

## **Mehmet Larcin**

### ***Assistive Tech Project – TBE 550 (max 15 pts)***

For each of the following scenarios, assume you have been asked by general education teachers about possible computer adaptations for special needs students in their classrooms. They want the student to be able to use the classroom or lab computers for the same types of activities as other students.

- (1) Describe what types of adaptations the student would need in order to use computers in a classroom or lab setting.
- (2) Name specific hardware and/or software and advise the teacher where/how to find it.

#### **Student 1**

James was injured in a car accident. He is in 5<sup>th</sup> grade, and is confined to a wheelchair. He has limited use of his hands. He can read and speak normally.

*The computer room should have accessibility for wheelchairs. James would need to use the computers with moveable keyboards (they should not lock down). Need to sit in front of the special table that can be raised and lowered easily.*

*James can use the voice control system software (speech recognition/voice recognition) or he can also choose to use the Scanning software – for those who cannot use their hands. On that software, there are characters/words displayed in grid, single switch chooses (puff switch, button switch and key on keyboard).*

#### **Student 2**

Keesha is an 8<sup>th</sup> grader who was born with Cerebral Palsy. She can walk with some difficulty (uses a walker), but she has little control of her hands (jerking movements). Her speech is difficult to understand. Her reading level is about 3<sup>rd</sup> grade.

*The computer room should have accessibility for wheelchairs. Chair shouldn't be too low or too high for this student. The keyboard that she will use shouldn't be locked down. Adaptations for this student Keesha should includes; Speech synthesis to read screen would help, also she can be paired with a good reader as well. Letting her to use Keyboard Control (latch keys, turn off repetition), Scanning Software – for those who can not use their hands or speak. On that software, there are characters/words displayed in grid, single switch chooses (puff switch, button switch and key on keyboard). Adaptive Programs for the Macintosh could be found under "System Preferences" in Apple Menu. Under "System" section and there will be "Universal Access" adjustments and assistance adjustments for Seeing, Hearing, Keyboard and using Mouse and Trackpad.*

#### **Student 3**

Italia is a high school student who has been hearing impaired since birth. Her hearing loss is partially corrected by hearing aids, but she still cannot hear much of what goes on. She

uses sign language and written notes to communicate. Her reading/writing level is about 4th grade.

*The auditory signals can be replaced by flashes on the screen. Turning up the volume of the computer helps also considering to have her use ear phones would be another choice. Pictorial instructions can replace text.*

*Adaptations for this student would be includes; Adaptive Programs for the Macintosh could be found under "System Preferences" in Apple Menu. Under "System" section and there will be "Universal Access" adjustments and assistance adjustments for Seeing, Hearing, Keyboard and using Mouse and Trackpad.*