

## Consideration for Assistive Technology

By Andrea Slaven

Name: John      Age: 12      Grade: 5<sup>th</sup>      Disability Classification: Autism

### **Student Information:**

John Doe is a 11 year old, male student with a student disability classification of Autism. He is currently completing 5<sup>th</sup> grade. He participates in the Regular Classroom with the support of Related Services of Speech/Language Therapy and Occupational Therapy unless supplementary aids and service education cannot be satisfactorily achieved.

### **Recommended Special Education Programs and Services:**

General Education is supplemented by the following Special Education Programs and Related Services:

- Consultant Teacher ELA Direct      5x 1hour weekly
- Consultant Teacher Math Direct      4X 40 minutes weekly
- Shared Aid in classroom      5 x 6 hours weekly.
- Occupational Therapy      1 x 30 minutes weekly
- Speech Therapy      3 x 30 minutes weekly

Testing Modifications implemented for State and District-wide Assessments:

- Extended time by 1 hour
- Directions to be read / explained
- Tests read
- Scribe
- On-task prompts
- Delete spelling, grammar, punctuation requirements
- Test in a separate location
- Individual testing

### **Abilities:**

This student's intellectual functioning falls within or just above the extremely low range. Scores fall between first and second grade levels. This may be underestimated, however, due to language delays. In testing, the student performed slightly better with visual information, suggesting a visual learning style.

This student's reading level has improved from 1<sup>st</sup> grade level to 4<sup>th</sup> grade level during the past school year. The student participated in a Specialized Reading Program. He is making much progress in reading.

He is making progress with math facts. He has made great improvement on multiplication facts. He tries to work quickly, working ahead of teacher. His is working on division and fractions.

Student participates in all social activities. Student participates in small groups.

**Environment:**

John is currently completing 5<sup>th</sup> grade and has made much progress during the year. He has been in the regular classroom with supportive services and modifications implemented. John can become easily distracted from environmental stimulation and occasionally becomes fixated on objects. John participates best in small group situations.

**Needs:**

## ELA:

- Language impacts age appropriate social and academic skills.
- ELA tasks require the student to slow down with tasks.
- Specialized Reading Program has made positive impact.

## Writing:

- Writing mechanics are weak. Students need to space words.
- Organizers help develop ideas and stay on task.
- Needs visual cues on spacing between words.

## Speech:

- Needs to continue to develop receptive, expressive and pragmatic language skills.
- Work on improving syntax and semantics, listening comprehension.

## Math:

- Needs to practice math facts to gain mastery.
- Needs to stay focused and on task.
- Need encouragement to keep from being frustrated.

## Behavioral:

- Needs support for self-direction.
- Participates more in small group situations.
- Needs encouragement to interact with peers.
- Needs cues to stay on task.

**Goals for the 2008-2009 School Year:**

Ten goals are outlined for the upcoming school year.

1. Increase reading decoding skills from the beginning of the 4<sup>th</sup> grade level to the end of the 5<sup>th</sup> grade level.
2. Increase reading comprehension skills from the beginning of the 4<sup>th</sup> grade level to the end of the 5<sup>th</sup> grade level.
3. Submit a written assignment on a topic requested by the teacher consisting of at least 3 paragraphs with complete sentences.
4. Recite the times table by rote up to 10.
5. Solve problems of three-digit dividends and two-digit divisors
6. Solve math problems requiring computation of the four basic operations with fractions.
7. Identify and use vocabulary through classification, categorization and association skills.
8. Follow 3 step multi-step directions presented orally incorporating basic and linguistic language.
9. Formulate grammatically correct sentences and maintain appropriate verb tense in oral communication.
10. Independently organize written material on a page with correct spacing between letters and words.

### **Current Assistive Technology Tools Used:**

At this time, the student has access to a word processor, unspecified type.  
Visual Supports

### **AT Recommendations:**

Because this student is recommended to be participating in the regular classroom, assistive technology should be geared to benefit all students in the classroom. Technology chosen can be used for classroom, shared tutoring and individual practice. A continuum of technology can be implemented to meet goals stated above based on the student's abilities. The following recommendations can be used in meeting these goals.

#### ***1. Technology: iPad with Conversation Builder***

Targeted Goals: #8 & #9

Description: This app is used on Apple iPads as an auditory perceptual and speech training program, language tutorial program, and personal/independent living skills tutorial program. The program is targeted for students in three levels, Grades 1-3, 3-6, and 7-9. The program focuses on developing expressive and receptive language as well as social skills/pragmatics. As John is still showing low level communication skills, this app would act as a bridge before beginning the next level program. The app is designed to help elementary children learn how to have conversations with peers in a variety of social situations. Visual and auditory prompts encourages language skills used to converse to promote peer relationships.  
Cost: \$5.99 for base app available on iTunes.

iPads begin at \$499.00

Transitions: This app will be able to follow John for several years. This can also be used in home setting to help develop social language skills with family members. Student can move to *Language Builder Deluxe* (\$7.99 available on iTunes) to improve sentence formation and continue receptive and expressive language.

#### ***2. Technology: WordQ with PC or Mac; iPad version available***

Targeted Goals: #7, #8, and #9,

Description: This app is helpful for writing and is recommended for students classified autism and others who find writing to be a challenge. It offers a multi-sensory approach to sentence composition and expression. It can work with all popular writing programs such as Microsoft Word. The program gives helpful word selections.

Cost: \$199.00

Transitions: This app will be able to follow John for several years.

#### ***3. Technology: Inspiration Maps with iPad***

Targeted Goals: #3, #10, #8 and #6 for some problem solving activities

Description: Inspiration Maps is a graphic organizer computer software for iPads. Just added to the Inspiration software line, *Inspiration Maps* brings the same organizing features of Inspiration Mind-mapping to the iPad. Inspiration Maps as well as Kidspiration and Inspiration mapping software is known for its ability to use brainstorming with words and visuals, group ideas, order ideas in hierarchy and make connections. Ideas are easily manipulated in a whiteboard. Inspiration Maps can be used by the entire class as an aid for writing, storyboarding, and research

outlining. The software will be very visually appealing for John as a means of organizing ideas in the pre-writing stage.

\$14.99 for base app

Transitions: All products from the Inspiration software programs carry through into higher education. Inspiration can be used for organization of daily skills, creating task calendars, lists, behavioral flow charts, and even math visualization for problem solving.

#### **4. Technology: LegiGuides Writing Papers**

Targeted Goals: #10

Description: LegiGuides writing paper serves as a manuscript aid to develop legibility addressing spacing, letter formation, sizing and placement of text on the lines. LegiGuides include yellow horizontal lines to control vertical sizing, vertical lines to form boxes to control spacing, blue bold horizontal lines that give additional cuing for proper placement of text on the line, and allows spacing for descending letters (g, j, p, q, and y).

Cost: \$12.99 per ream.

Transitions: Student should move toward regular paper with practice. Paper can be used in other settings.

#### **5. Technology: MathPad Plus:**

Targeted Goals: #4, #5 and #6

Description: Students can do basic math functions (addition, subtraction, multiplication and division) as well as using fractions and decimals. Visuals such as pie charts, fraction bars and decimal grids are able to be manipulated. Teachers can create student portfolios and customize assignments so that students with disabilities can work on the same material as classmates. MathPad can be used with PC or Mac operating systems.

Cost: Single license - \$99.95; Five License bundle - \$400.00

Transitions: Student will be able to move from basic math functions to problem solving concepts. MathPad allows students to work on virtual paper doing problems on the screen. MathPad Plus is especially helpful for adapting math problems from worksheets or textbooks so that students with learning disabilities can work on the same material as classmates.

#### **6. Technology: A-PlusMath Flash Cards (java or download)**

Targeted Goals: #4

Description: Students can practice math facts for accuracy. Student can practice while on the website or create sets of flashcards. Flash cards can be customized for size. Math practice is targeting students ages 5 – 15. Immediate feedback is given, as well as certificate. The same website also provides worksheets, games and homework helper. A desktop version is also available.

Cost: Free for internet version; \$4.99 for download to computer desktop download.

<<http://www.aplusmath.com/flashcards/>>

Transition: Student can access A-plus Math anywhere with internet connection.

Homework helper is a great feature for home practice.

## **7. Technology: Kurzweil 3000**

Targeted Goals: #1 and #2;

Description: For grades 3 through adult, Kurzweil 3000 is a program which can benefit many students of various abilities in the regular classroom. For John, this program will enhance his reading curriculum as well as moving into content area reading. With this program, the student hears and sees words as they are highlighted. Kurzweil 3000 has technology which can enhance decoding skills by linking the word's shape image to its sound builds. The student can make significant improvement in vocabulary. The program emphasized sounds and spelling, even allowing students with low phonological skills to dictate to the computer. The software uses a multisensory approach—presenting print or electronic text on the computer screen with added visual and auditory accessibility. It incorporates a host of dynamic features (including powerful decoding, study skills, and test taking tools) designed to adapt to each individual's learning style and promote active learning. This program supports UDL.

Cost: \$\$1395.00

Transitions: This software will be able to be used throughout John's educational years and into adulthood. The product supports UDL making cost affordable to many students. John will benefit in reading, writing and study skills, learning along with his peers.

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