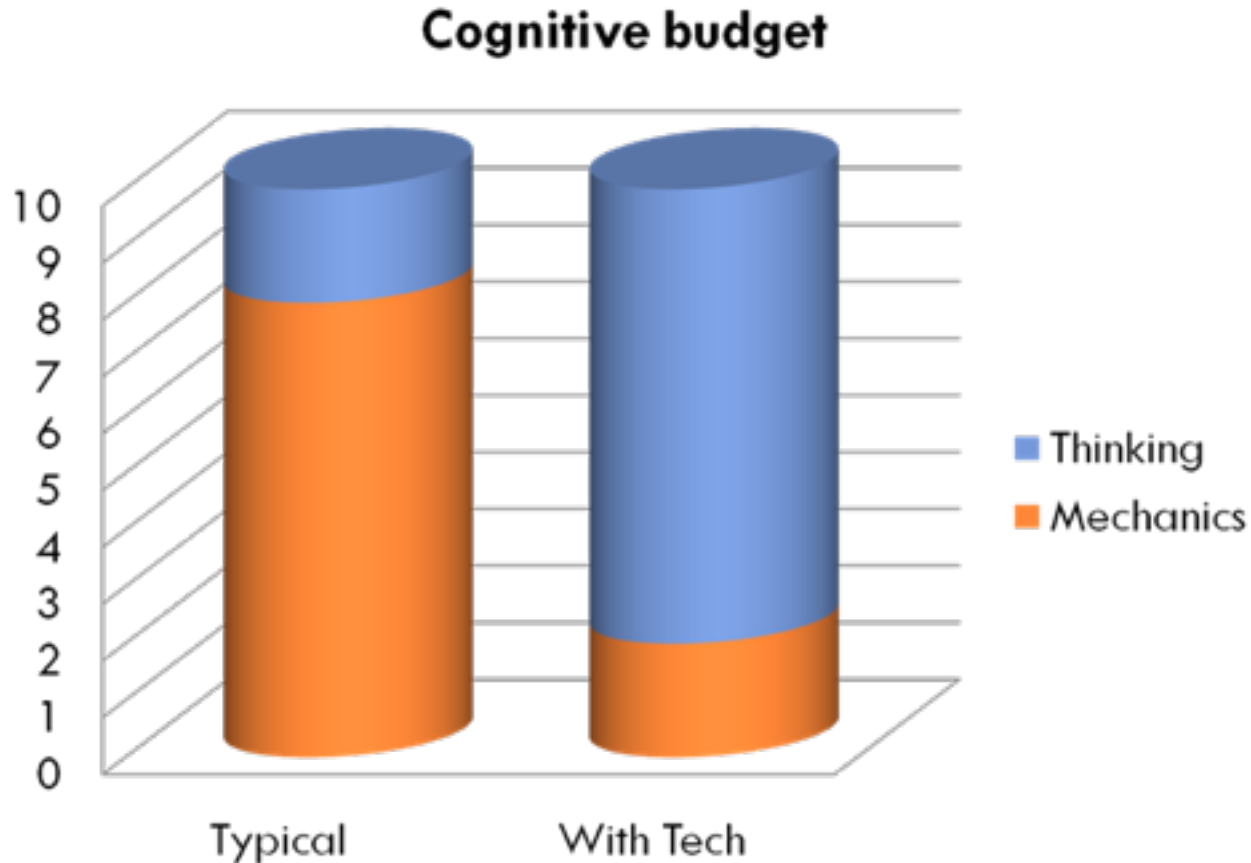 - Location of desk and outlets in class

How much Difference can Technology Really Make?
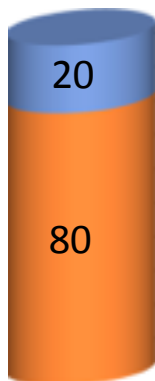

EFFORT

YIELD

Cognitive budget

Thinking
Mechanics

Typical   With Tech

Student's work completed in the typical pencil-paper form:

-low legibility
-spelling
-incomplete
-crumpled
-retrieved from
 trash by teacher

20

80

6.) List the factors that contributed to Assyrian military success?

7.) Who brought the Israelites into the Assyrian empire?

Sargon II

8.) Describe Assyria's great empire builder, Ashurbanipal.

9.) What caused the powerful Assyrians to lose their hold on the seat of power in Mesopotamia?

10.) List the achievements of the Chaldean king, Nebuchadnezzar.
- Jews conquer Judah (captured) destroyed
- fought few battles than Assyria
- built the hanging gardens
- know as builder not warrior

Student's work using AT:
- -vocabulary
- -depth of response
- -richness

80

20

Part B: Definitions: *Please choose 3 of 6 definitions (4 marks each)* ||/12

Ziggurat   Anthropomorphic Theocracy

Cuneiform   Sargon of Akkad   Siege Towers

4

1. A ziggurat is a tall tower that was made to honour the gods. They were tall because people thought the gods were in the sky. The higher the tower, the closer the priests were to the gods. Only priests could go in these towers. This showed the power of the priests.

3

2. Cuneiform is a form of writing that people used to communicate with eachother. Cuneiform is better than pictographs because you can be more exact in your text. They wrote cuneiform on clay tablets. It is alot more difficult to write cuneiform than English.

4

3. Seige Towers are big towers that militaries used to get over city walls. These towers were setup on all of the sides of the city wall. The towers were made of wood and they sometimes had protection on the sides (from arrows and other weapons). These towers made for a quick and easy access to the city while also being stealthy.

Part C: Short Answer *Please answer 7 of the following 12 questions. **You must answer the questions with asterisks beside them.***

26/32

1. Explain why the Paleolithic people were more conscious of their environment than the Neolithic people. Use examples in your answer (4)

Paleolithic people were more concious of the envirement because they relied on it. Since the neolithic people grew there own food and had there own animals it would not of matterd as much if one day there was a storm. If the paleothic people could not go out because of a storm to gather food. Or the animals they hunted were hiding from the storm they would'nt eat.

- Test of Written Spelling
- Grade 11 student
- 3rd percentile

- Test of Written Spelling
- Form B with WordQ
- 88th percentile

How Does AT Help?

- Mechanical burden mitigated
  - Expectation that student read, write, and memorize to learn accommodated for through the use of AT
- Lack of automatization accommodated for
- Organizational support (time, materials, information)
- Cognitive support (processing speed, attention, memory, initiation)
- Study skills support
- Math support
- Differentiated instruction
- Enhanced student engagement
- Positive impact on academic self concept

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Writing Challenges & AT

- Pre-Writing
  - Inspiration/Kidspiration/Webspiration
  - Google Chrome-MindMeister
  - Timers
  - Calendar

- Word Prediction
  - WordQ/SpeakQ
  - Co-Writer
  - Google Chrome – Read & Write

Writing Challenges & AT

- Dictation
  - iPad
  - Google Chrome
  - Mac
  - Dragon Naturally Speaking
  - Windows Speech Recognition
  - MS OneNote
  - SpeakQ
- Note Taking
  - Livescribe Pen
  - Apps- AudioNote, Notability, Whink, Evernote

Writing Challenges & AT

- Grammar
  - Google Chrome- Ginger, Grammarly
  - Grammaropolis
- Math
  - Google Chrome- gMath, cloudy calculator
  - National Library of Virtual Manipulatives
  - Geogebra.org
  - iPad app- modMath
- Bibliography
  - Google Chrome- Easybib, Diigo, Read & Write

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Reading Challenges & AT

- Text to Speech
  - iPad (OCR- Claro, Readiris)
  - Mac
  - Google chrome- Read & Write, Speakit, Snap & Read Universal
  - WordQ
  - Natural Reader
  - Kurzweil 3000
  - MS Word
  - MS OneNote

Reading Challenges & AT

- Attention
  - Google Chrome – Readability, Read & Write
  - Kurzweil 3000
- Reading Comprehension
  - Wikipedia- Simple English
  - Google Chrome- Readability, Read & Write (e-dictionary)
  - Kurzweil 3000 (e-Dictionary)
  - Oxford Picture Dictionary
  - Google Image Search
  - Rewordify.com
  - iPad- Quizlet, Shakespeare in Bits, Claro Scanpen
- AERO
- Bookshare.org

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Math Challenges & AT

- iPad
  - Yhomework-math solver
  - Prodigy math
  - IXL
- Khan Academy

Organizational Challenges & AT

- Inspiration/Kidspiration/Webspiration

- MS OneNote

- Livescribe pen

- iPad apps- myHomework Student Planner, 30/30, Wunderlust

- Google Chrome- Mindomo, Mindmeister, MicNote, Google keep, time tracker, stayFocused, myHomework Student Planner, Diigo

For AT use by students to be successful

– A fit between student, task, tool, and environment

– A culture of technology on site

- Technology infrastructure to support the student's use of the technology

- Access to electronic text and handouts

- Teacher-student collaboration to reduce technology barriers

- School efforts to destigmatize its use and normalize a student's need to do things differently