

Catherine Isles

Assistive Technology Learning Solutions Classroom(AT-LS)
Glenrose School Campus

History

The AT classroom is part of School Rehabilitation Services (SRS)
at the Glenrose Rehabilitation Hospital in Edmonton, Alberta.

The Classroom was named after Catherine Isles,
whose family sponsored the opening in

Nov 2007



- The Process
- Action Plan
- Length / Intensity of service
- Loan Pool



SETT Framework

- The purpose of the SETT is to analyze what the student needs to do that they are currently not doing
- The goal of Assistive Technology is not to make the a specific tool fit the student, but rather have the student fit the selected tool.
- **S – STUDENT**, The person needing the assistance
- **E – ENVIRONMENT(s)** in which the student participates in
- **T – TASKS**, activities required for participation within the environment
- **T – TOOLS** and strategies needed for the student to address the tasks



Student:

What are the students strengths, abilities, accomplishments and motivators?

What unique learning needs does the student have?

What are the long term goals of the student – university? careers?

What behaviors (positive and negative) affect learning?

Are there any physical or cognitive limitations to consider?

What is their fine motor ability, how are their visual perceptual skills, can they visually track, how do they keyboard?



Environment:

What is the typical learning environment for this student?

What materials and equipment are available to the student?

What is the physical set up of space?

How does instruction take place (lecture, lab, small groups, individual work etc.)?

What supports are available to the student?



Tasks:

What does the student need to do that they are currently unable to do?

What are the critical activities that need to be done?

What is everyone else doing in the class?

What activities are naturally occurring in the environment?

How are activities modified to accommodate the students learning needs?



Tools:

Identifying the “things”

No-tech, Low-tech, Mid-tech and High-tech options

What strategies could be used to increase performance?

How will the tools best be used?



Case Study- Anna -

Referral initiated by parent (rather than by the school –school was aware)

School Rehabilitation Service Coordinator received referral paperwork

Contact was made with school and parent

Parent & School questionnaires completed

School provided applicable documentation to Coordinator (for example, Previous psychological testing, IPP, Speech Language Pathology/OT Reports etc.)

Coordinator brought referral package to the team, team determined a contact person who made contact with parent and school and SETT meeting was arranged.



Student - Anna

Diagnosis: LD: Dyslexia, mathematics disorder, disorder of written expression: ADHD (inattentive type)

Strengths: hard working, insightful, good organizational skills, good advocate for herself, good visual skills, generates good ideas for writing, fine motor ability, keyboarding, strong auditory memory, IQ: High average range (84th percentile)

Challenges: poor working memory (making functional classroom skills a challenge), has difficulty engaging in books, decoding, spelling (phonetically ex: cusin / cousin; esaly / easily; rateo / radio)



Environment – Anna

School - Junior High School

Grade 8; IB Program

- Moves from class to class – has different teachers, approximately 20 students per class
- 2 Computer labs (students can bring laptops to class)
- Read Write Gold 10 (no home edition)
- No wireless connection at school
- Inspiration – reportedly not being used
- School Zone where she can get assignments, notes and worksheets. Gmail account set up.
- Digital math and science text book available
- *Home:* Windows computer and her family is willing to purchase AT once trialed



Tasks - Anna

Reading

Group Reading: Graphic Organizers

Independent Reading: Textbook (Math / Science), Photocopied & Online
Articles, 2 Novels, Short Stories, Poems

Unit Tests & District Reading HLAT (Reader, Text to Speech)

Writing

Note-Taking : Skeleton (Paper / Pencil)

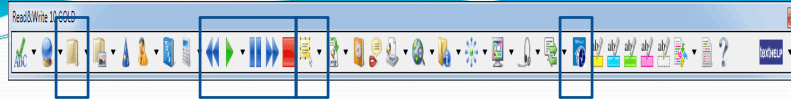
Worksheets, Graphic Organizers (Paper / Pencil)

Essays: Planning / Rough Draft / Final Copy (Paper / Pencil)

Test & District Writing HLAT (Paper/Pencil)

Math

Math Applications / Problem Solving (calculators permitted)



Tools – Anna

Reading

- Text to Speech (Read & Write Gold PDF Aloud)
- Digital Worksheets / Textbooks (LRC Digital Book Repository)
- Ebook / Audio Book (Kindle App) – Novel Study
- Digital Recorder: MP3, Audio file



Writing

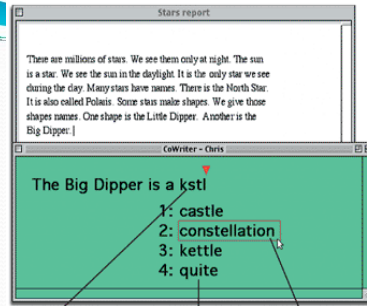
- Spellchecker / Dictionary / Thesaurus (Franklin / Read & Write Gold / Universal Design for Learning features, MSWord)



Tools

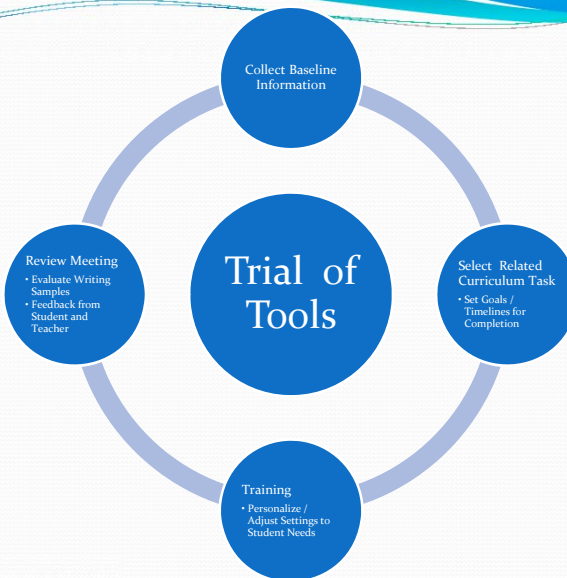
AT Trial #1: Word Prediction

- Read & Write Gold
- Co: Writer
- Franklin Spell Checker



AT Trial # 2: Voice Recognition

- Dragon Naturally Speaking 11.5



Voice Recognition Technology

- Common Uses: Call Centres, Smartphones, Medical / Legal Transcription
- Discrete vs. Continuous Speech
- Changes Speech Sounds to Text or Commands to Control the Computer.



Who is it for?

Teachers

- Composing in Word, PowerPoint, Inspiration, Notebook, Email
- Editing student's typed work / making comments

Students

- Access Issues
- Learning Disabled
 - Disorder of Written Expression
 - Poor Spelling Ability



Student Example without Dragon

1#

My favoit ting in the worled is most likey Nazi zombies

I like it because it add more to the game waw™. The fisert map I find not as scary because iv plaed it to much but the zombies veduct is scary because of the noice it mackes the the 4 map der reac becauseit has its on therl behied it and then the 3 map sh no ma or zombie swamp all the map exspt the 1 have a ther behied them. I wold tell you but it to long if you whant to see them than look on you tube call of duty zombies hidden theory the look for the aother kill finland. Anway I need to tell about the randoe weponse box you can get stuff like a ray gun or a wuder wallf.

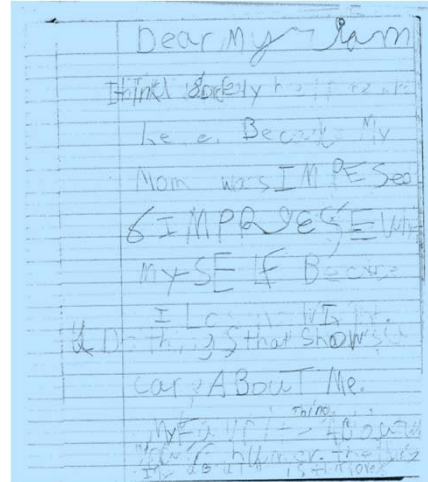
Student Example with Dragon

Eventually Luke got bored of playing with his toys and looked into the vents on the attic, he noticed that he could see the outside where the construction was. One day when everyone left their houses he tried to do something fun but his dad said no to his cooking was nothing more than a piece of crap so as he got kicked back to the attic he noticed a girls face in a window. So one day he decided that he should go see that girl that he's on the window is if their child or if she's really there for the because he wonder if she existed he knew she had to be a third child if he was real because the sports family already had two kids. finally Luke decided to find out for himself.

Grade 5 Student

Low Average Reading Ability

Disorder of Written Expression



Slave Lake Fire

1. When and how did the fire start in the town?
 The fire started by some Embers that fell from the forest into the town.

2. What did provincial officials report on May 16?
 Provincial officials reported that 40% of the town has been damaged or destroyed.

3. Define ember.
 Ember is a piece of coal, wood etc still glowing ashes in the ashes of a fire.

4. Where have residents had to live?
 Residents had to live in shelters in Athabasca, Westlock and Edmonton.

5. What help is being offered to the people of Slave Lake?
 People are helping by donating money to the people of Slave Lake.

Critical Thinking

1. Has anything like this ever happened to you? How do you think the people of Slave Lake are feeling this week?
 I think they're feeling really really sad.

Word power

- The market had a huge variety of apples.
- They kept the fire blazing through the night so it would be easier to light in the morning.

Student Considerations

Problem - Solving

- Insight / Awareness as a Learning
- Frustration / Tolerance to New Tasks
- Patience, Perseverance, Persistence

Cognitive Skills

- Memory demands
- Organization
- Attention
- Self-monitoring and self correction

Reading/Writing

- Reading level
- Error recognition
- Use of correction box

Language Skills

- Grammar knowledge
- Generating in complete thoughts

Speech Quality

- Pronunciation and speech patterns
- Intelligible articulation
- Voice quality
- Adolescence (voice changes)



Environmental Considerations

- Noisy Classroom Environment / White Noise
- Train student in the environment where they will be using Voice Recognition
- USB microphone headset
- “Cold/Flu season”
- System Requirements:
 - (2GB) older students,
 - Increased RAM needed for younger children (3GB)
- Physical Appearance of Wearing Headset





Multi-Input Approach

Hot
Keys



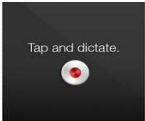
Quick - Efficient
Dictation



Mouse Dragon

Voice Recognition Options

- Microsoft Voice Recognition
- Word Q - Speak Q plug-in
- Dragon Naturally Speaking 11.5
- Dragon Dictate for Mac
- Dragon app (iPhone / iPad / iPod)

Training Support (free resources)

Training Modules

- Speech Profile Tutorial (AT-LS Classroom)
- VR Curriculum (AT-LS Classroom)
- Dragon University (online training)
<http://dragoncontent.nuance.com/customerPortal/training/instructionalVideos/intro/main.html>
- Speak Q (online training) www.gogsoftware.com



Links:

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SETT –Joy Zabala

www.joyzabala.com

