

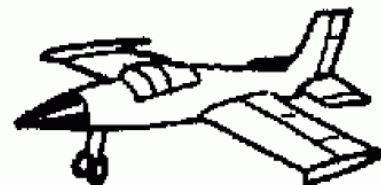
# Assistive Technology

Tips and Tricks



Central Alberta 21st Century  
*Technology and Learning Symposium*

STEP 1: ASSEMBLE PART A TO PART B. STEP 2: GLUE THESE PIECES SECURELY. STEP 3: FIND PART C AND CONNECT TO PART D...



# Universal Design for Learning

## Multiple Means of Representation

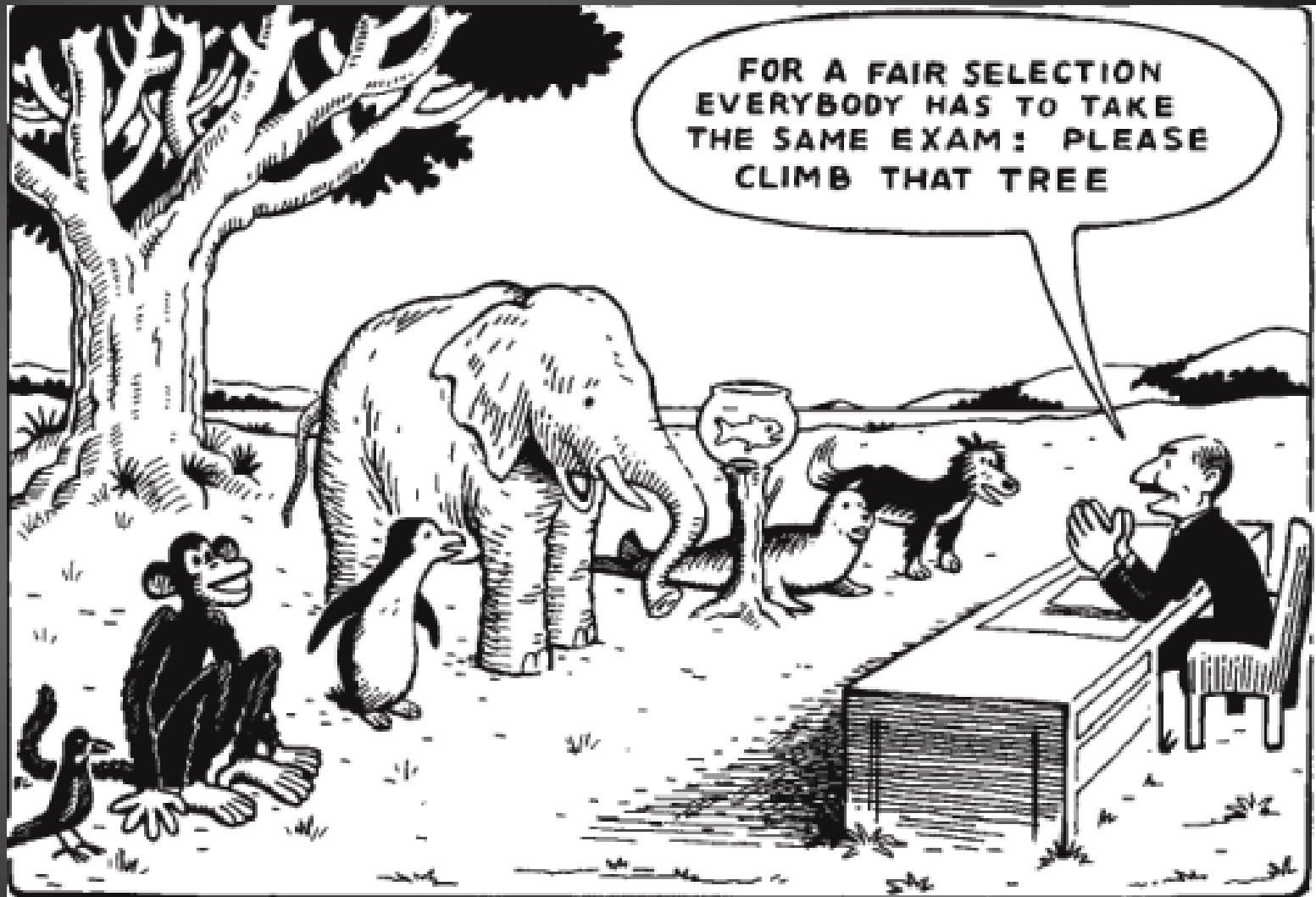
- Providing different ways to acquire information

## Multiple Means of Expression

- Providing different ways to express learning

## Multiple Means of Engagement

- Providing learning opportunities that incorporate individual interests, include appropriate challenges, and increase motivation





**Accommodations.....**

## *Test Writing Accommodations for Students*

### **Overview**

Alberta Education is committed to accommodating the learning needs of all Alberta students so that they may have fair and equitable access to educational opportunities, including the writing of achievement tests.

To ensure fairness and equity for all students, Alberta Education permits achievement tests to be administered using one or more of the following accommodations:

- Accommodation 1: CD version of the test – visually impairment
- Accommodation 2: CD version of the test – learning and/or physical disability
- Accommodation 3: Additional writing time – up to 2 times the scheduled time
- Accommodation 4: Calculator – Grade 3 Mathematics only
- Accommodation 5: Scribe
- Accommodation 6: Large print version
- Accommodation 7: Braille version
- Accommodation 8: Reader
- Accommodation 9: Sign language interpreter
- Accommodation 10: Recorded response
- Accommodation 14: Miscellaneous

The goal in permitting the use of writing accommodations when administering achievement tests is to promote fairness and equity by removing obstacles to performance. Consequently, accommodations are neither intended nor permitted to:

## ***\*NEW Diploma Examination Accommodations***

### **OVERVIEW**

Alberta Education is committed to providing fair and equitable access to educational opportunities for all students. Ensuring fair, equitable access to diploma examinations and consistent application of examination standards requires standardized criteria for accommodations. Such accommodations are reserved for students with special diploma examination writing needs for whom the writing of a diploma examination would be inequitable without a specific accommodation.

The goal of accommodation(s) is to remove obstacles to completion and provide access to the examination, not to optimize or enhance performance. Therefore, accommodations are not intended to:

- alter the nature of the construct being assessed by an examination;
- provide accommodated students with an unfair advantage when compared to students taking examinations under regular, standardized conditions; or
- compensate for a skill or knowledge deficit.

### **ACCOMMODATION TYPES**

Diploma Examinations may be administered using one or more of the following accommodations:

- |   |                              |
|---|------------------------------|
| 1) CD version (for visual impairment)               | 9) Sign-language interpreter |
| 2) CD version (for learning or physical disability) | 10) Recorded response        |
| 3) Extra writing time                               | 11) Franklin Language Master |
| 4) Frequent breaks                                  | 12) Coloured Paper           |
| 5) Scribe   | 13) Text-to-speech software  |
| 6) Large-print version                              | 14) Speech-to-text software  |
| 7) Braille version                                  | 15) Ambient Noise Audio      |
| 8) Reader   |                              |

#### *Unique Accommodations*

In unique circumstances, a student may require an accommodation not listed above. If a suggested accommodation for equitable access is not listed, arrangements may be possible through Alberta Education (see *Alberta Education Approvals* below). When students request unique accommodations, the school must contact the Special Cases and Accommodations team, which will determine the feasibility of such accommodations on a case-by-case basis. Unique accommodations are to be reported on the *Principal's/Chief Presiding Examiner's Statement*.

# THE PARENT SIDE<sup>®</sup>™



Mixed Messages



INSPIRED BY A PUBLIC SCHOOL STUDENT WITH DISABILITIES



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CLEARING A PATH  
FOR PEOPLE WITH SPECIAL NEEDS  
CLEARS THE PATH FOR EVERYONE!

# AWE INSPIRING MADNESS

A - WARENESS

W - ILLINGNESS

E - FFORT



# Excellent Learning Environments...



# Assistive Technology

ATL is the devices, media and services used in learning environments to overcome barriers for students with physical, sensory, cognitive, speech, learning or behavioural special needs to actively engage in learning and to achieve their individual learning goals.

<http://education.alberta.ca/admin/technology/atl.aspx>

# AT Continuum

**Low-tech** options are usually easy to use, have a low cost, and typically do not require a power source. Often can be picked up at the dollar store.

**Mid-tech** are easy to operate but typically require a power source.

**High-tech** are usually complex and programmable and include items that require computers, and/or electronics, to perform a function.

# Assistive Technology Continuum



## Low Tech

- Raised line paper
- Sticky notes
- Whiteboards
- Ergo pens
- Pencil grips
- Positioning Aids
- Tracking Aids
- Contrast Aids
- Coloured notepads
- Recordable buttons

## Mid Tech

- Scanning Pens
- Electronic Dictionaries
- Digital Recorders
- Calculators
- iTouch

## High Tech

- iPad
- Chromebook
- Laptop
- Netbook
- Digital readers
- Braille readers
- Scene Eye
- Print Magnification
- Communication Aids
- Switches
- Alternative Keyboards
- Software



June 15, 2011



CORNING

ENABLING A FUTURE OF COMMUNICATION,  
COLLABORATION, AND CONNECTIVITY.

April 3, 2010  
100M  
October 2012

Social Media is about Relationships

0:00 / 2:35

Leading Change...



**edtechteacher**

*Leading Change in Changing Times*



Student

Environment

Task

Technology/Tool

# SETT Framework

## Things to keep in mind when using Assistive Technology

- What are the challenges the individual faces: Physical, visual, reading, writing?
- Research, network and visit others who may be using similar technology
- Consider a range and combination of options (no, low, high)
- Question usefulness and practicality of applications
- Explore other accommodations and solutions
- Try before you buy whenever possible
- Can the technology carry over into real life beyond the classroom?
- Will the technology help the individual achieve the outcomes?
- Is it easy to learn? Is the individual comfortable with it?
- Does it enhance the individual's strengths?

# SETT Framework

- Can the individual use the technology independently?
- How effective is it? Is it affordable and cost-effective?
- Is it portable and usable in a variety of settings?
- Ensure it can 'grow' with the individual's needs
- An individual may require more than one tool to complete tasks in different settings
- Encourage the use of technology to be used in all curricular areas if possible
- Is it compatible with other software that is already being used?
- Encourage ways for the tool to become useful for school and home
- Continually assess and monitor progress
- Is it working, are the outcomes being achieved?

# AT In Alberta

- Alberta Special Needs Student Statistics
- Alberta Education ATL
- CBE AT Toolkit

# Written Output

If our learner is faced with challenges to written output, perhaps we should examine a product designed solely for that task:

- Multimedia Writing Support Software
- Word Prediction
- Mind Mapping
- Talking Word Processors
- Speech Recognition



# Word Prediction

WordQ is a software package designed primarily for word prediction.

Word Prediction is often bundled with the more comprehensive software packages such as RWG

## WordQ

Comprehensive Word Prediction program

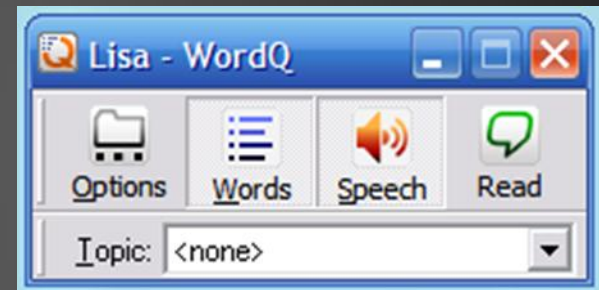
Available in French and English

Limited screen reading ability

Learn phrases, jargon

Used as either a real time spell check or to aid in getting an individual's thoughts on paper

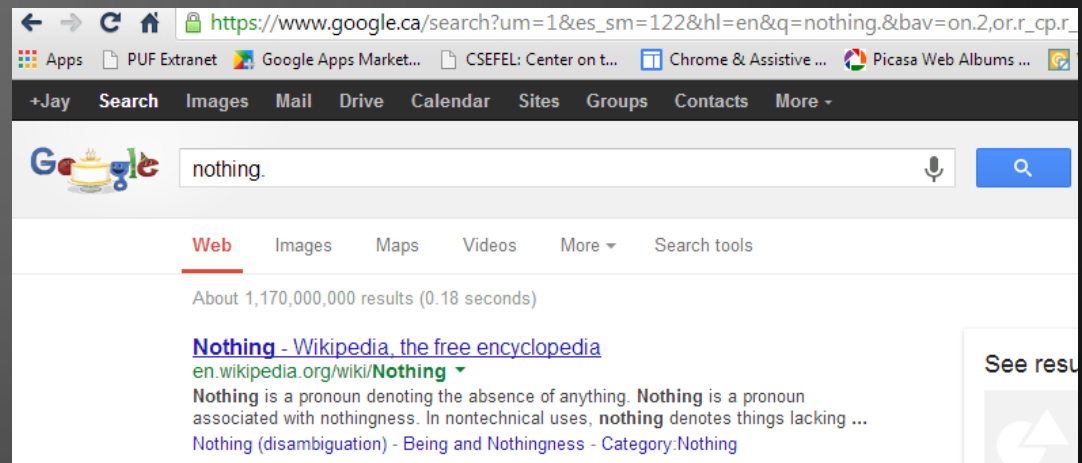
*Allows students to take risks*



# Speech Recognition



- Dragon Naturally Speaking / Dragon Dictate
- WordQ & SpeakQ Bundle
- Read & Write Gold



## Comprehension and Decoding

How do we accommodate the student who spends far too much time decoding every single word, and has to read text several times to understand it?

### Text to Speech Software

Allows individuals to take either printed text or electronic text and have it “read” to them

- Read & Write Gold



# Text to Speech Software

textHELP Read&Write Gold



**WordTalk**



Free text-to-speech plugin for Microsoft Word

# Communication Apps



<http://itunes.apple.com/WebObjects/MZStore.woa/wa/viewMultiRoom?fclid=399470755&mt=8>

# Apps for...

- Visual scheduling
- Self regulation
- Behavior modeling
- Enhance independent functioning
- Behavior modification
- Social stories
- Anxiety
- Accessibility



# Points to Ponder

- Laptop vs. Tablet vs. Desktop
- System requirements
- Hardware compatibility
- Future versions
- School/Classroom support



# Mobile Devices – Pros and Cons

## PROS

- Mainstream technology/  
Societal norm
- Attractive price point
- Accessible to people quickly
- Other apps: educational,  
entertainment, schedules,  
rewards
- Reduced fear factor

## CONS

- Durability
- Sound
- Technical Support
- Distraction of other apps \*\*
- Language system \*\*
- Access\*\*

# Assistive Technology

## Never a cure all

- ensure the support network as well as the user is well versed with the AT Solution.
- Implementing learning strategies - software will assist in reaching goals

## Evaluate AT based on desired outcomes

## Resources and research

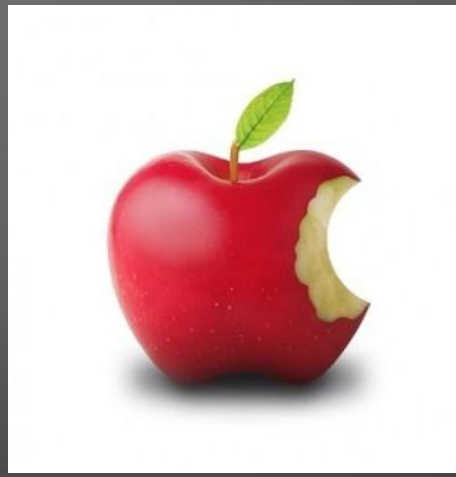
## Assess, Evaluate, Train

# Tips and Tricks...

...something borrowed



If you can think of a need, there is a solution already out there...





# Resources

- Assistive Technology – Along the Continuum, Lisa Boone
- Alberta Education
  - <http://education.alberta.ca/>
- Curriculum Services Canada
  - <http://curriculum.org/storage/108/1278482872AssistiveTechnology.pdf>
- Alliance for Technology Access
  - <http://www.ataccess.org/>
- AssistiveX
  - <http://www.assistivex.com/public/>
- Assistive Technology Links, Industry Canada
  - <http://www.at-links.gc.ca/>
- Assistive Technology Industry Association (ATIA)
  - <http://www.atia.org>
- Assistive Technology Toolbox
  - <http://www.nsnet.org/atc/tools/>
- Ottawa Network for Education
  - <http://www.onfe-rope.ca/k12/?categoryid=students&pageid=resources>

Questions?

Thank you!

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