Ablenet Webinar:
Feature Match
What is it?

Kelly Fonner
Kirk Behnke
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Presenter Disclosures

Kirk Behnke, M.Ed., ATP

Education & Technology Specialist,
Behnke Consulting, LLC.
kirkatp@outlook.com
@kbehnke

Kelly Fonner, M.S.

Educational & Assistive Technology Consultant
ksfonner@gmail.com
@kellyfonner
www.kellyfonner.com

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Feature Match: What is it? Session Agenda

- Overview of Feature Match
- Why we conduct feature matching
- How we conduct feature matching
- Resources on feature matching

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Feature Matching

The formal & informal process in which the attributes of Assistive Technology that are needed & desired are determined.

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Support Effective Decision-making

- Solicit wide-spread participation in the design of environmentally-friendly, systematic processes
- Ensure that all know about and use the processes
- Provide time for collaboration
- Include students and parents
- Expect participation
- Reward participation

Need for Guidelines

Studies point to the need for:

- A ***systematic way*** of planning, developing, and delivering AT devices and services
- ***Consistent, clearly understood*** descriptions of quality AT services

Assistive Technology in Federal Statute

- Individuals with Disabilities Education Act (IDEA)
- Section 504 of the Rehabilitation Act
- Americans with Disabilities Act (ADA)
- Assistive Technology Act (AT Act)
- Section 508 of the Rehabilitation Act

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Assistive Technology Device Definition
(First included in IDEA 1990)

- AT DEVICE…

  means **any item**, piece of equipment, or product system… that is used to increase, maintain, or improve the functional capabilities of a child with a disability.

- The term does not include a medical device that is surgically implanted, or the replacement of such device.

Assistive Technology Service Definition (First included in IDEA 1990)

- AT SERVICE...

  means any service that **directly assists a person with a disability** in the selection, acquisition, or use of an assistive technology device.

Legal requirements tell us WHAT we need to do,

but not HOW!

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Guiding Principles for Assistive Technology

Important big Ideas to keep in mind

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Guiding Principles for Assistive Technology

- ***Enhancing capabilities*** and ***lowering barriers*** to achievement
- Increase ***participation and progression*** in meaningful activities of life
- Include a ***broad range*** of possible devices and services
- ***Related to function***, rather than to specific disability categories or sources of equipment
- The **least complex solution** that will remove barriers to achievement should be a first consideration

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Guiding Principles for Assistive Technology

- ***AT enhances instruction,*** does not replace it
- AT is needed to participate in and benefit from ***other initiatives and activities***
- Assessment and intervention form a ***continuous, dynamic process***
- ***Systematic problem analysis and solving*** are essential
- ***Collabortive team process*** is required

The MOST IMPORTANT Team Membership Issue

Team membership is **flexible** and team members are selected **based on the specific needs of the student with disabilities**

Big Ideas about Teams

- The student is always the center of the team
- Families are critical members of the team
- Team members bring different gifts - *knowledge, skill, observations, ideas, suggestions*
- Multiple perspectives are vital
- Focus is on the common interest in individual achievement and aligning thoughts on how to best foster it

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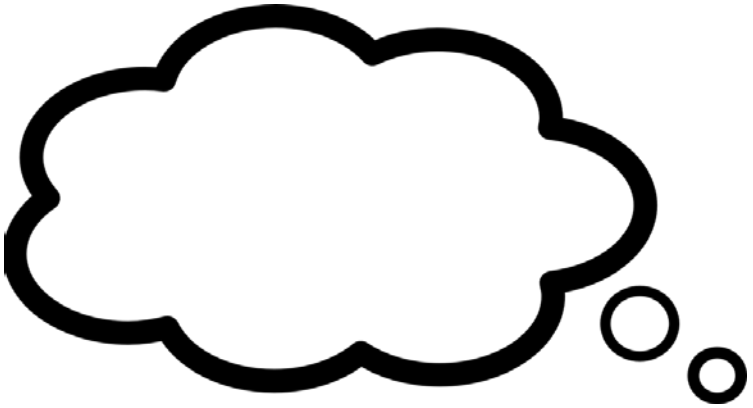
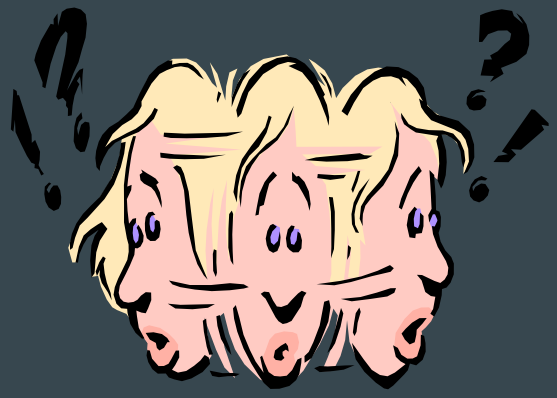
Decision Making



How are assistive technology decisions made in YOUR customary environment?

___

AT Decision-Making Techniqu



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Support for your Services with the QIAT Areas

- Consideration
- Assessment
- AT in the IEP
- Implementation
- Evaluation of Effectiveness
- Transition
- Administrative Support
- Professional Development

Assessment of AT Needs – page 1

Quality Indicators for Assistive Technology Services

Quality Indicator	Variations UNACCEPTABLE → PROMISING PRACTICES				
1. Procedures for all aspects of AT assessment are clearly defined and consistently applied.	**1** No procedures are defined.	**2** Some assessment procedures are defined, but not generally used.	**3** Procedures are defined and used only by specialized personnel.	**4** Procedures are clearly defined and generally used in both special and general education.	**5** Clearly defined procedures are used by everyone involved in the assessment process.
2. AT assessments are conducted by a team with the collective knowledge and skills needed to determine possible AT solutions that address the needs and abilities of the student, demands of the customary environments, educational goals, and related activities.	**1** A designated individual with no prior knowledge of the student's needs or technology conducts assessments.	**2** A designated person or group of individuals who have knowledge of technology, but not of the student's needs, environments, or tasks conducts assessments.	**3** A designated team with knowledge of AT conducts assessments with limited input from individuals who have knowledge of the student's needs, environments, and tasks.	**4** A team whose members have direct knowledge of the student's needs, environments, tasks, and knowledge of AT generally conducts assessments.	**5** Flexible teams formed on the basis of knowledge of of the individual student's needs, environments, tasks, and expertise in AT consistently conduct assessments.
3. All AT assessments include a functional assessment in the student's customary environments, such as the classroom, lunchroom, playground, home, community setting, or work place.	**1** No component of the AT assessment is conducted in any of the student's customary environments.	**2** No component of the AT assessment is conducted in any of the customary environments, however, data about the customary environments are sought.	**3** Functional components of AT assessments are sometimes conducted in the student's customary environments.	**4** Functional components of AT assessments are generally conducted in the student's customary environments.	**5** Functional components of AT assessments are consistently conducted in the student's customary environments.

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Assessment of AT Needs – page 2

Quality Indicators for Assistive Technology Services

4. AT assessments, including needed trials, are completed within reasonable timelines.	**1** AT assessments are not completed within agency timelines.	**2** AT assessments are frequently out of compliance with timelines.	**3** AT assessments are completed within a reasonable timeline and may or may not include initial trials.	**4** AT assessments are completed within a reasonable timeline and include at least initial trials.	**5** AT assessments are conducted in a timely manner and include a plan for ongoing assessment and trials in customary environments.
. Recommendations from AT assessments are based on data about the student, environments and tasks.	**1** Recommendations are not data based.	**2** Recommendations are based on incomplete data from limited sources.	**3** Recommendations are sometimes based on data about student performance on typical tasks in customary environments.	**4** Recommendations are generally based on data about student performance on typical tasks in customary environments.	**5** Recommendations are consistently based on data about student performance on typical tasks in customary environments.
6. The assessment provides the IEP team with clearly documented recommendations that guide decisions about the selection, acquisition, and use of AT devices and services.	**1** Recommendations are not documented.	**2** Documented recommendations include only devices. Recommendations about services are not documented.	**3** Documented recommendations may or may not include sufficient information about devices and services to guide decision-making and program development.	**4** Documented recommendations generally include sufficient information about devices and services to guide decision-making and program development.	**5** Documented recommendations consistently include sufficient information about devices and services to guide decision-making and program development.
7. AT needs are reassessed any time changes in the student, the environments and/or the tasks result in the student's needs not being met with current devices and/or services.	**1** AT needs are not reassessed.	**2** AT needs are only reassessed when requested. Reassessment is done formally and no ongoing AT assessment takes place.	**3** AT needs are reassessed on an annual basis or upon request. Reassessment may include some ongoing and formal assessment strategies.	**4** AT use is frequently monitored. AT needs are generally reassessed if current tools and strategies are ineffective. Reassessment generally includes ongoing assessment strategies and includes formal assessment, if indicated.	**5** AT use is frequently monitored. AT needs are generally reassessed if current tools and strategies are ineffective. Reassessment generally includes ongoing assessment strategies and includes formal assessment, if indicated.

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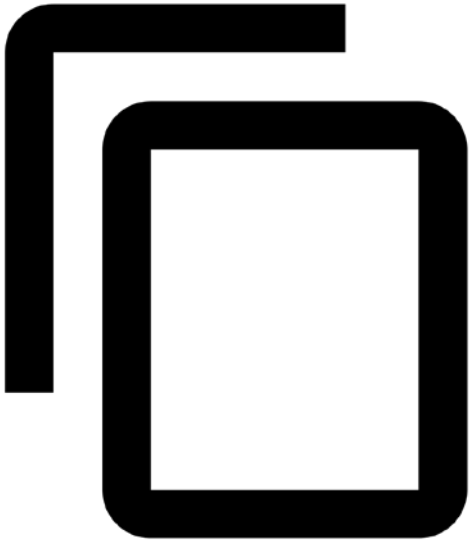
AT Decision Making Frameworks



SETT: Student Environment Task Tools
HAAT: Human Activity AT

What Others Have Said...

- “We don’t KNOW what to do!”
- “We prioritize.. most visible needs first”
- “Johnny?... he’s too low”
- “Don’t they already know how to do this?”
- “We just checked yes or no on the form”
- “Sally?…she just needs to try harder”
- “Not before the fifth grade”
- “We don’t have enough money for that”
- “Jeff?.. He’s going to high school! Get the kid a laptop!”

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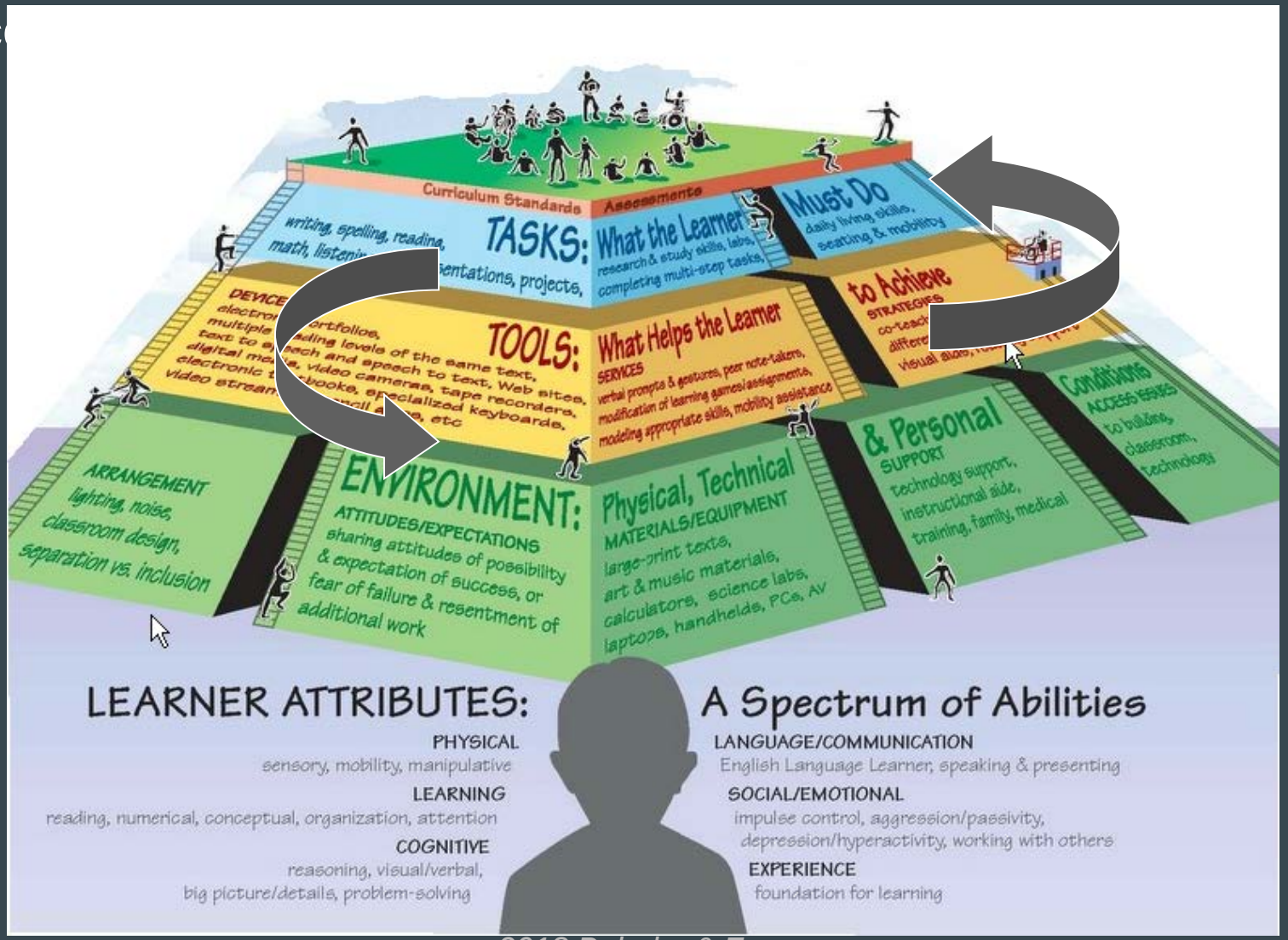
Decision-Making Sequence (www.joyzabala.com)

Develop shared understanding of the Student, Environments, and expected Tasks ***BEFORE*** Tools are c



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The SETT Framework

http://joyzabala.com

Student, Environment, Tasks, & Tools

The Student

- The person who is the central focus of the educational process and for whom everyone involved in any part of the educational program is an advocate

The Environments

- The customary environments in which the student is (or can be) expected to learn and grow

The Tasks

- The specific things that the student needs to be able to do or learn to do to reach expectations and make educational progress

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The SETT Framework

The Tools

Everything that is needed by the student and others for the student accomplish the tasks in the places where they need to be done so that educational progress is achieved

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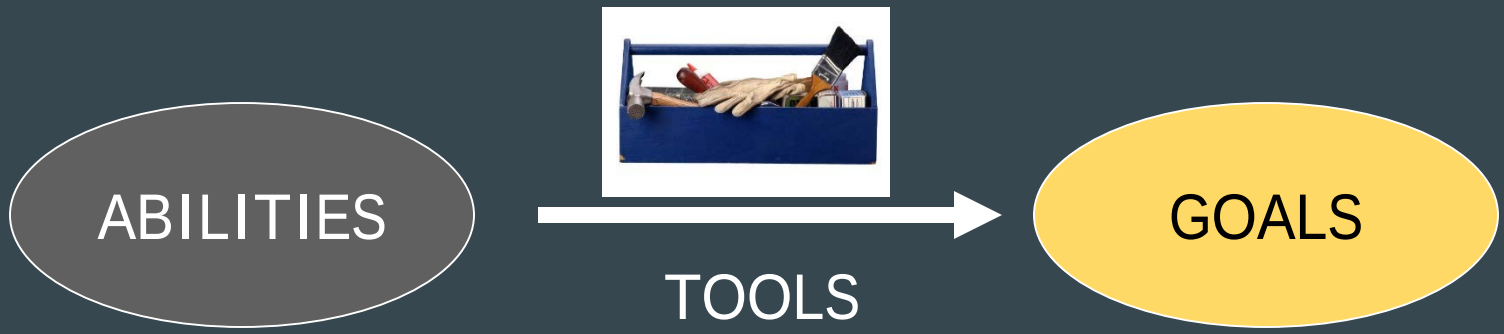
Tools

- Whatever is needed by the **student** and **others** for the student to do the tasks in the environments in order to meet expectations



Sample SETT - David

THE SETT FRAMEWORK - PART I
Collaborative Consideration of Student Need for Assistive Technology Devices and Services

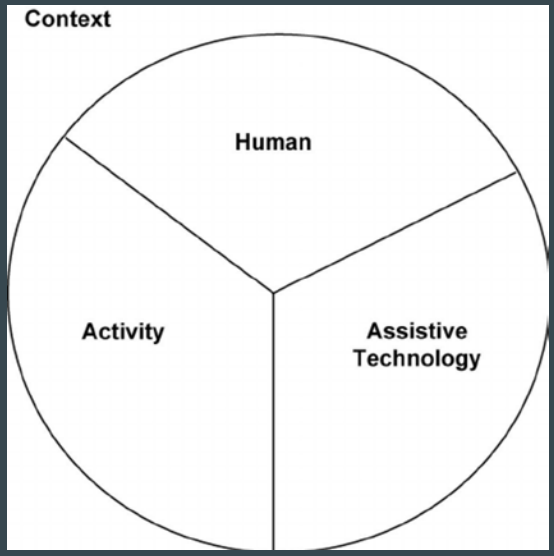
Student: S Date: 11/3/99 Perspective: AT Consultant from CESA1 taking notes during team meeting (Spec Ed Teacher, Mother, Math teacher, Physical Therapist, Occupational Therapist, Pupil Services Administrator, Student Counselor)

EXAMINING CURRENT CONDITIONS TO CONSIDER EDUCATIONAL NEED

STUDENT	ENVIRONMENT	TASKS	ACCOMMODATION	TOOLS (now)	TOOLS(to try)
13 years old Strengths: • Reading • Quality Work • Verbal Expression • Ideas • Concepts • Language • Speech • Recite Poems • Paper • Gaining maturity Weaknesses: • Self-Esteem • Mild seizure activity • Distraction • Low Frustration Tolerance • Transferability • Hand-writing w/pencil (cramped) • not equal hand strength to type (left hand uses; not efficient alone; right hand-fisted for stabilizing)	Writing *(concern of 3)* • Final typed manuscript form • Short Answer • Note taking Projects • Poster Spelling Test • Time Allowance Math • Coordinates • Calculations *(concern of 1)* Time • Outline • Web Next Year • Graphing • 5 academic teacher	Breakdowns: • Short Answers • Taking Notes • Cutting (use of scissors) • Graphing (using ruler) *(concern of 1)* • Test taking • Organiza-tion of notes • Math problems	Dictates- thinking & saying vs. physical energy Notetaking: • Carbon paper from friends (teacher sometimes has to remind him to ask if student doesn't automatically helps) • Tape Recorder (tried but with trouble handling & dropping) Cutting • Mom cuts at home or he tries and he is unsatisfied with the quality of his work Test taking • Time allowances Extra Supplies in each class: • Textbooks both home & school • Computer access (at teacher's desk in each class) • Powerchair (materials location-behind – they've tried side options)	Voice Recognition – tired both discrete & continuous with limited success according to mom (lose train of thought, poor recognition, saw no difference between the two) ?how are they handling corrections? Computer Use – long time use; limited typing ability; uses stickey key at home but not at school; one handed typing (no interest); Mousing – uses mouse at home and school for editing Graphing – uses modified ruler but teacher doesn't find this satisfactory Math – uses larger calculator	Voice Recognition • Naturally Speaking • If not successful try discrete Keyboarding • Portable Tools • Stickey Key OnScreen Kybd • Probably not headmouse • Mouse • Trackball • Speed Cutting • Use small paper cutter Math • Use larger paper • Non-slip surface • Graphic calculator • Use handle ruler Computer access in each class

The HAAT Model

(Cook & Hussey, 1995)



The Human Performance Model (Bailey, 1996) outlines that people performing in systems have in common that they are each somebody (a person), doing something (an activity), at someplace (within a context).

The HAAT Model is an extension of HPM where it has four components - the human, the activity, the assistive technology, and the context in which these three integrated factors exist.

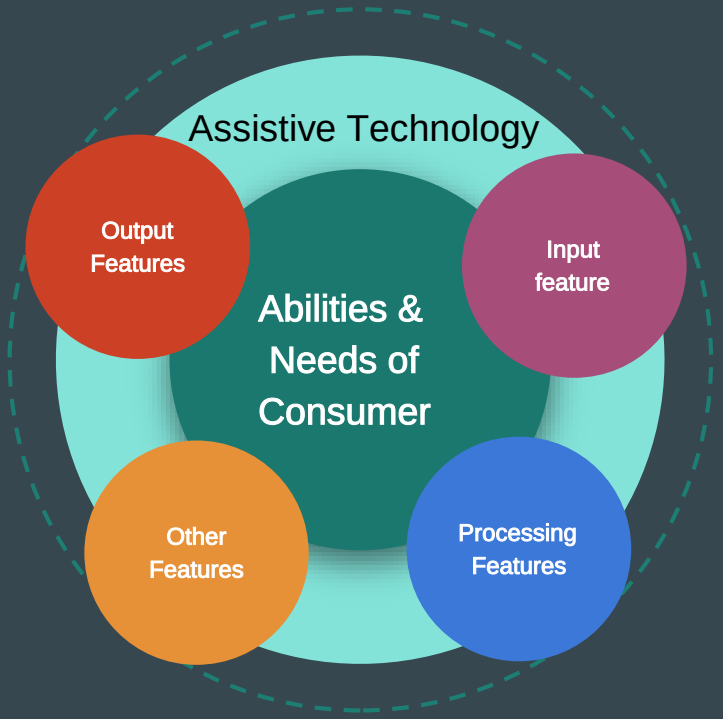
The HAAT Model

(Cook & Hussey, 1995)

- 4 Components of Context
  - Physical, social, cultural, institutional
- Human Component
  - Physical, cognitive, emotional, novice or expert
- Activity Component
  - Self care, productivity, leisure
- Assistive Technology
  - Human tech interface(hti) activity output, processor, environmental interface

Feature Matching

- List the Features needed by the consumer
- Review technology options for:
  - Input (Environmental Interface)
  - Processing
  - Output (HTI Activity Output)
  - Other properties



Human to Technology - Feature Match

Person

- ❑ **Human/Student**
  - ❑ **Abilities**
  - ❑ **Needs**
- ❑ **Context/Environment**
  - ❑ **Expectations**
  - ❑ **Supports**
- ❑ **Activities/Tasks**
  - ❑ **Functions**
  - ❑ **Priorities**

Assistive Technology

- ❑ **Input**
  - ❑ What are the access options?
- ❑ **Processing**
  - ❑ Readability?
  - ❑ What layout?
  - ❑ Speed/rate enhancements?
- ❑ **Output**
  - ❑ Text, images or tactual info?
  - ❑ Auditory options?
- ❑ **Other properties**
  - ❑ OS? Cost?
  - ❑ Ease of use?
  - ❑ Support?
  - ❑ Upgrade policy?

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Feature Match Input

Input feature

Assistive Technology Feature Charts

Input: How the system in activated. Determined by the motor, sensory, and cognitive abilities and needs of the user.

Direct Selection Input Method	The Human Interface	The Technology Feature
Keyboard Assisted Keyboard	Hand(s)/Digit(s) Foot/Toe Headstick/Chinstick Mouthstick	Standard Keyboard Adjustable Keyboard Ergonomic Keyboard Rearranged Keys
Alternate Keyboard	Hand(s)/Digit(s)/Fist Foot/Toe Headstick/Chinstick Mouthstick Tongue	Enlarged Keyboard Miniature Keyboard Condensed Keyboard Chordic Keyboard
OnScreen Keyboard	Mouse or mouse emulator Activated via Hand/Foot/Head	Keyboard on Tablet Keyboard on Monitor Display
Pen Controlled Gesture	Handwriting Finger Hand (body) held pointer	Handwriting Recognition Gesture SWIPE on Keyboard
Mouse Emulation	Hand/Digit/Fist/Elbow Foot Head/Chin	Mouse/Trackball Tracpad/Tablet Mouse Stick Head Movement Sensitive Unit
Light Pointing	Light source mounted on head or other part of the body	Light Panel Photosensitive Cell
Voice Recognition	Speech Sound Noise (ie. Clapping)	Discrete Speech Continuous Speech Sound Activated Cell
Eye Gaze	Eye movements Eye pointing	Etran Eye Gaze System
Brain Computer Interface	Brain wave activity	Mind band/Helmet Sensitive connectors
Switch	Single Switch Activation via pressure, pneumatic, motion, physioelectric, photosensitivity, sound, proximity	Connected to: Battery Device Electronic Appliance Tablet/Computer Interface Box Communication System Morse Code

Indirect Selection				
Switch Types	**Switch Activation**	**Scanning Displays**	**Types of Scanning**	**Ways to Operate the Scan**
Single	Pressure	Light Diodes	Linear	1 Switch Step
Dual	Pneumatic (air)	Light Panel	Circular	1 Switch Sequence
Multiple	Motion	OnScreen Display	Row/Column	2 Switch Step
Directional	Physioelectric	Dynamic	Column/Row	Automatic
Proportional	Photosensitive		Group/Block	Continuous
	Sound		Directed	Inverse
	Proximity		Auditory	

Feature Match Processing

Processing Features

Assistive Technology Feature Charts

Processing: The organization of the system. Includes the layout, software type, language representation, and rate enhancement techniques. Determined by the cognitive, receptive and expressive abilities and needs of the user.

Keyboard Layouts	Full Keyboard Displays	Standard	QWERTY, ABC, AEIOU
		Ergonomic	CHUBON, DVORAK, Center Space
	Half Keyboard Displays		Half Qwerty Chordic
Cognitive Supports	Grammar	Grammar Checker, Active Grammar Check Word Completion Word Prediction, Language-based Word Prediction Language Translation	
	Spelling	Spell Checker Spelling-base Word Prediction Active Spelling Cue Picture Dictionary	
	Menu	Auditory menu Picture menu	
Language Supports		**The strategy of how the target item is retrieved**	**Word form how the target item is stored**
	Single Key Activated (one selection)	Tape Recorded Digital Recording Text to Speech	Single Word Partial Message/Phrase Whole Sentence/Message
	Multiple Keys Activated (multiple selections)		
	Encoded Strategies (single display set = multiple messages)	Orthography (alphabet layout)	Spelling
		Abbreviation Expansion Logical Letter Codes	Single Word Partial Message/Phrase Whole Sentence/Message
		Color Coding Number Coding	Single Word Partial Message/Phrase Whole Sentence/Message
		Semantic Compaction Language Branching	Single Word Partial Message/Phrase Whole Sentence/Message
		KeyLinking	Single Word Partial Message/Phrase Whole Sentence/Message
		Morse Code	Single Word Partial Message/Phrase Whole Sentence/Message
	Branching Strategies (multiple display sets = multiple messages)	Levels & Locations	Single Word Partial Message/Phrase Whole Sentence/Message
		Dynamic Displays	Single Word Partial Message/Phrase Whole Sentence/Message
		Auditory Scans	Single Word Partial Message/Phrase Whole Sentence/Message

Rate Enhancement Strategies	**Strategy Type**	**Processing strategy used with…**
	Word Prediction	Orthography
	Symbol/Icon Prediction	Semantic Compaction, Key Linking, Dynamic Displays
	Pop Up/Sort Dialog Windows	Dynamic Displays
	Frequency Averaging	Encoded and Branching strategies

Feature Match Output

Output Features

Assistive Technology Feature Charts

Output: The result of activating the system. Determined by the sensory, cognitive, receptive and expressive abilities, needs and expectations of the user.

Type of Output	Resulting Output Needed/Expected	The Technology Feature	
Auditory	Key Activation Feedback	Key Beep Key Echo	
	Synthesized Speech (Text-to-Speech)	Electronic Speech Synthesis Human Recorded/Rendered Synthesis	
	Recorded Speech Recorded Sound	Digitized Speech Digitized Sound	
Visual	**Contrast:** Color Monochrome Reverse Polarity Backlighting/Side-lighting	**Display Type:** Tablet Desktop Monitor Portable Display Built-in Display	
	Size: Enlarged Display Enlarged Picture Enlarged Font	CCTV/camera Large Screen Monitor Screen Enlarger Text Enlargement	
	Hard Copy: Regular Print Enlarged Print Color Print	**Printer Type:** Desktop Portable Built-In	**Print Methods:** InkJet Laser Thermal
Tactual	Tactual Alert (shaking)	Vibration	
	Brailled Text	Text to Braille Conversion Braille Embosser	
	Refreshable Braille	Text to Braille Conversion Single Character Display Single Line (40/80) Display	
	Tactual Map Tactual Graphic	Thermoform Raised Graphic Paper	
Interface Capabilities	**Connect to:** Internet/WWW Electronic Mail Server Lists Video Chat	**Type of Connection:** Wireless Ethernet USB Type____ Mini Other _____	
	Electronic Imaging: Scanner Camera/Video	Wireless USB Type ____ Other _____	
	Computer Emulator	ASCII	

Feature Match Other - Compan

Other Features

Assistive Technology Feature Charts

General Features: Physical and other properties that impact system selection.

Portability	
	Weight
	Size, Dimensions
	Handle/Carry Strap/Belt
	Mounting Options
	Carry Case
	Battery Life

Company Policy	
	Initial Setup and Training
	Loaner availability
	Service/Repair Record
	Rent to Purchase Program
	Financing Assistance
	Local Representative
	Site Licensing

Other	
	Cost
	Ease of Use
	Transparency
	Memory/Storage Capacity
	Customizability
	Upgradeable/Expandable
	Back-up Capability
	Aesthetics
	Durability

SETT page 2

THE SETT FRAMEWORK - PART II - A

Describing an Assistive Technology Tool System to Address Identified Student Needs
Brainstorming Possible Tools that Match the Description

STUDENT: _____ **AREA OF ESABLISHED NEED (See SETT:Part I):** _____

Enter one description or important function in each column **Enter one possible tool in each row**									

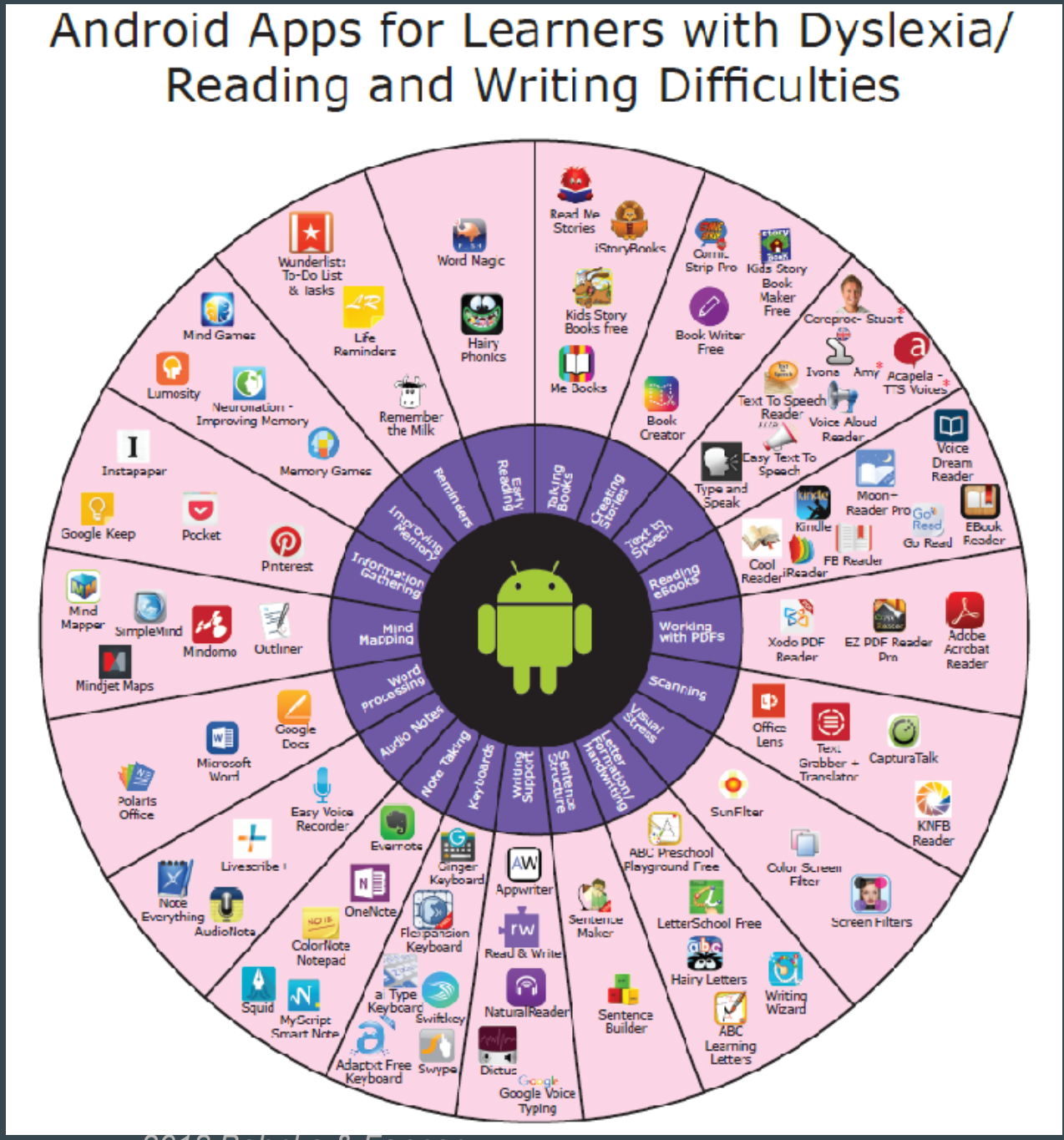
Where does this Feature information come from

Feature Match Example

Call Scotland

University of Edinburgh Assistive Technology Project

http://www.callscotland.org.uk/downloads/posters-and-leaflets.



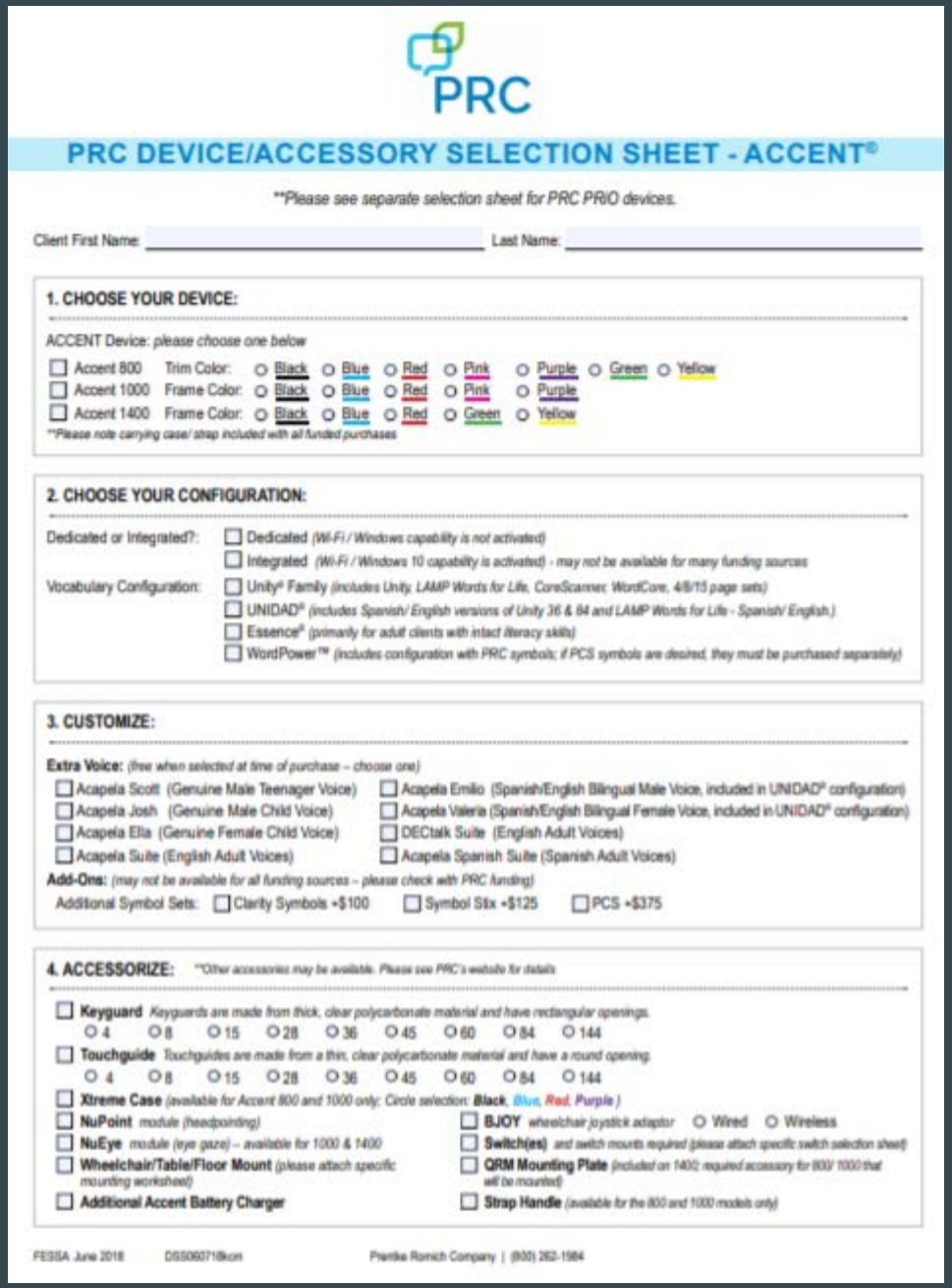
Feature Match Company Example

http://www.aacfunding.com

To assist with funding process, templates and submission to insurance.

http://www.prentrom.com

Product features, online modules, just in time workshops, and videos.



PRC

PRC DEVICE/ACCESSORY SELECTION SHEET - ACCENT®

***Please see separate selection sheet for PRC PRIO devices.*

Client First Name: _____ Last Name: _____

1. CHOOSE YOUR DEVICE:

ACCENT Device: *please choose one below*

- ☐ Accent 800 Trim Color: ○ Black ○ Blue ○ Red ○ Pink ○ Purple ○ Green ○ Yellow
- ☐ Accent 1000 Frame Color: ○ Black ○ Blue ○ Red ○ Pink ○ Purple
- ☐ Accent 1400 Frame Color: ○ Black ○ Blue ○ Red ○ Green ○ Yellow

***Please note carrying case/ strap included with all funded purchases*

2. CHOOSE YOUR CONFIGURATION:

Dedicated or Integrated?:
- ☐ Dedicated *(Wi-Fi / Windows capability is not activated)*
- ☐ Integrated *(Wi-Fi / Windows 10 capability is activated) - may not be available for many funding sources*

Vocabulary Configuration:
- ☐ Unity® Family *(includes Unity, LAMP Words for Life, CoreScanner, WordCore, 4/5/15 page sets)*
- ☐ UNIDAD® *(includes Spanish/ English versions of Unity 36 & 84 and LAMP Words for Life - Spanish/ English.)*
- ☐ Essence® *(primarily for adult clients with intact literacy skills)*
- ☐ WordPower™ *(includes configuration with PRC symbols; if PCS symbols are desired, they must be purchased separately)*

3. CUSTOMIZE:

Extra Voice: *(free when selected at time of purchase – choose one)*

- ☐ Acapela Scott (Genuine Male Teenager Voice)
- ☐ Acapela Josh (Genuine Male Child Voice)
- ☐ Acapela Ella (Genuine Female Child Voice)
- ☐ Acapela Suite (English Adult Voices)
- ☐ Acapela Emilio (Spanish/English Bilingual Male Voice, included in UNIDAD® configuration)
- ☐ Acapela Valeria (Spanish/English Bilingual Female Voice, included in UNIDAD® configuration)
- ☐ DECtalk Suite (English Adult Voices)
- ☐ Acapela Spanish Suite (Spanish Adult Voices)

Add-Ons: *(may not be available for all funding sources – please check with PRC funding)*

Additional Symbol Sets: ☐ Clarity Symbols +$100 ☐ Symbol Stix +$125 ☐ PCS +$375

4. ACCESSORIZE: ***Other accessories may be available. Please see PRC's website for details*

- ☐ **Keyguard** *Keyguards are made from thick, clear polycarbonate material and have rectangular openings.*
  ○ 4 ○ 8 ○ 15 ○ 28 ○ 36 ○ 45 ○ 60 ○ 84 ○ 144
- ☐ **Touchguide** *Touchguides are made from a thin, clear polycarbonate material and have a round opening.*
  ○ 4 ○ 8 ○ 15 ○ 28 ○ 36 ○ 45 ○ 60 ○ 84 ○ 144
- ☐ **Xtreme Case** *(available for Accent 800 and 1000 only; Circle selection: Black, Blue, Red, Purple)*
- ☐ **NuPoint** *module (headpointing)*
- ☐ **NuEye** *module (eye gaze) – available for 1000 & 1400*
- ☐ **Wheelchair/Table/Floor Mount** *(please attach specific mounting worksheet)*
- ☐ **Additional Accent Battery Charger**
- ☐ **BJOY** *wheelchair joystick adaptor* ○ Wired ○ Wireless
- ☐ **Switch(es)** *and switch mounts required (please attach specific switch selection sheet)*
- ☐ **QRM Mounting Plate** *(included on 1400; required accessory for 800/ 1000 that will be mounted)*
- ☐ **Strap Handle** *(available for the 800 and 1000 models only)*

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Moving Forward: ***The Tools***

- Device(s) - what and why?
- Services - what, why and for whom?,
- Training - Content and for whom?
- Strategies and Accommodations?
- Other needs or considerations?

Make recommendations and justify them with data.

SETT page 2

THE SETT FRAMEWORK - PART II - A

Describing an Assistive Technology Tool System to Address Identified Student Needs
Brainstorming Possible Tools that Match the Description

STUDENT: _____ **AREA OF ESABLISHED NEED (See SETT:Part I):** _____

Enter one description or important function in each column **Enter one possible tool in each row**									

Planning for Trials

Where to get Trials

- Download trials for Apps & Extensions
- Utilize Rental Programs- work through insurance companies to pay for trial evaluations
- Borrow from Loaner Programs
- Create Mock-ups from what you have
  - Tablet Systems with Interfaces
  - AAC Products with Multiple Features

Planning for Trials

Data Collection During Trials

- SETT Forms (www.joyzabala.com)
- Evaluation of Effectiveness (www.qiat.org)
- Language Sampling & Data Logging (aacinstitute.org/language-sample-collection-in-aac)

SETT Forms - Part II-B (www.joyzabala.com)

THE SETT FRAMEWORK - PART II - B

Establishing Availability and Service Needs for Promising Tools

SHORT LIST OF TOOLS	TOOL AVAILABILITY			SERVICES REQUIRED FOR EFFECTIVE USE		
JUSTIFY CHOICES WITH SETT DATA AND FEATURE MATCH	A	S	TBA	STUDENT	STAFF	FAMILY

KEY: A= Available to ALL students served by this system
S= Available through Special Ed. or other special program for which the student qualifies
TBA = Tools which need to be acquired if consideration or assessment data establishes student need

Feature Match in your setting

Stages of Implementation*

- Exploration
- Installation
- Initial Implementation
- Full Implementation
- Sustainability

*Wallace, F., Blasé, K., Fixsen, D., Naoom, S., (2008). Implementing the Findings of Research: Bridging the Gap Between Knowledge and Practice

QIAT Online Supports

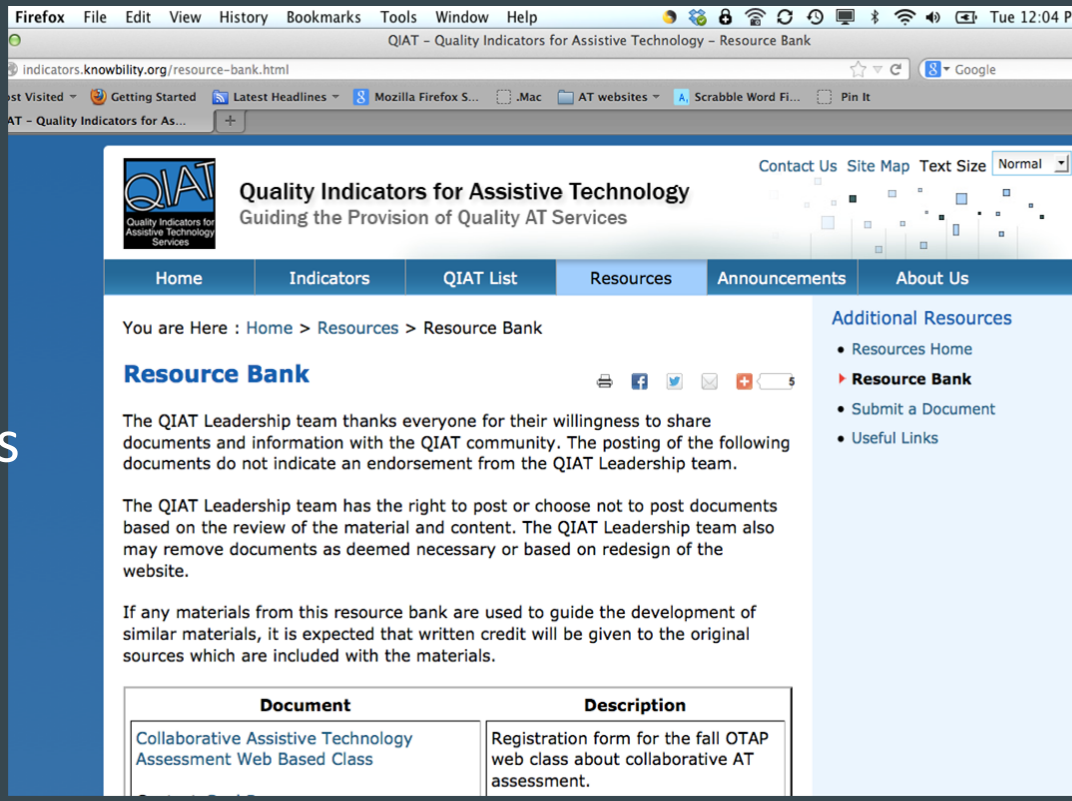
http://www.qiat.org

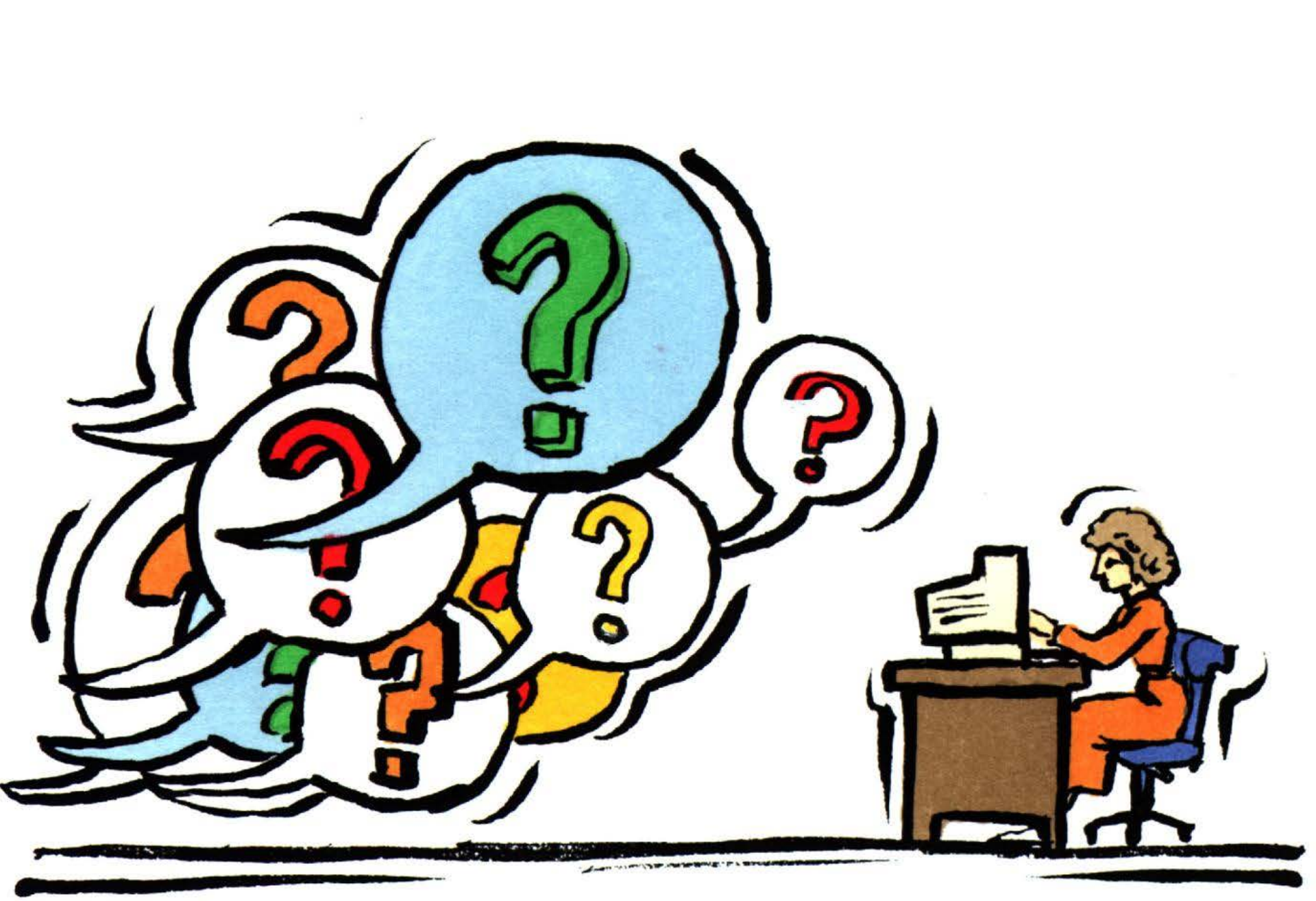
QIAT Website

- guiding documents
- handouts and feedback

QIAT List

- collegial conversations
- new information & updates





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Work Together to for Success!

- Use a team approach
- Needs first, then tools
- Focus on barrier removal
- Assistive technology devices AND services
- Educational, ubiquitous, embedded and assistive technology tools
- Determine roles and responsibilities
- Evaluate Effectiveness

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Resources

- Assistive Technologies-E-Book: Principles and Practice

  AM Cook, JM Polgar - 2014 - https://books.google.com
- Call Scotland http://www.callscotland.org.uk
- CTG Resource Directory https://www.closingthegap.com/resource-directory/
- Georgia project for AT http://www.gpat.org
- Quality Indicators in Assistive Technology (QIAT) http://www.qiat.org
- SETT Framework http://joyzabala.com
- Texas AT Network http://www.texasat.net
- The AAC Institute http://www.aacinstitute.org
- The AT Center at OCALI https://ataem.org/
- Wisconsin AT Initiative http://wati.org

Kirk Behnke
kirkatp@outlook.com
@kbehnke

Kelly Fonner
ksfonner@gmail.com
@kellyfonner

Assistive Technology Feature Charts

Input: How the system in activated. Determined by the motor, sensory, and cognitive abilities and needs of the user.

Direct Selection Input Method	The Human Interface	The Technology Feature
Keyboard Assisted Keyboard	Hand(s)/Digit(s) Foot/Toe Headstick/Chinstick Mouthstick	Standard Keyboard Adjustable Keyboard Ergonomic Keyboard Rearranged Keys
Alternate Keyboard	Hand(s)/Digit(s)/Fist Foot/Toe Headstick/Chinstick Mouthstick Tongue	Enlarged Keyboard Miniature Keyboard Condensed Keyboard Chordic Keyboard
OnScreen Keyboard	Mouse or mouse emulator Activated via Hand/Foot/Head	Keyboard on Tablet Keyboard on Monitor Display
Pen Controlled Gesture	Handwriting Finger Hand (body) held pointer	Handwriting Recognition Gesture SWIPE on Keyboard
Mouse Emulation	Hand/Digit/Fist/Elbow Foot Head/Chin	Mouse/Trackball Tracpad/Tablet Mouse Stick Head Movement Sensitive Unit
Light Pointing	Light source mounted on head or other part of the body	Light Panel Photosensitive Cell
Voice Recognition	Speech Sound Noise (ie. Clapping)	Discrete Speech Continuous Speech Sound Activated Cell
Eye Gaze	Eye movements Eye pointing	Etran Eye Gaze System
Brain Computer Interface	Brain wave activity	Mind band/Helmet Sensitive connectors
Switch	Single Switch Activation via pressure, pneumatic, motion, physioelectric, photosensitivity, sound, proximity	Connected to: Battery Device Electronic Appliance Tablet/Computer Interface Box Communication System Morse Code

Indirect Selection				
Switch Types	**Switch Activation**	**Scanning Displays**	**Types of Scanning**	**Ways to Operate the Scan**
Single	Pressure	Light Diodes	Linear	1 Switch Step
Dual	Pneumatic (air)	Light Panel	Circular	1 Switch Sequence
Multiple	Motion	OnScreen Display	Row/Column	2 Switch Step
Directional	Physioelectric	Dynamic	Column/Row	Automatic
Proportional	Photosensitive		Group/Block	Continuous
	Sound		Directed	Inverse
	Proximity		Auditory	

Assistive Technology Feature Charts

Processing: The organization of the system. Includes the layout, software type, language representation, and rate enhancement techniques. Determined by the cognitive, receptive and expressive abilities and needs of the user.

Keyboard Layouts	Full Keyboard Displays	Standard	QWERTY, ABC, AEIOU
		Ergonomic	CHUBON, DVORAK, Center Space
	Half Keyboard Displays		Half Qwerty Chordic
Cognitive Supports	Grammar	Grammar Checker, Active Grammar Check Word Completion Word Prediction, Language-based Word Prediction Language Translation	
	Spelling	Spell Checker Spelling-base Word Prediction Active Spelling Cue Picture Dictionary	
	Menu	Auditory menu Picture menu	
Language Supports		**The strategy of how the target item is retrieved**	**Word form how the target item is stored**
	Single Key Activated (one selection)	Tape Recorded Digital Recording Text to Speech	Single Word Partial Message/Phrase Whole Sentence/Message
	Multiple Keys Activated (multiple selections)		
	Encoded Strategies (single display set = multiple messages)	Orthography (alphabet layout)	Spelling
		Abbreviation Expansion Logical Letter Codes	Single Word Partial Message/Phrase Whole Sentence/Message
		Color Coding Number Coding	Single Word Partial Message/Phrase Whole Sentence/Message
		Semantic Compaction Language Branching	Single Word Partial Message/Phrase Whole Sentence/Message
		KeyLinking	Single Word Partial Message/Phrase Whole Sentence/Message
		Morse Code	Single Word Partial Message/Phrase Whole Sentence/Message
	Branching Strategies (multiple display sets = multiple messages)	Levels & Locations	Single Word Partial Message/Phrase Whole Sentence/Message
		Dynamic Displays	Single Word Partial Message/Phrase Whole Sentence/Message
		Auditory Scans	Single Word Partial Message/Phrase Whole Sentence/Message

Rate Enhancement Strategies	**Strategy Type**	**Processing strategy used with…**
	Word Prediction	Orthography
	Symbol/Icon Prediction	Semantic Compaction, Key Linking, Dynamic Displays
	Pop Up/Sort Dialog Windows	Dynamic Displays
	Frequency Averaging	Encoded and Branching strategies

Assistive Technology Feature Charts

Output: The result of activating the system. Determined by the sensory, cognitive, receptive and expressive abilities, needs and expectations of the user.

Type of Output	Resulting Output Needed/Expected	The Technology Feature	
Auditory	Key Activation Feedback	Key Beep Key Echo	
	Synthesized Speech (Text-to-Speech)	Electronic Speech Synthesis Human Recorded/Rendered Synthesis	
	Recorded Speech Recorded Sound	Digitized Speech Digitized Sound	
Visual	**Contrast:** Color Monochrome Reverse Polarity Backlighting/Side-lighting	**Display Type:** Tablet Desktop Monitor Portable Display Built-in Display	
	Size: Enlarged Display Enlarged Picture Enlarged Font	CCTV/camera Large Screen Monitor Screen Enlarger Text Enlargement	
	Hard Copy: Regular Print Enlarged Print Color Print	**Printer Type:** Desktop Portable Built-In	**Print Methods:** InkJet Laser Thermal
Tactual	Tactual Alert (shaking)	Vibration	
	Brailled Text	Text to Braille Conversion Braille Embosser	
	Refreshable Braille	Text to Braille Conversion Single Character Display Single Line (40/80) Display	
	Tactual Map Tactual Graphic	Thermoform Raised Graphic Paper	
Interface Capabilities	**Connect to:** Internet/WWW Electronic Mail Server Lists Video Chat	**Type of Connection:** Wireless Ethernet USB Type____ Mini Other _____	
	Electronic Imaging: Scanner Camera/Video	Wireless USB Type ____ Other _____	
	Computer Emulator	ASCII	

Assistive Technology Feature Charts

General Features: Physical and other properties that impact system selection.

Portability	
	Weight
	Size, Dimensions
	Handle/Carry Strap/Belt
	Mounting Options
	Carry Case
	Battery Life

Company Policy	
	Initial Setup and Training
	Loaner availability
	Service/Repair Record
	Rent to Purchase Program
	Financing Assistance
	Local Representative
	Site Licensing

Other	
	Cost
	Ease of Use
	Transparency
	Memory/Storage Capacity
	Customizability
	Upgradeable/Expandable
	Back-up Capability
	Aesthetics
	Durability