A Thoughtful Assistive Technology Implementation

Presenting July 9th, 2018 at: Evidence for Success – Combined Disability Conference

Christine Flanigan, Assistive Technology Specialist
Glendale Union High School District

&

Alycia Dotseth-Hall, Specialty Certified School Systems Occupational Therapist
Glendale Union High School District
Let's learn a bit about the audience

How many of you are:
- Teachers
- Instructional Assistants
- Therapists
- DDD Case Managers
- Parents
- Other??

How many of you attended the first session?
Following, “A Thoughtful Assistive Technology Process”, this presentation will focus on the implementation step of the assistive technology process within the school setting with primary examples in the secondary setting. Attendance at the first session is not required, but would be beneficial. Participants will learn about four main factors, person, task, context, and person-task-context interaction, which can guide a thoughtful process for assistive technology implementation.
Key Learning Outcomes

1) Participants will communicate the importance of following a thoughtful implementation process.

2) Participants will be able to name the four main factors to consider during assistive technology implementation.

3) Participants will be able to communicate how the four main factors apply to implementation of a variety of technologies and student ability levels.
“Neither the law nor the regulations provided guidelines for school districts in the implementation of these requirements. This may be part of the reason that school districts still struggle to comply with the laws relating to assistive technology” (ASNAT, 2009, page 3).
Team Members:

“A basic principle in IDEA is that no one person has sufficient knowledge or expertise to make all of the decisions about the educational needs of a student with a disability”.  (Education Tech Point: A Framework for Assistive Technology, pg 8)

“The effective and efficient provision of appropriate assistive technology services requires each service provider to not only develop his/her individual knowledge base, but also to work more cooperatively as members of one or more teams”.  (Education Tech Points: A Framework for Assistive Technology, pg 15)
Team Members

- Parent and, when appropriate, the child
- Special Education Teacher
- Occupational Therapist
- Physical Therapist
- General Education Teacher
- Vision/Hearing Specialist
- Interagency Personnel
- School District Representative
- School Psychologist
- Speech Language Therapist
- AT Specialist
- Others as Needed
5 Step Process

1. Consideration
2. Assessment/Evaluation
3. Trial
4. Implementation Plan
5. Periodic Review
5 Step Process

1. Consideration
2. Assessment/Evaluation
3. Trial
4. Implementation Plan
   a. Person
   b. Task(s)
   c. Context
   d. Person-Task-Context Interaction
5. Periodic Review
Resources

- QIAT-Quality Indicators for Assistive Technology
- Education Tech Points=Coalition for Assistive Technology in Oregon
- NATRI=National Assistive Technology Research Institute
- GPAT=Georgia Project for Assistive Technology
- HIAT=High Incidence Assistive Technology (Montgomery County Public Schools, MD)
- Lexington Public Schools
- OCALI-ATIM=Assistive Technology Internet Modules
Ecology of Human Performance

- Occupational Therapy framework by Winnie Dunn and colleagues

Diagram:
- Person
- Interaction
- Context
- Task

Performance
The cognitive, social, physical, and behavioral skills of the person
For assistive technology → student and support system

- What are the training needs?
  - Short term
  - Long term
- What are the best learning methods for each person?
- What is the “buy-in” of the stakeholders?
Task

- Specific classroom activities the student will complete using the technology

  - What is the activity?
    - Bellwork
    - >3 sentence writing
    - Requesting lunch preferences
    - Reading <10 page classroom packets

  - Is the activity already accessible?
  - How will completion of the activity be acknowledged and measured?
Context

Specific aspects of where the use of the technology will take place:

- Is the Cafeteria, General Education Classroom, Resource Room, Home, etc.,:
  - Loud?
  - Internet capable?
  - Have close access to an electrical outlet?
- What are the expectations of the student in that environment?
Person-Task-Context Interaction

- The organic results of the real world situation
Case Study - Student A

Assessment/Evaluation

**Student:** Freshman taking gen ed. classes, team reported difficulties with writing legibility, formal eval completed.

**Features:** EdTech, Portable word processing, decreased start up time, robust spell check, speech-to-text

<table>
<thead>
<tr>
<th>Trial</th>
<th>iPad</th>
<th>Laptop</th>
<th>Chromebook</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ed Tech</td>
<td>X</td>
<td>X</td>
<td>X</td>
</tr>
<tr>
<td>Portable WP</td>
<td>X</td>
<td>X</td>
<td>X</td>
</tr>
<tr>
<td>Start Up Time</td>
<td>X</td>
<td></td>
<td>X</td>
</tr>
<tr>
<td>Spell Check</td>
<td>X</td>
<td>X</td>
<td>X</td>
</tr>
<tr>
<td>STT</td>
<td>X</td>
<td>X</td>
<td>X</td>
</tr>
</tbody>
</table>
Case Study - Student A

Person

- Required skilled training for using STT with class assignments
- Teacher Ed on reasoning and how to support students
- Great buy-in from English teacher
- Case manager required support for amending the IEP and understanding testing accommodations

General education freshman student

Implement: Chromebook for word processing with a robust spell check and speech to text abilities
Case Study - Student A

General education freshman student
Implement: Chromebook for word processing with a robust spell check and speech to text abilities

**Task**

- **English**: handwritten bell work, google classroom worksheets, handwritten long essays
- **Science**: handwritten worksheets, google classroom worksheets, handwritten long essays
- **Testing**: handwritten long essays
Case Study - Student A

Context
- Cannot use STT in gen ed
- Need wifi for STT (school and home)

General education freshman student
Implement: Chromebook for word processing with a robust spell check and speech to text abilities
Case Study - Student A

General education freshman student
Implement: Chromebook for word processing with a robust spell check and speech to text abilities

Interaction

- English Class - AT used maximally
- Science Class - AT was used less
- Determined which assignments could use STT vs spell check
Case Study – Student A

General education freshman student
Implement: Chromebook for word processing with a robust spell check
and speech to text abilities

Implementation cont.

3. IEP Documentation
   - Present Levels
   - Special Considerations
   - Annual Goals/Objectives
   - Related Services
   - Supplementary Aides and Services
   - Supports to School Personnel
   - Accommodations
   - Testing (district and state)
   - Transition Service Plan - coordinated activities
Case Study – Student A

General education freshman student
Implement: Chromebook for word processing with a robust spell check and speech to text abilities

IEP

- Indicated results of eval/trial and features of technology required for FAPE
- Direct OT for learning to use STT for class assignments (IEP goal for written expression w/ or w/o AT)
- Consultative OT for staff
- AT device across settings
- Daily and testing accommodations for use of technology
Case Study - Student B

- Freshman in a self-contained, functional academics program with ataxia
- Informal evaluation/trial process for alternative written output to pencil/paper and cut and paste
- Successful trial with a ~10 inch touch screen tablet with app to capture and allow direct notation, with word prediction into worksheets (Snap Type)
- Trial with app for capturing and allowing notation, drag and drop, voice notes, and multiple choice worksheets (Go Worksheet Maker) was determined not needed at that time
Case Study - Student B

Person

- Classroom staff required skilled training for how to use tech device and device management
- Student required skilled training for using tech for assignments
- Student required behavioral supports for appropriate use of tech device
- Great buy-in from teacher
- Case manager required support for amending the IEP
Case Study - Student B

Task

- Any handwritten curriculum

Self contained freshman student
Implement: touch screen tablet with capture and notation app
Case Study - Student B

Self contained freshman student
Implement: touch screen tablet with capture and notation app

Context
- Full time aide supports
- Physical space for charging and storing device
- Wifi in classroom
Case Study - Student B

Self contained freshman student
Implement: touch screen tablet with capture and notation app

Interaction
- Ability for on the spot accessibility
- Good fit and buy in led to maximal use of device
- Use and fit lead to later increased tasks implemented
Case Study – Student B

Self contained freshman student
Implement: touch screen tablet with capture and notation app

IEP

- Indicated results of trial and features of technology required for FAPE
- Direct OT for learning to use STT for class assignments (IEP goal for functional academics w/ or w/o AT)
- Consultative OT for staff
- Aide assistance for academics
- Daily and testing accommodations for use of technology
The End!

Questions?