



The Assistive Technology Toolkit for the Adult Education Classroom

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“Advancing learning in differentiation and inclusion”

aldi INITIATIVE

***A Québec English School Boards initiative
(youth and adult sectors)
with a focus on UDL implementation***

Resources

1. Powerpoint available @ aldi.learnquebec.ca
“professional development resources”

2. Resources and tools in this presentation:

padlet.com/andrea39/PROCEDE

Our discussion today

1. Student diversity and the myth of “average”
2. What are print barriers?
3. How can we address and reduce print barriers in our Centres?
 - Creating or acquiring accessible materials
 - Using assistive technology

We know that...

We have a diverse student population that need flexible approaches to teaching and learning in order to succeed in the workplace.



A TYPICAL ADULT EDUCATION/VOCATIONAL CLASSROOM

***Students
with
emotional
difficulties***

***Students who are
second language
learners***

Students who are disengaged/unmotivated

Students with learning disabilities

“Typical” learners

***Students who are
single parents***

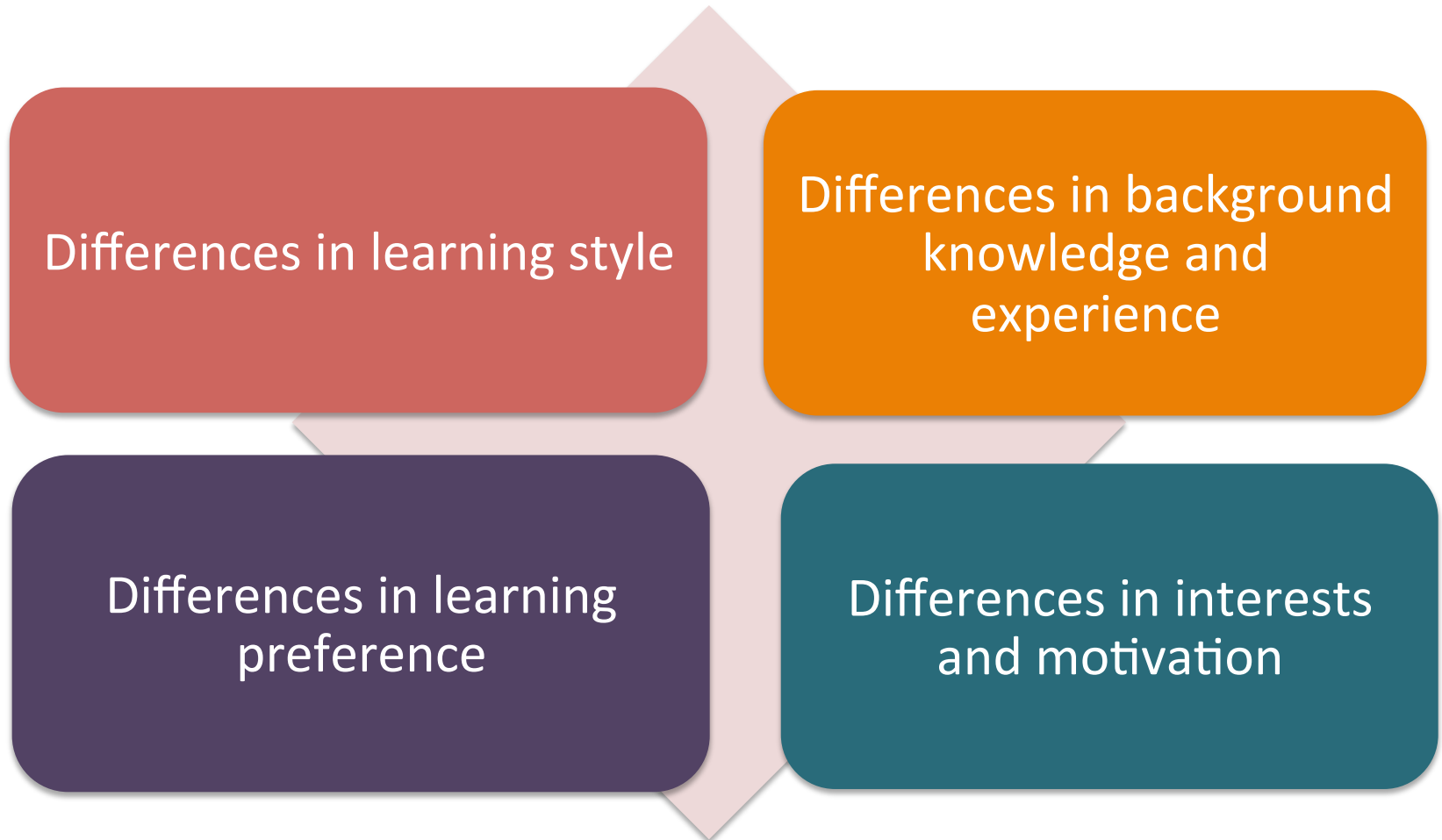


***Students with attentional and
executive function issues***

***Students who have difficult home lives/
conditions***

***Students who require
support for mental
health issues***

What does diversity look like?



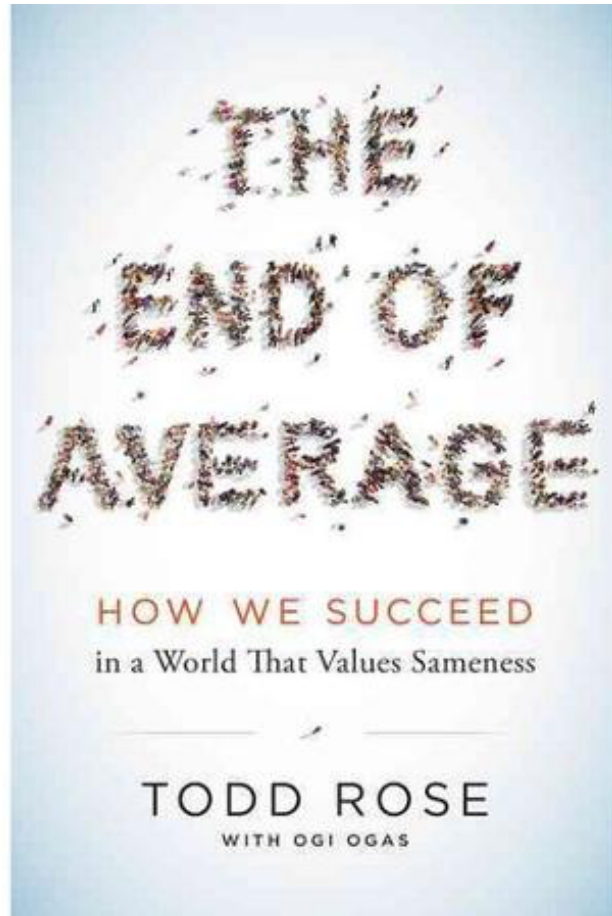
How can we teach to diversity?

1. By recognizing that there is no average “one size fits all” in education.
2. By identifying and reducing barriers to the curriculum.

The myth of average

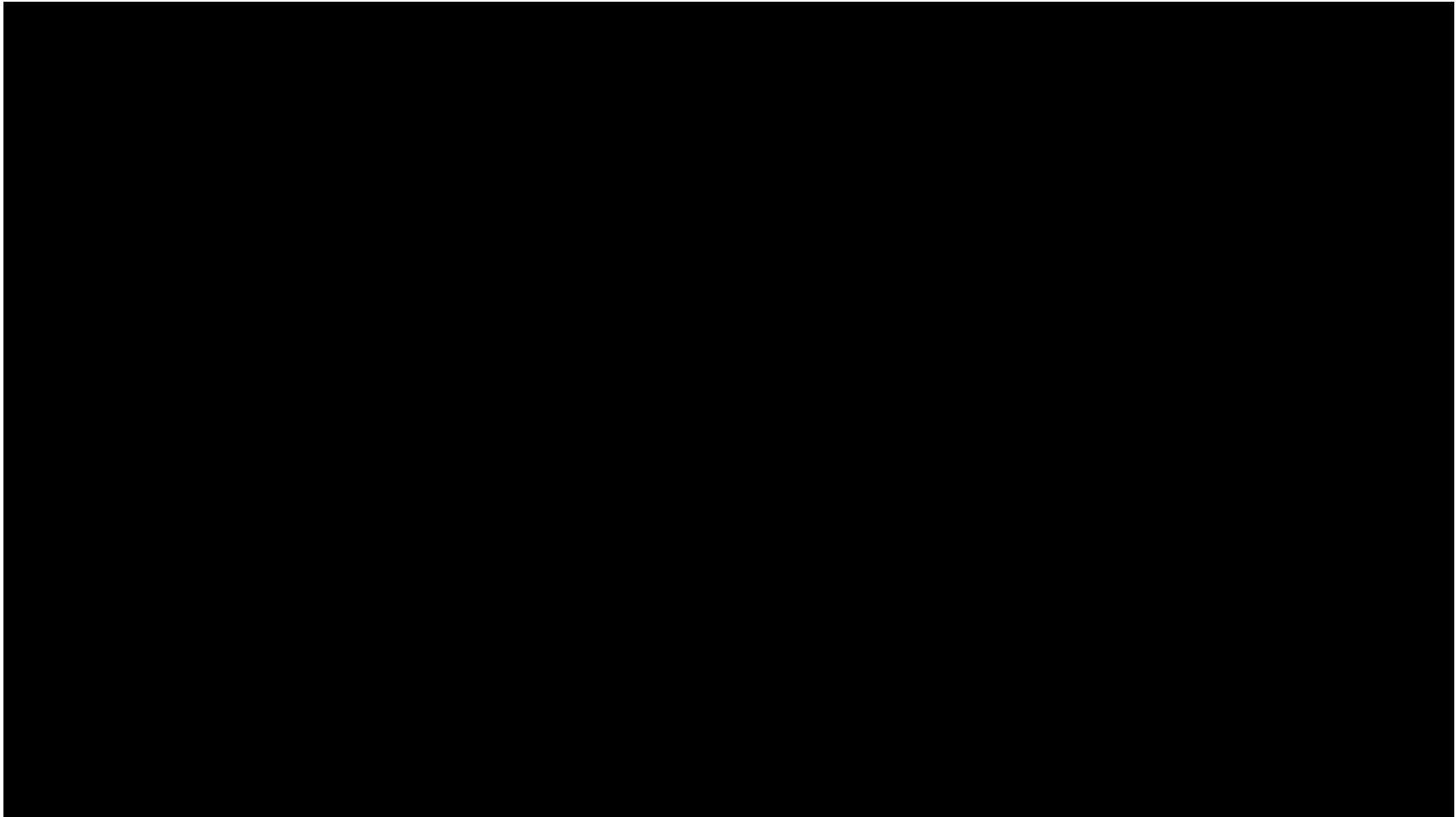
"If you design learning environments for the average, odds are you've designed them for nobody."

-Todd Rose



Human beings don't line up perfectly. There is no average learner. They have strengths and weaknesses. They all do. Even geniuses do."

— LECTURER TODD ROSE, ED.M.'01, ED.D.'07



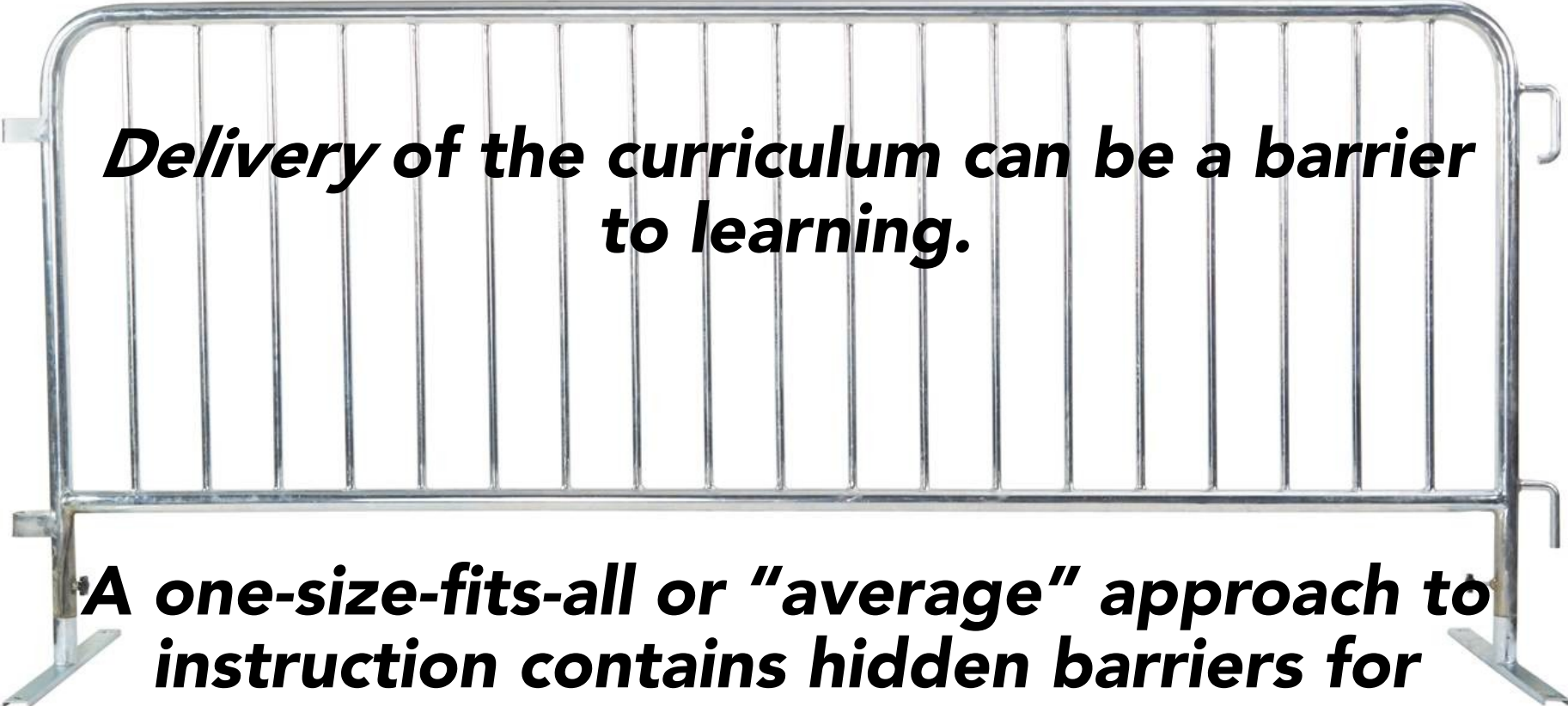
“Consider the needs of the broadest possible range of users from the beginning.”

-Ron Mace

“Ban the average” means....

- *Flexible* learning experiences that can meet the needs of many learners.
- *No retrofitting*. Designing accessible experiences that meet the needs of many learners from the very beginning...

Reducing barriers



Delivery of the curriculum can be a barrier to learning.

A one-size-fits-all or “average” approach to instruction contains hidden barriers for many learners.


***What are barriers that
students have
encountered in adult
education/vocational
education?***



A young man with light brown hair and green eyes is shown in profile, looking upwards and to the right. He has a thoughtful or perhaps overwhelmed expression, with his right hand resting on his forehead. He is wearing a dark blue or black sweater over a white turtleneck. To his right is a tall, slightly uneven stack of books with various colored spines. The background is a blurred bookshelf filled with many books, suggesting a library or study environment. The lighting is soft and natural, highlighting the man's features and the texture of the books.

What we know....

***print can be
inaccessible***



Our students need to have access to print in alternate formats so that they access content, rather than struggle with barriers that print can create.

How many students have print disabilities in our centres/schools?

- A person who cannot effectively read **print** because of a visual, physical, perceptual, developmental, cognitive, or learning **disability**
- This new term emphasizes the role of the learning environment.

How many students experience print barriers?

Many more...

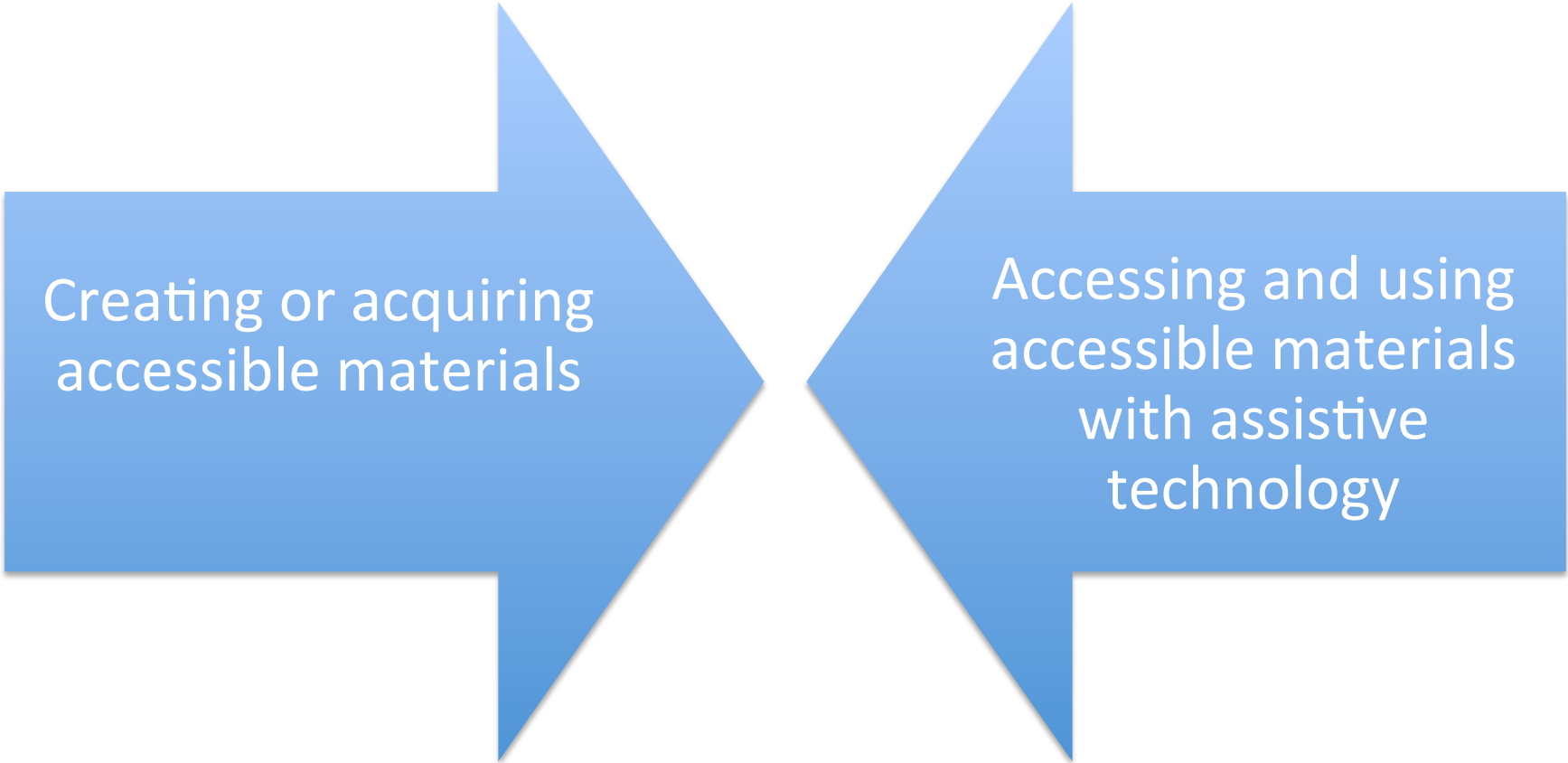


***How can we reduce
print barriers?***

~~IMPOSSIBLE~~

A close-up photograph of a spiral-bound notepad. The word "IMPOSSIBLE" is printed in large, bold, black capital letters across the page. A hand is holding a blue marker, and a thick blue line is drawn across the word, crossing it out. The background is slightly blurred, showing the spiral binding of the notepad.

Two Considerations: Reducing Print Barriers



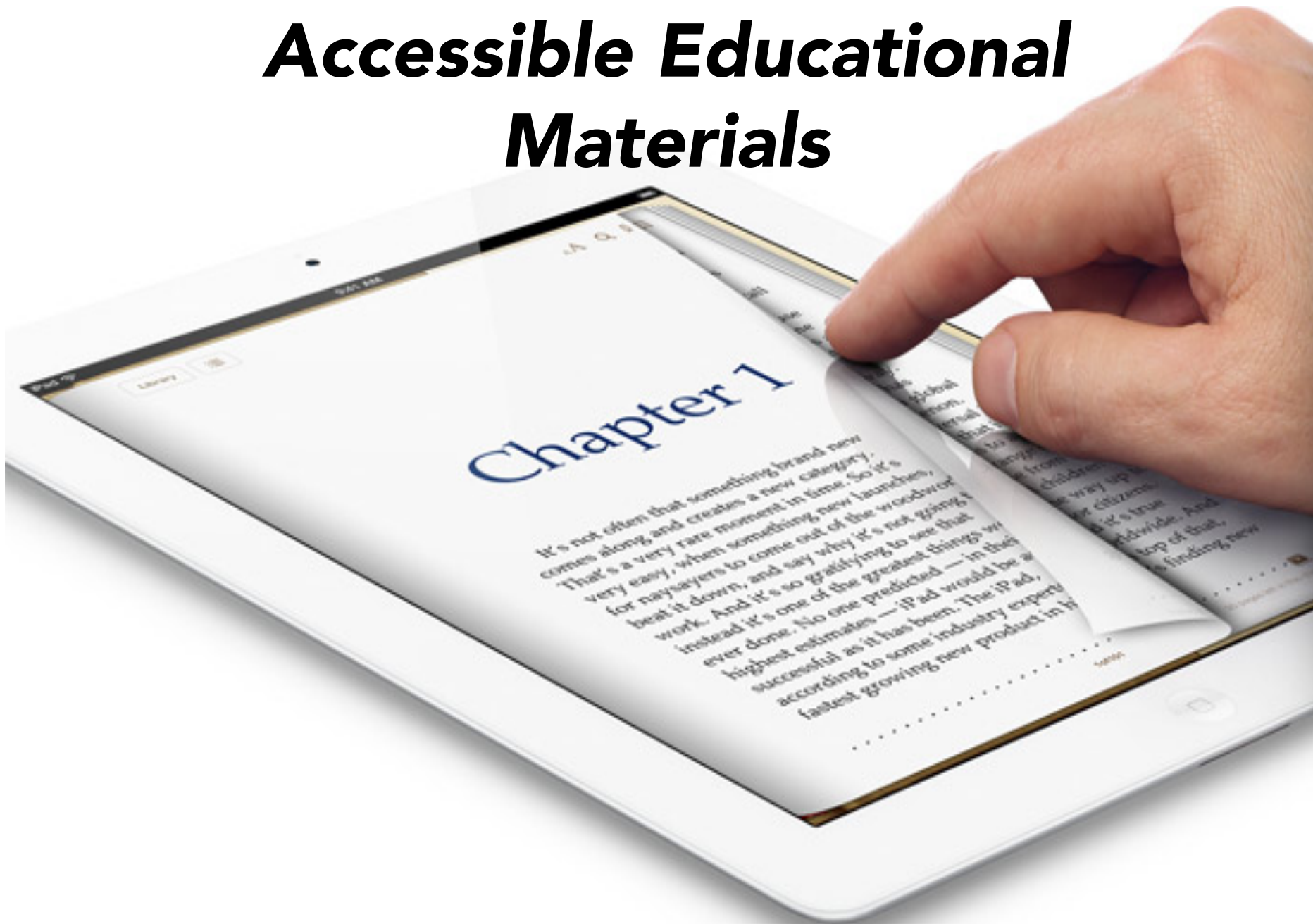
Creating or acquiring
accessible materials

Accessing and using
accessible materials
with assistive
technology

**What is an example of
accessing, creating or
using accessible
materials?**



Accessible Educational Materials



Accessible alternate formats that benefit all

audio



digital text



Accessible audio

Audiobooks:

- ePub
- MP3



Accessible digital text

- Documents in accessible file formats (DOC, PDF, RTF)
- Novels in accessible file formats (PDF)
- e-textbooks



The Assistive Technology Toolkit



What assistive technologies can be used to reduce print barriers?

TEACHING
literacy
IN THE
digital AGE

Inspiration for all levels and literacies

EDITED BY MARK GURA

Reducing print barriers

Adapting and enhancing print

- Text to speech
- Speech recognition
- Concept Mapping

Bypassing print

- Concept mapping
- Creating audio

Text to speech (TTS)

Text to speech technology means that the text on the screen is read to the student using a synthesized voice.



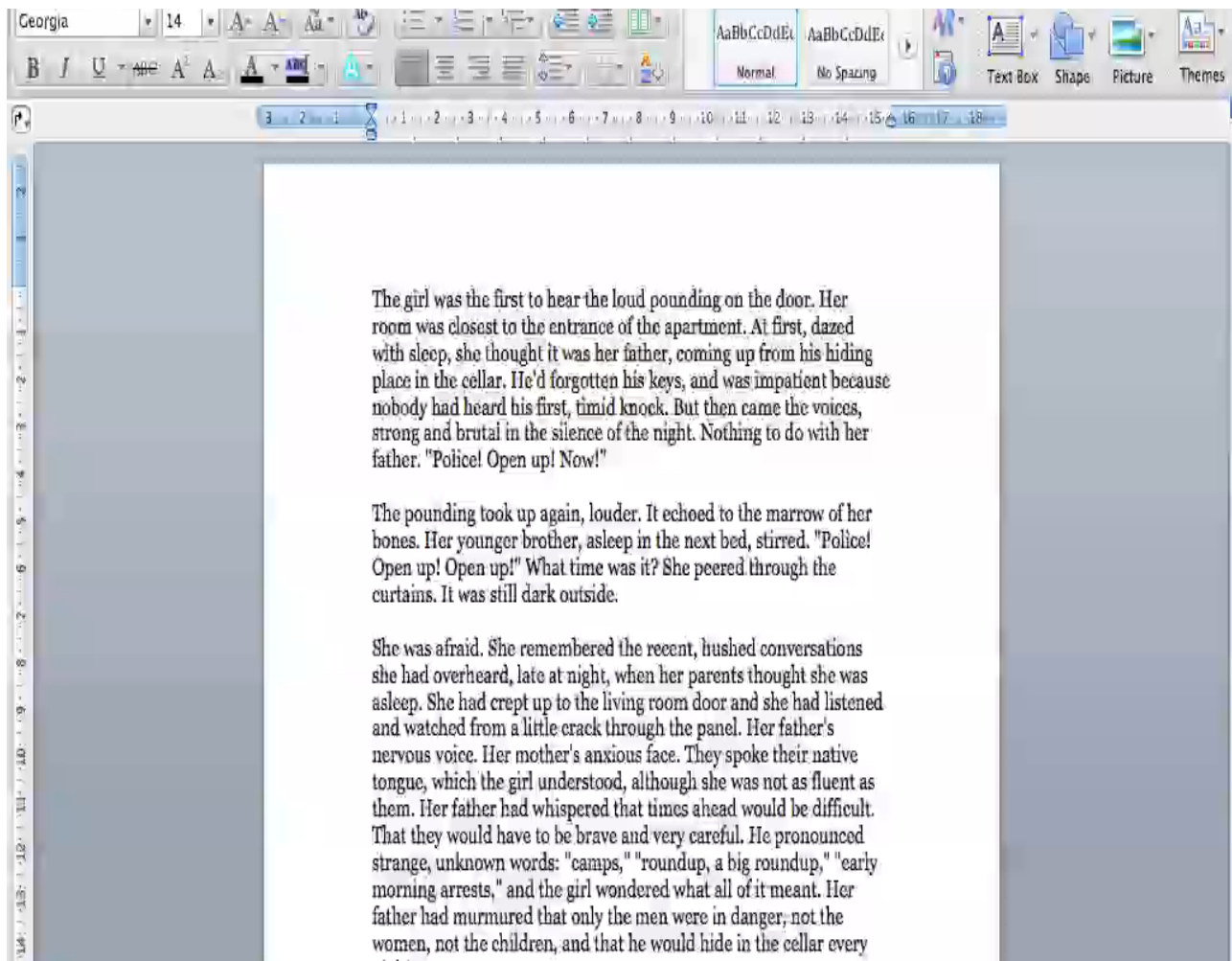
“TTS can improve the reading comprehension of students with specific deficits in phonological processing. Students can learn to decode new words when they are highlighted as they are read aloud.”

***(Fasting & Halaas Lyster, 2005;
Holmes & Silvestri, 2009).***



“TTS software can improve students’ sight reading and decoding abilities.”

(Strangman & Dalton, 2005)



Enables and empowers students by...

- Increasing independence
- Increasing access to content and opportunities to engage with text
- Allowing student to focus on the meaning of the text
- Reducing fatigue and/or frustration

Text to speech as universal

- Provides a tool for students who may not have an identified disability but may benefit from additional support
- Supports students who may only require text-to-speech for certain words or certain passages of text (ex. second language learners)

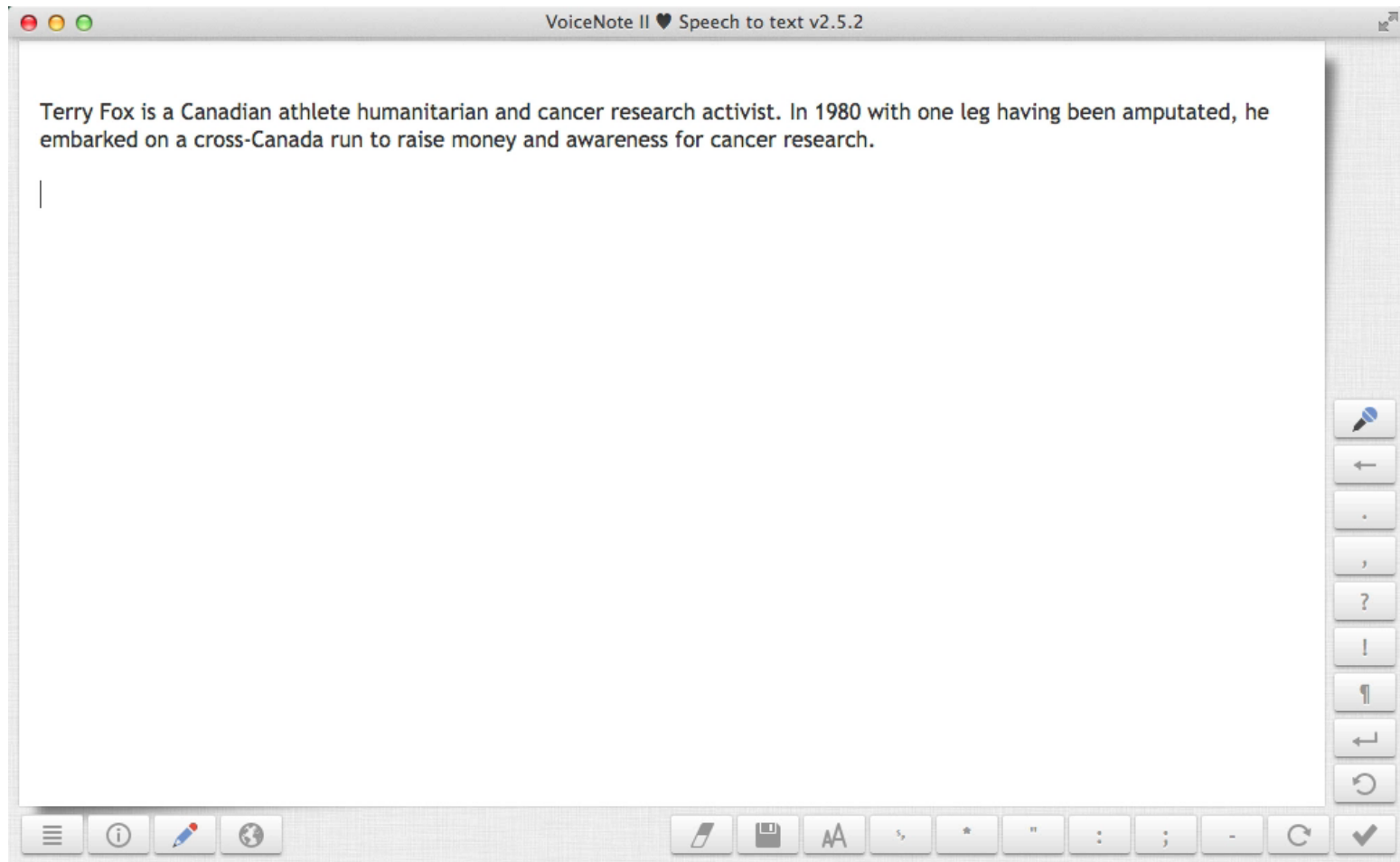
Speech Recognition

Speech recognition technology converts spoken word into text.



(*Commitment, matching and scaffolding are essential for success)

Speech recognition

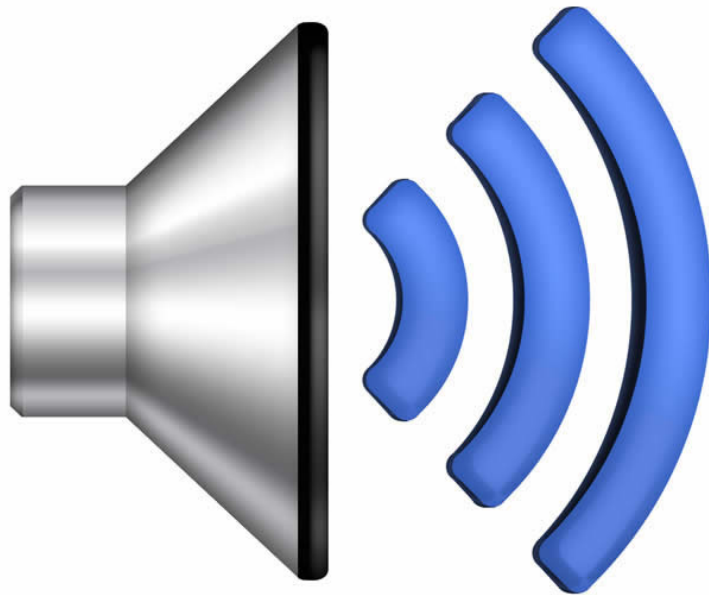


Enables and empowers students by:

- Shifting the focus from the mechanics of composition to that of expression of thoughts and knowledge.
- Providing a viable option for students who are better expressing themselves through oral language rather than writing.

Creating audio

Audio is a powerful medium. It can be used as an alternate means to print, to convey meaning and to enhance learning.



Vocaroo

<http://screencast.com/t/cbfcJkfXvYfE>

Generating ideas



Before writing, I:

Say everything I know about the topic here in about 5 minutes:



Summarize my 3 main points here:

1.

2.



Summarizing as a reading strategy:

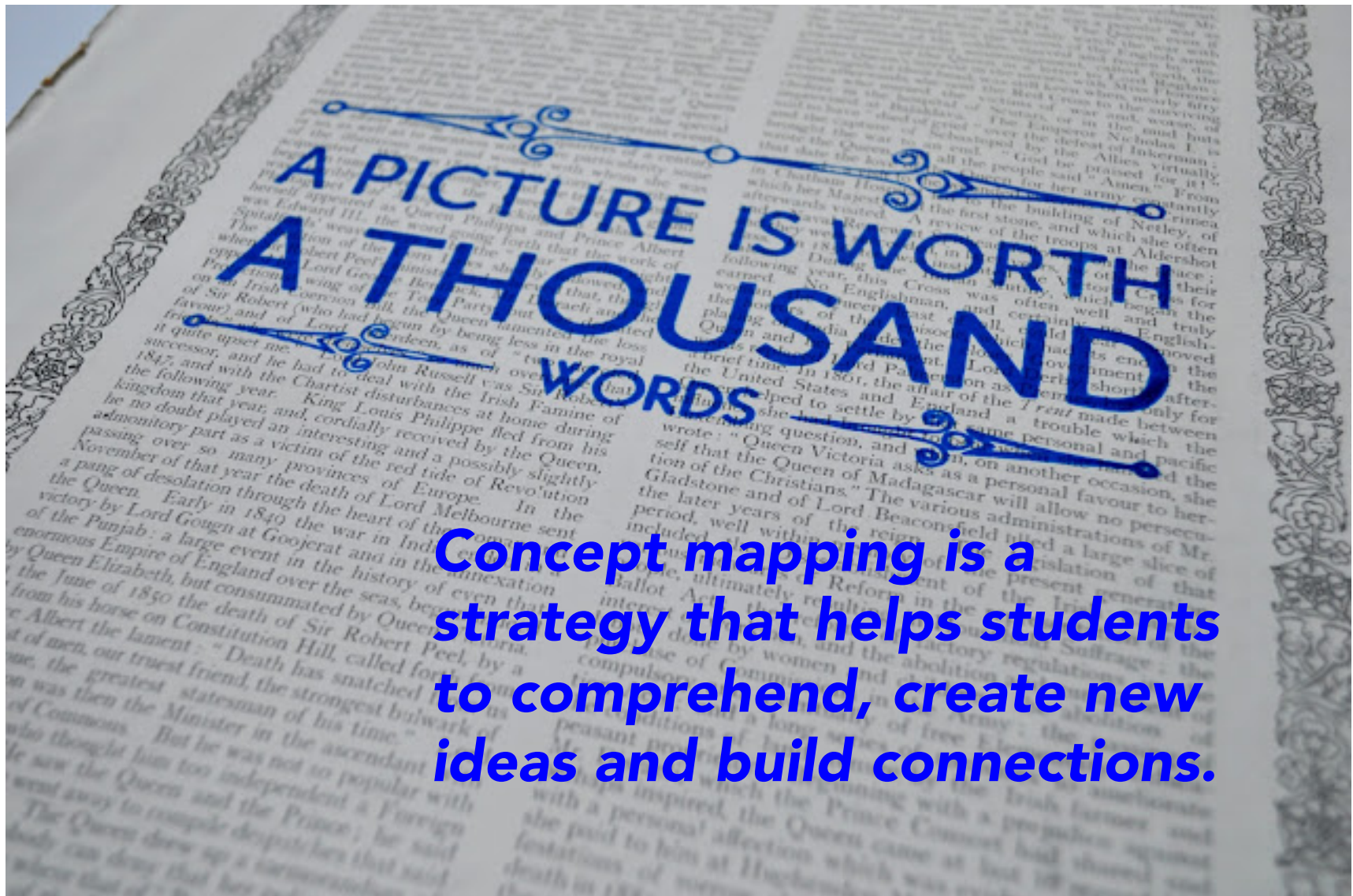
As you finish reading each paragraph or key section of the passage, **summarize** the main ideas by writing, or speaking and recording in one or two complete sentences.

Main idea one: (write or record here)

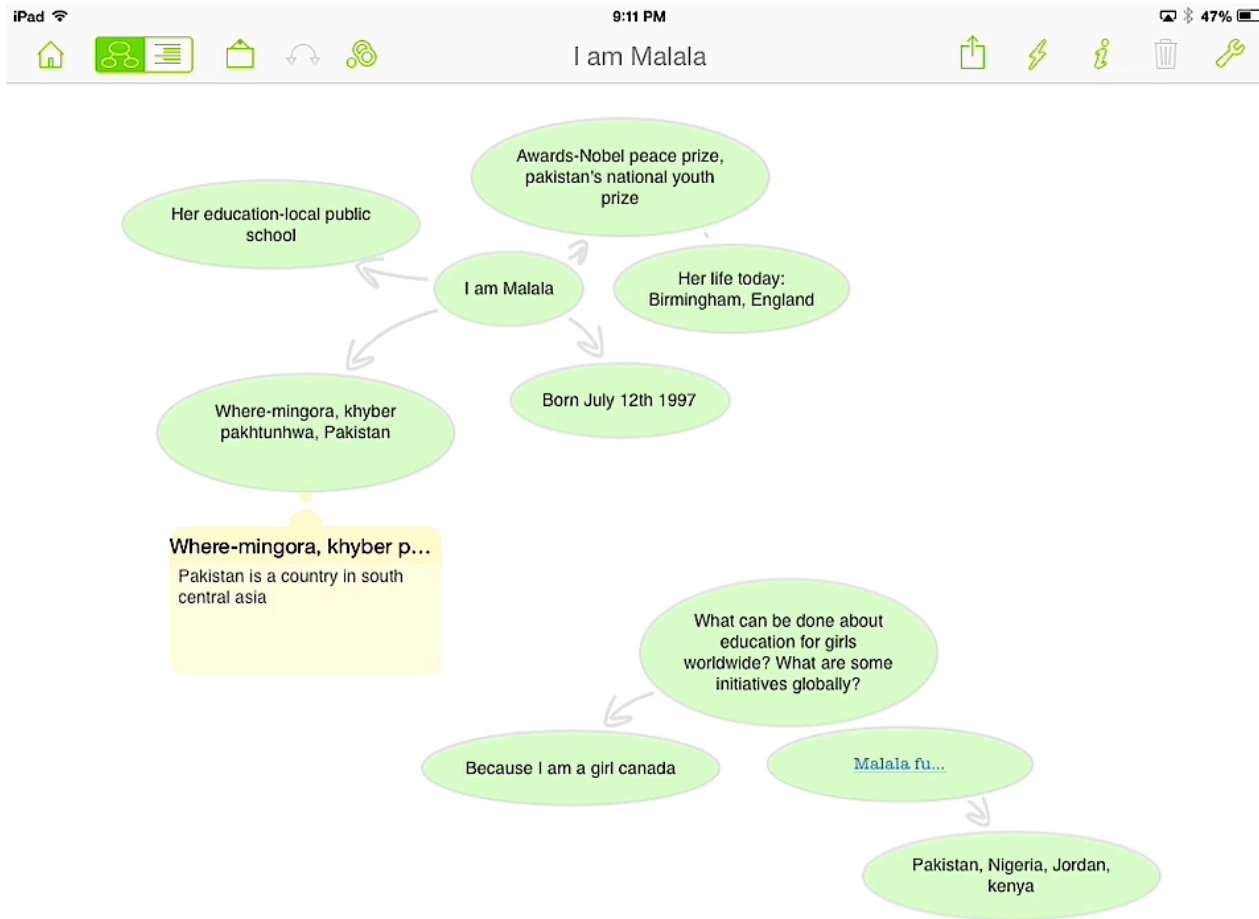
Main idea two: (write or record here)

Enables and empowers teachers and students by:

- Teachers can easily create instructional materials, provide verbal instructions and capture lessons for future listening.
- Providing opportunities to listen to content/instruction independently, without distraction and at their own pace.
- Demonstrating their understanding of learned concepts through alternate means.



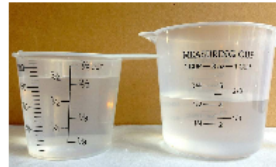
Concept Mapping



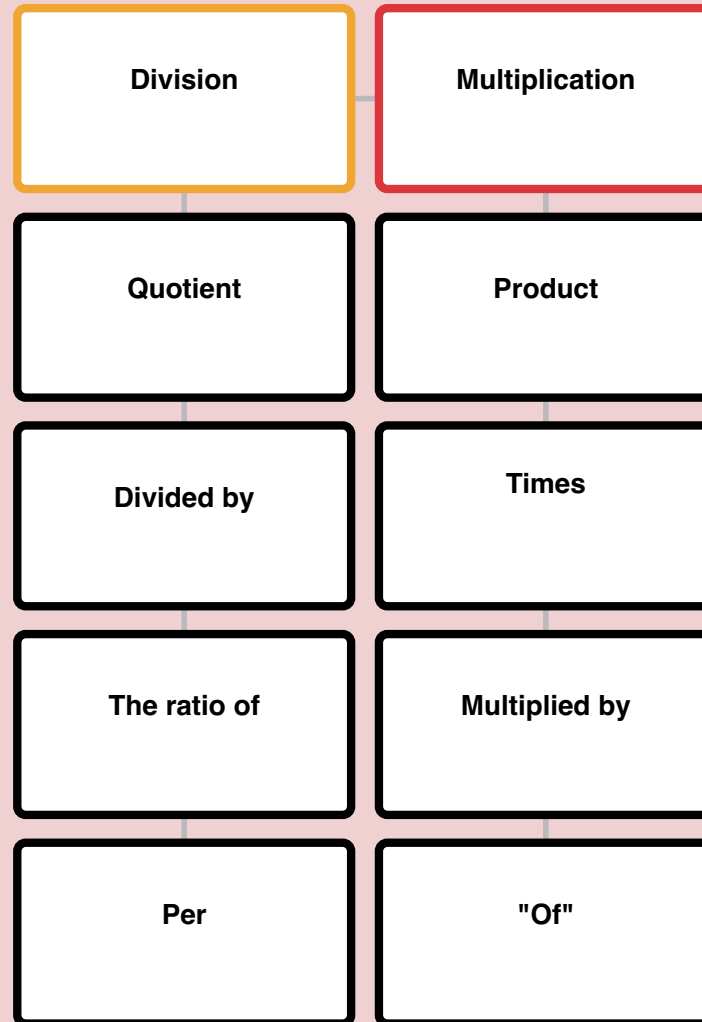
my new popplet

[home](#)[view all](#)[export](#)

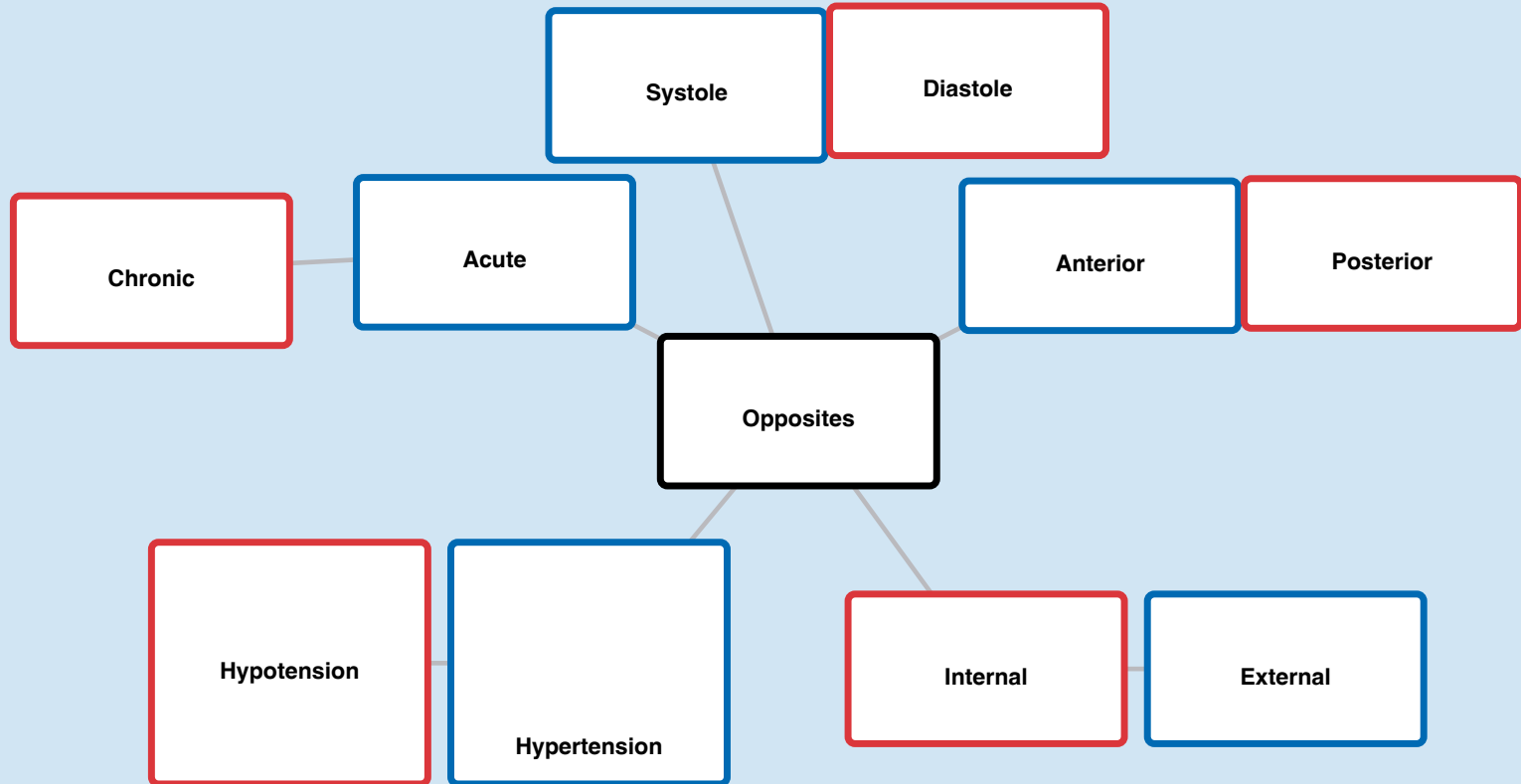
Making Mac and cheese



math vocabulary



medical voc ed



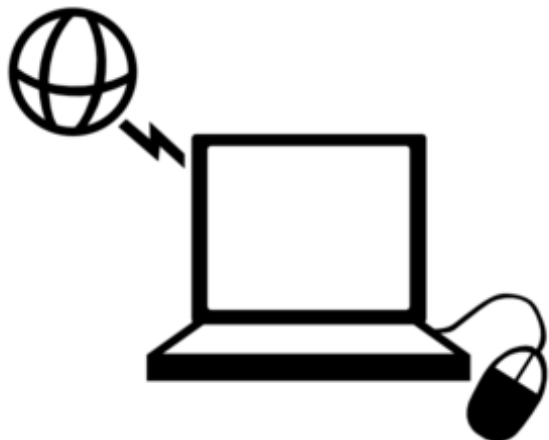
Enables and empowers teachers and students by:

- Demonstrating and understanding the relationship among ideas and the “big picture.”
- Utilizing one the most effective methodologies for teaching and learning: visuals.

Share your thoughts and ideas

How will you begin?





aldi.learnquebec.ca

Thank you!

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