CASE STUDY HANDOUT #1 - REFERRAL INFORMATION

Referral Information:

NAME: Thomas T.   **DATE OF BIRTH:** February 12, 1997   **GRADE**: 11

DISABILITY: Muscular Dystrophy   **PRIMARY LANGUAGE:** English

SCHOOL: Longstreet High School   **DISTRICT:** DCISD

DESCRIBE THE REASON FOR THIS REFERRAL:

Thomas is gradually losing extremity and hand function. He has used a wheelchair for 5 years. He has been using a computer to write for 3 years; but now it is hard for him to move his fingers and he fatigues easily. He is in general education classes and Advanced Placement classes for Language Arts and Math. He plans to attend the University of Texas after graduation.

He needs a more efficient way to enter text into the computer than with the standard keyboard and needs something that helps him more than a standard mouse.

ASSISTIVE TECHNOLOGY CURRENTLY USED BY THE STUDENT, IF ANY:

Thomas uses standard computers for writing at school. There is a computer in each classroom in which writing is expected. Thomas uses voice activation to enter text into his computer at home, but this tool was not functional in his classroom settings when it was tried previously.

Thomas uses a personally-owned power wheelchair for mobility.

NOTES:

Records and teacher interviews indicate that voice input tried previously did improve Thomas's computer access, but that it was discontinued because it was disruptive to others in the classroom.

CASE STUDY HANDOUT #2- INFORMATION FROM TRIAL ACTIVITIES

NAME: Thomas T. **DATE OF BIRTH:** February 12, 1997 **GRADE**: 11

DISABILITY: Muscular Dystrophy **DATE OF TRIALS:** start 9-5-12

Date	Tools	Task	WPM
9-5-12	Standard Keyboard	Short answer/ quiz- Science	10 WPM Did not complete assignment; 15 errors
9-15	Voice Activation with macros	Short Essay- Language Arts	Completed in OT room after 2 weeks of "learning to use program; 45 WPM, 10 errors corrected while composing. Some fatigue noted at end of session
10-3	TASH Mini Keyboard	Definitions - Science	After 2 OT sessions to practice; 20 WPM, 25 errors, corrected as composing, had to take a break; did not finish during class
10-10	Onscreen keyboard with word prediction	Short Essay - Language Arts	Used in classroom after one training session with OT; 40 WPM, 4 errors corrected while composing. Some fatigue noted at end of session.
10-10	Small track ball	Completed graphic design project, OT room during study hall	No difficulty using the tool. Use did not hamper keyboard access. Use was transparent and required little training. Very little fatigue
10-23-12	Half QWERTY	Journal – Careers class	After 3 OT sessions practicing use of keyboard and use for 2 weeks in class 15 WPM. High fatigue noted
2-5-13	FrogPad Chorded Keyboard	Short Essay- History	After 1 month of use in classroom. 40 WPM. Some fatigue noted at the end of the session.

THOMAS' INPUT:
- I need to use a computer well and worked with my OT to find the best solution.
- Mini keyboard - Difficulty reaching keys on the edges; also, no feedback to tell me when keys were pressed because it was a membrane keyboard.
- Voice activation - Works great at home, but I do not like to use it in the classroom. Others heard all of my answers.
- Half QWERTY - It is a smaller keyboard than the TASH. It worked pretty well. It is USB, so I could just carry it in my backpack and then ask someone to plug it in for me. I would be tired by last period though since sit took a lot of "stretching" of my thumb to hold down the space key.
- Small Track Ball: I could the use wireless trackball, but it was hard to hit the buttons, so we put it on dwell and things worked better. I liked the Rocket mouse best.
- Onscreen keyboard with word prediction: I liked this and got pretty fast once I got used to it. It saved a lot of keystrokes and I could just keep looking at the screen instead of up and down.

- <u>FrogPad Chorded Keyboard</u>: Has only a few keys and makes letters by pushing down more than one key at a time (chord). The system was wireless as the keyboard sent keystrokes to the computer via infrared. It took about 2 weeks to learn the chords, but it was much easier, faster and I didn't get so tired by the end of the day.
- <u>Computer Strategies</u>: Learned to use keyboard commands. Much less tiring
- <u>Software:</u> MathType gives me all the math symbols as a toolbar in any MS Word program. I learned how to program macros to save steps in computer functions and actions

<u>STAFF INPUT:</u>
- Thomas worked independently with several options
- Thomas learns very quickly
- Voice input was not preferred. Disrupted others.
- The quality of Thomas's work was high on all assignments he was able to complete (see chart)