

Heide Trask High School

Assistive Computer Workstation Proposal

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MIT512
University of North Carolina at Wilmington

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Mary N. Watson
Director of Exceptional Children's Program
North Carolina Department of Public Instruction
301 North Wilmington Street
Raleigh, NC 27601

Dear Ms. Watson:

Under the direction and supervision of our Principal and district Instructional Technology Coordinator, the Technology and Exceptional Children's departments have collaborated to draft a proposal for a workstation designed to serve our fifteen students with severe disabilities. Here at Heide Trask High School we serve 15 students with physical, communicative and cognitive disabilities – the largest in our district.

Our plan is to modify our current resource area to better serve these students by the addition of a workstation designed specifically for them. This workstation would include hardware and software designed to modify the computing experience, thus making the applications and information more accessible to these students, who have only had very limited and infrequent experiences of this nature.

We have also included in our plan the addition of an Assistive Technology Specialist position at the school level to assist in the design, development and implementation of this environment. We do not currently have anyone working in this capacity in our building and feel that the addition of this person will affect our planning and instruction tremendously. We plan for this person to be directly involved in the installation, maintenance, professional development and support for this workstation and all assistive technology in the school. We hope that this added component will make Heide Trask High School a model of effective assistive technology use at the state level.

Our Principal, Dr. Steven Sullivan, is in full support of this initiative and has agreed that, if this project is funded, he will match the funds to support the workstation. Together the funding will provide these students with access to a workstation designed specifically for them. It is our hope that this will "level the playing field" for these students and increase their performance on all assessments of their progress.

Sincerely,

Martin Howes, Ian Jones, Newman Lanier, Kara Lee

Needs Assessment

Heide Trask High School (HTHS) is located in Rocky Point, Pender County, North Carolina. It is a rural, but growing community approximately fifteen miles outside Wilmington. Currently, the population of HTHS is 671 students. Wilmington is rapidly expanding and this growth has significantly affected the Pender County Schools, especially on the southern border. Not only is the overall student population growing, but the number of students with disabilities requiring the use of assistive devices, educational accommodations and testing modifications. All of the schools in Pender County serve students with a variety of disabilities. HTHS has been identified as serving the highest population of severely disabled students (traumatic brain injury, visual or hearing impaired, mobility impaired and significant cognitive) in email communication with district officials. The school currently serves fifteen students:

Disability	Number of Students
Visually/Hearing/Communication Impaired	1
Mobility Impaired	3
Severe Cognitive Impairment	11
Total	15

Since the federal adoption of No Child Left Behind, students with severe disabilities are required to be tested by Local Education Associations (LEA). Students enrolled in the course for credit must be administered the end-of-course test, with or without accommodations, or, if eligible, the North Carolina Checklist of Academic Standards (NCCLAS) or the NCEXTEND1 standardized test (Watson, 2005). In the past, LEA's could opt not to utilize a standardized test for many of these students, utilizing a performance portfolio instead. This is no longer the case; so the state has developed a series of tests whose results are reported to the federal government.

Student performance is improving. The school has met its growth expectation each year since opening in 2001. Overall student performance on state assessments is 69.1% passing. Unfortunately, students with disabilities at HTHS are not performing quite as well, with only 43.1% passing. This is, however, above the state average of 38.2%. This subgroup includes students with who are both severely disabled and those with minor conditions that require an IEP. District officials indicate that the most severely disabled students are not performing well as an overall group on the NCEXTEND1 since it is a grade-level appropriate modification of an End of Course (EOC) test. Officials state that requiring these students to perform at grade level is a mountain that they are climbing, rather than requiring them to simply show growth as in the past portfolio construction. These students, although growing academically in their own right, are not showing the growth from year to year as their peers, as indicated by their performance on the standardized tests. By implementing this workstation, we can offer this special group of students alternative ways of learning and increase their chances of better performance.

Accommodations for students with disabilities are required by law as indicated in their Individualized Education Plan (IEP) and may range from extended time for assignments/assessments, to reading the test aloud (Mathematics only), to the use of assistive technological devices. This includes screen readers, touch screens, alternative keyboards and mouse systems, voice input systems, Braille printers, etc. Currently, HTHS has a classroom physically designed for students with the most severe disabilities, but the computer assistance is severely lacking without an integrated and comprehensive workstation that these students can access. This does not mean that HTHS is out of compliance with the Individual with Disabilities Education Act (IDEA), they simply are using outdated, mis-configured technology to serve these students, as the approach to assistive technology has been piecemeal, at best, over the years. The district has made significant gains in this area – developing an assistive technology plan, hiring a coordinator to oversee and manage the equipment, and attempting to update equipment as needs arise, although the budget is limited.

Assistive technology for kids with learning disabilities is defined as any device, piece of equipment, or system that helps bypass, work around, or compensate for an individual's specific learning deficits. By designing a workstation for use by these students, the school will increase student access, through the use of modified equipment, to office applications, multimedia development and the vast array of applications that are offered on the Internet. Assistive

technology doesn't cure or eliminate learning difficulties, but it can help children reach their potential because it allows them to capitalize on their strengths and bypass areas of difficulty (Stanberry, Raskind, 2001). Special needs educators who have utilized assistive technology have long known that technology can come close to working miracles in bringing many students with disabilities into the general education curriculum (Lankutis & Kennedy, 2002). "A research base is clearly being established that provides insights about how technologies can provide enhanced opportunities for learning with all children, including those with disabilities" (Weikle & Hadadian 2003). Although there is a multitude of research dealing with specific products, there is no comprehensive study that identifies performance growth as a result of an array of assistive technology devices in a workstation environment. What is evident from the research is that the addition of such a workstation will increase the students' functional abilities when using the computer, thus improving their computer skills.

Although this proposal outlines hardware, software and environmental features of an accessible workstation, current research identifies another crucial need for the success of this project – the addition of an Assistive Technology Specialist (ATS) into the school who will collaborate with teachers to design, develop and implement appropriate lessons. The ATS will offer professional development first to those teachers who are in direct contact with this equipment and these students, but they will also increase faculty knowledge and skills with this and other forms of assistive technology. "It is difficult to remain current in the rapidly developing field of assistive technology, especially for teachers who have so many other areas to keep abreast of. Employing an ATS is one way of bringing that expertise to teachers, similar to the way related service personnel provides expertise to a school district. The role of the ATS is to consult with teachers as they consider assistive technology; assess students to identify their specific needs; and teach the student, teachers, parents, and other service providers to use selected assistive technologies" (Lahm 2003). A report by the Oregon Department of Education states that the top five reasons that assistive technology is not utilized according to the IDEA are:

1. Lack of skills among many educators to access the assistive technology needs of their children and youth with disabilities,
2. Lack of skills among educators to employ assistive technology for children and youth with disabilities,
3. Lack of understanding regarding the best ways to address assistive technology in IEP's,
4. Lack of resources available to help educators learn to use technology as an instructional tool,
5. Lack of information available to educators on the best ways to teach technology skills to students.

We feel that, in addition to the hardware and software outlined in this document, inclusion of an ATS into the school environment will ensure the success of this project. We share a similar view with the research community that "tools are useless without the knowledge of how to use them."

Gap Analysis

Actual Performance	Optimal Performance	Solution
Faculty does not currently know where to find appropriate technology, how to install it or design instruction that includes its use.	Faculty has knowledge of location, installation and use of hardware and software to facilitate.	Professional development offered frequently in the use of assistive technology and design of lessons that will facilitate its use.
Students with visual impairments are able to access written and graphical content on desktop and Internet-based applications for all coursework.	Students with visual impairments are able to access written and graphical content on desktop and Internet-based applications during computer classes and with some instructors.	Reliable student access to assistive technology. Appropriate software installed on a workstation that all students with visual impairment can access.
Students who have limited mobility have consistent access to human interface devices such as switches, adapted keyboards, touch screens, etc. to facilitate computer use.	Students with limited mobility have limited access to adaptive human interface devices.	Installation of human interface devices into a workstation that is available for consistent use by identified students.
Students with severely limited cognitive abilities are provided consistent access to software and hardware that will assist them in manipulating, interpreting and processing information displayed on the computer.	Students have a limited amount of software and hardware designed to assist them in manipulating, interpreting and processing information displayed on the computer.	Purchase and installation of hardware and software designed to assist those with limited cognitive learning abilities.

Project Objectives

From the above gap analysis, the following project objectives are formulated. This proposal outlines the design of a workstation to meet the needs of fifteen students at Heide Trask High School who are identified as impaired in the areas of communication, physical and cognitive.

The workstation will assist these students by offering consistent access to the following accommodations when using a computer:

1. Access to text and pictures using desktop and office applications;
2. Adapted human interface devices (mouse, keyboard, etc.) when manipulating the computer;
3. Ergonomically appropriate furniture;
4. Modified hardware and academic software;

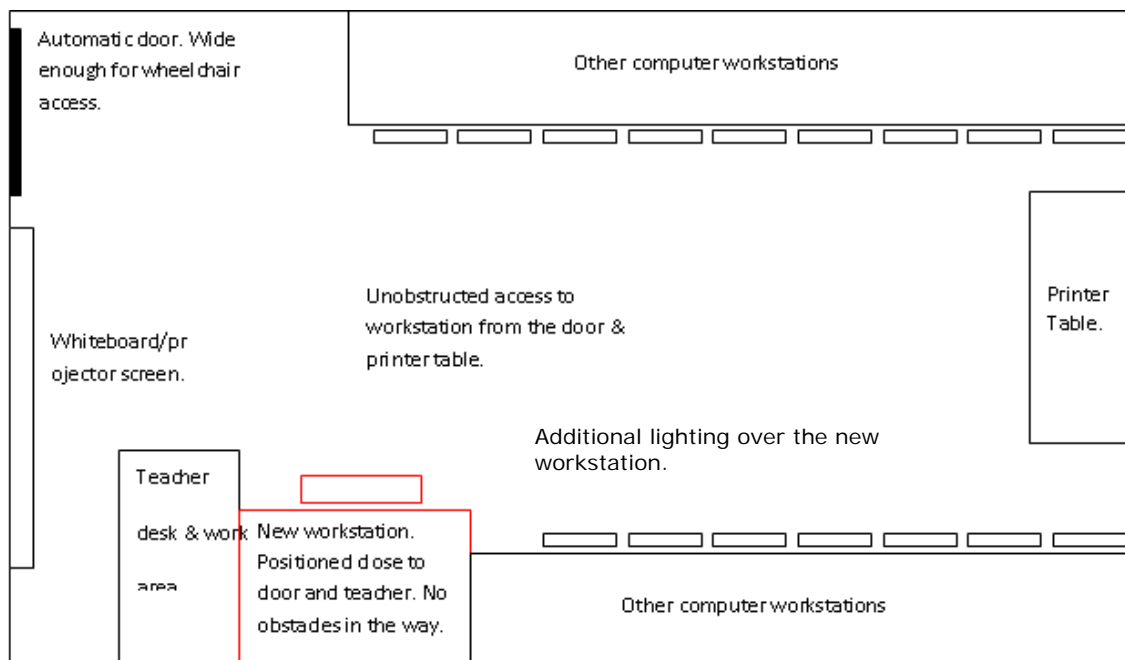
The inclusion of an Assistive Technology Specialist to this proposal will offer the school, teachers and students:

1. Awareness of what assistive devices are available for student and teacher use in the school;
2. Training on how to use a variety of assistive technology devices;
3. Instruction on the design of learning activities that accommodate the use of assistive technology devices;
4. Support when utilizing assistive technology devices;
5. Monitoring the use of assistive technology in the school;
6. Identification of appropriate strategies using assistive technology for inclusion in IEP strategies and testing modifications.

Specific tool references and a detailed implementation plan are included in the following sections of this proposal.

Project Description

Our school computer lab currently has an open space in a corner just right of the entrance. We have chosen this as our location for installing the workstation. Taking into consideration the mobility limitations of our special needs students, we would like to set up the workstation as close to the lab entrance as possible. This will make the bathroom more accessible and decrease the chances of the student feeling crowded when working as some of them are in wheelchairs which may make it more difficult to maneuver through the aisles. Our doorway is already suited to accommodate to wheelchairs; however, we do plan to install an automatic door.




See Appendix – Computer Lab diagram for larger image.

The workstation will consist of several accommodating pieces of equipment and hardware. The desk offers close to 3 feet of workspace which will make it much easier for our disabled students to utilize the area from a wheelchair. The chair for the workstation will offer maximum support for students who require alternative measures for comfort that exceed a standard computer chair. We have chosen a monitor equipped with a wireless mouse and keyboard that are fairly large in size in order to meet the needs of our visually and mobility impaired students. A joystick and ability switches will also be added to these items for students who are unable to use the mouse. USB ports on the monitor can be accessed through the front or back making it more accessible to students who are limited in movement and re-positioning.

Other forms of hardware that will be implemented into the workstation will include a Cicero hard text copy reader which has the ability to transform text into Braille and a Zoom text keyboard which will be helpful not only for visually impaired students, but also students who lack the coordination needed to position their hands on a standard-sized keyboard.

Additionally, we will purchase Zoom Text software. This product gives students an opportunity to listen to their literature by reading it out loud for them. Zoom text gives the audio through speakers/headphones which will also be purchased for this purpose. In order to coincide with Zoom Text, we find it necessary to also purchase Dragon Naturally Speaking. This software enables the user to speak through a microphone while it transcribes any words spoken into a document format. Lastly, the Words and Concepts series will be used in assisting our students who demonstrate below average cognitive complications.

The following is a detailed list of these items along with pricing:

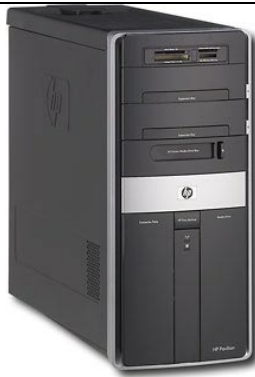
Furniture	
Equity 4830 Accessible Computer Workstation: Computer desk	\$872
 <p><i>"This workstation accommodates students of all ages and abilities at an excellent price. The Equity 4830 is an ideal solution when frequent adjustment is needed to accommodate students who use wheelchairs. An easy-to-turn hand crank provides infinite work surface adjustment between 24-34 inches to meet the functional requirements of students with disabilities and the requirements of the ADA. Two-Year Warranty."</i></p> <p>http://www.acesinc.com/cart/shopexd.asp?id=326</p>	<p>This accessible workstation desk allows for height adjustment for students with wheelchairs. It also has a large surface to accommodate AT peripherals.</p>

High-Back Ergonomic Chair: desk chair	\$913
 <p><i>"Point Posture Control adjustability puts at your command the tools to address and alleviate stressful aches and pains. This unique seat design provides maximum weight distribution via surface contact and encourages proper-seated posture against the backrest for maximum support."</i></p> <p>http://www.enablemart.com/</p>	<p>An ergonomic chair is necessary to reduce strain of sitting for long periods of time.</p>

Computer Hardware

HP - Pavilion Elite Q6600 TV desktop : Desktop computer

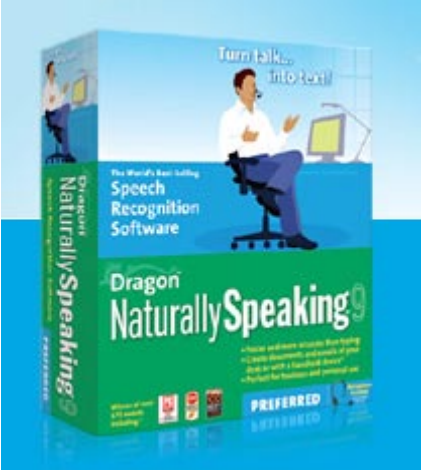

\$1200

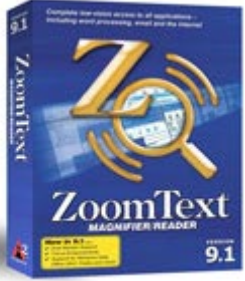





Model: m9040n | SKU: 8542179 Processor: Intel® Core™2 Quad processor Q6600 with 4 processing cores Memory: 3GB PC2-5300 DDR2 SDRAM for multitasking power, expandable to 8GB Storage: 640GB Serial ATA hard drive capacity (320GB x 2; 7200 rpm) Drive Bay Options: SuperMulti DVD±RW/CD-RW drive with double-layer support Video Graphics: NVIDIA GeForce 8400 GS graphics and 256MB dedicated video memory, Convenient Ports: 2 IEEE 1394 interfaces and 6 high-speed USB 2.0 ports, both front and rear accessible, for fast digital data transfer and easy peripheral connectivity Keyboard and Mouse: HP wireless keyboard and HP wireless optical mouse
<http://www.bestbuy.com/>



A multimedia computer with quality components is necessary for our workstation. Particularly, The CPU must be high powered and RAM capacity must be large to handle the intensive AT software applications. This model also has large storage capacity and 6 USB ports needed for AT peripherals.



21" Widescreen Flat-Panel LCD : Monitor	\$450
<div data-bbox="191 268 620 613" data-label="Image"> </div> <p data-bbox="191 598 1101 756"> <i>"Model: X241WSD SKU: 8260534 A fast 6 ms response time can take on gaming and multimedia applications with ease. Product Features: Ultrafast 6 ms response time, 1000:1 contrast ratio; 500 cd/m² brightness 1920 x 120 maximum resolution; 178° horizontal and vertical viewing angles"</i> </p> <p data-bbox="191 793 483 827"> http://www.bestbuy.com/ </p>	<p data-bbox="1133 262 1445 420"> A large monitor is necessary to allow large graphics for visually impaired and allowed space for screen magnification. </p>
KEYTEC'S Magic Touch : Touch screen Monitor	\$270
<div data-bbox="191 871 597 1123" data-label="Image"> </div> <p data-bbox="191 1102 1101 1291"> <i>"KEYTEC'S Magic Touch provides unique simplicity. The barriers of learning/working are broken when a disabled person has equal access to his/her peers. Those who cannot understand the concept of using a keyboard or mouse (left/right clicking, dragging) have a much easier time touching the screen. Young and autistic children can now focus on learning applications as opposed to learning how to use computer hardware."</i> </p> <p data-bbox="191 1297 717 1327"> http://www.magictouch.com/assistivetech.html </p>	<p data-bbox="1133 871 1445 1228"> "Allows direct selection or activation of the computer by touching the screen, making it easier to select an option directly rather than through a mouse movement or keyboard. Touch screens are either built into the computer monitor or can be added onto a computer monitor." </p> <p data-bbox="1133 1260 1445 1413"> This is a good addition to those with low cognitive ability who may not be able to use the mouse or other abstract pointing device. </p>



Software		
Dragon Naturally speaking : Speech to text / voice recognition software		\$200
 <p><i>“Dragon NaturallySpeaking Preferred 9 gives small business users and PC enthusiasts the power to create documents, reports, e-mails and more—all by speaking! Fast, easy and amazingly accurate, it’s over three times faster than typing. Just use your voice to dictate and edit in Microsoft® Word and Excel®, Corel® WordPerfect®, and virtually all Windows®-based applications. You can even dictate into a handheld device when you’re away from your PC, or use a Bluetooth microphone! It’s never been easier to use—no script reading required, so you can get started right away!”</i> http://www.nuance.com/naturallyspeaking/preferred/</p>		Voice recognition can lessen the need for keyboarding and allow for text communication for physically impaired students.
Words and Concepts Series : Reading program software		\$230
 <p><i>“This award-winning series will help students build vocabulary, strengthen language comprehension, discover word relationships, and develop important concepts. The Words and Concepts Series integrates language and concept training in a unique way. Each program uses a core vocabulary of 40 nouns in six related language activities: Vocabulary, Categorization, Word Identification by Function, Word Association, and the Concepts of Same and Different. This series can be used with non-readers, but there is also a text option for beginning readers.”</i> http://www.enablemart.com/</p>		This software program series benefits students with low cognitive abilities by strengthening language and conceptual skills. CBT is an excellent delivery method because of the remedial and repetitive nature of the exercises needed by the student.

ZOOM text: Screen reader and magnifier software	\$600
 <p><i>"Combining the revolutionary new features of ZoomText Magnifier with a powerful set of reading tools, ZoomText Magnifier/Reader gives you the total computer access solution. See and hear what you're doing in all of your applications, and give your eyes a rest while ZoomText reads your documents, web pages and email - right through your computer's speakers. With ZoomText Magnifier/Reader, your computer is easier to see, hear, and use."</i></p> <p>http://www.aisquared.com/Products/zoomtextmrd/index.cfm</p>	<p>A screen reader is a must have application for visually impaired students. It allows any text to be heard through the computers speakers or headphones. This application also includes a magnifier that allows students with poor vision to read on screen text with less strain.</p>
Cicero: Hard Copy Text Reader software	\$500
 <p><i>"Cicero effectively takes your computer and scanner and turns them into a reading machine for people with a visual impairment. Printed text documents are placed on the scanner and can then be translated into speech, Braille or simply held as a text document which can be adjusted, saved, edited and printed out."</i></p> <p>http://www.enablemart.com/Catalog/Scanning-Reading/Cicero-Text-Reader</p>	<p>Cicero allows the student to have paper based or hard copy text documents read via the computers speakers or headphones. This opens the entire library to the student and teacher.</p>

Peripherals	
ZoomText keyboard : enhanced keyboard for vision impaired	\$100
 <p><i>"Designed for anyone who struggles to see the lettering on their keyboard, the new ZoomText keyboard makes typing faster and easier than ever before. Each key and button label is easy to see, even in low light, thanks to its 36-point text and choice of high-contrast color schemes: "Black on Yellow" or "White on Black". The ZoomText keyboard also provides quick access to ZoomText 9.0 features. Sixteen dedicated buttons allow you to instantly start ZoomText, change magnification levels, toggle screen enhancements, launch AppReader and DocReader, and more, all without having to memorize hotkeys. You can even reassign each feature key to your choice of ZoomText commands, Internet and multimedia commands, or to open an application, document or web page."</i></p> <p>http://www.aisquared.com/Products/Keyboard.cfm</p>	<p>A large keyboard reduces strain and barriers to effective keyboard for students with motor function impairment.</p>
SAM-Joystick : Joystick	\$230
 <p><i>"A simple mouse alternative. This joystick allows the user to control a computer cursor. When you push the stick, the cursor does not go flying, no matter what the user does. It simply moves in that direction at a given speed, controllable by the supervisor from a switch underneath."</i></p> <p>http://www.enablemart.com</p>	<p>An assistive joystick replaces the mouse to control the cursor and manipulate the computer interface.</p>

Tash Buddy Button Switches : Ability switch	\$45
 <p><i>"The reliable, durable, colorful single switch, activated by pressing anywhere on the top surface. Auditory and tactile feedback."</i> http://www.iltsource.com/Tash_Buddy_Button_Switches_p/buddybutton.htm</p>	<p>The purpose of an assistive technology switch is to replace any action a person would normally perform, such as turning on a light, making a phone call, etc. Many actions deemed otherwise impossible can be made a part of everyday life by employing an assistive technology switch.</p>
The Romeo Attaché : Portable Braille Embosser	\$2200
 <p><i>"The Romeo Attaché make the world's best Braille embosser quality more transportable than ever. The Romeo Attaché and Romeo Attaché Pro weigh less than 17 pounds, use 8.5-inch wide tractor paper, Braille at 15 characters per second, and include three ports including a USB port) for easy connectivity. The Romeo Attaché and Attaché Pro are perfect for on-the-go teachers and students. Or add your favorite Braille notetaker and create a practical, space-saving home office with Braille capability. The Romeo Attaché Pro comes equipped with single-sheet tractors and speaks keypad commands and status message for easier use. For either model, the optional carrying case with extra pockets and a shoulder strap adds even more ease and convenience".</i> http://www.enablemart.com/Catalog/Braille-Embossers/Romeo-Attache</p>	<p><i>"Braille embossers transfer computer generated text into embossed Braille output. Braille translation programs convert text scanned-in or generated via standard word processing programs into Braille, which can be printed on the embosser."</i></p>

Altec Multi-Purpose Speaker System :Speakers	\$28
 <p style="text-align: center;"><i>“Get more out of your CD player, MP3 player, video gaming system or PC. With this Multi-Purpose Speaker System, just about any tiny digital device is capable of powerful audio, and it's as simple as plug and play. Includes iPod/MP3 player cradle.</i></p> <ul style="list-style-type: none"> <i>* Quality stereo: Gaming, music or movies — your PC will come alive</i> <i>* Improved sound imaging: Two separate satellite speakers improve perception of both gaming action and stereo recordings</i> <i>* Distinctive Styling: Elegant design with cloth grill</i> <i>* Not just for your PC: Easily connects to video gaming systems, portable CD players, MP3 players, and more</i> <i>* Built-in Controls: Power, volume, bass and tone are all at your fingertips.</i> <i>* Easy Set-up: You're up and running in seconds — with a built-in power supply, you can plug in anywhere</i> <i>* Shielded Satellites: For use near video monitors”</i> <p>http://www.walmart.com/</p>	<p>Speakers with better than average quality are necessary for delivering audio content for student. Also, some students are not able to wear headphones.</p>
Insignia® - Bluetooth Wireless Behind-the-Head Headphones : Wireless Headphones	\$60
 <p style="text-align: center;"><i>“Enjoy all your favorite songs from your Bluetooth-enabled MP3 player, cell phone or PC with these Bluetooth-compatible headphones that feature a behind-the-head design for a comfortable fit.</i></p> <p><i>Product Features: Wireless Bluetooth connection to your Bluetooth-enabled MP3 player, cell phone or PC, Behind-the-head design, Over-the-ear style for a comfortable fit, Stereo sound for quality listening, 10 hours of continuous music play, Built-in microphone</i></p> <p>http://www.bestbuy.com/</p>	<p>A pair of wireless behind the head headphones allow students to use the headphones without restricting movement due to wires.</p>

Cables to Go 7- Aluminum Hub Port USB 2.0: USB Hub	\$45
 <p style="text-align: right;"><i>"Connect more stuff to your PC.</i></p> <p><i>Use this Cables to Go 7-Port USB 2.0 Aluminum Hub to conveniently add seven high-speed USB 2.0 ports to your desktop or notebook PC. It can be self-powered from the USB port or utilize the included power supply."</i></p> <p>http://www.radioshack.com/</p>	<p>Each student will have peripheral that are necessary and tailored to them by the IDE. Most of these require a serial interface such as USB. Access to these ports is often on the back of the computer and difficult even for able bodied students. The desktop computer has two ports on the front of the computer. The hub can be placed anywhere on the workstation and includes 7 ports to ensure sufficient and accessible interface.</p>
Plantronics Audio 300: PC Microphone	\$25
 <p style="text-align: right;"><i>"Speak your mind with precision during multiplayer gaming and Internet talk. The Plantronics .Audio™ 300 boasts noise-canceling technology that cuts through background clamor and conveys PC gaming, talking, voice recording, and video conferencing with crystal clarity. The .Audio 300 is plug-and-play ready and offers a convenient monitor mount attachment for rapid repositioning."</i></p> <p>http://www.pccasegear.com/prod2952.htm</p>	<p>A microphone is necessary for audio input to AT applications such as voice recognition.</p>
Total Estimated Cost of Equipment	\$ 8,000

Implementation Plan

The plan for implementing this new workstation has three stages. The final goal is making the computer lab accessible for all our students. Our plan involves creation of a school ADA committee which includes the Assistive Technology Specialist, District Technology coordinator, School lab technician, and Exceptional Children's coordinator. They will oversee the development and execution of the plan.

Stage I :

- Employ Assistive Technology Specialist (ATS)
- Develop acceptable use policy (AUP)
- Develop professional development plan for teachers

Using the funds for the grant in addition to our seed money (cash match) provided by our principal from a school fundraiser, we plan to employ an ATS at Heide Trask High School. As a state funded school, HTHS will have an increase in school funding as a result of the North Carolina Education Lottery beginning in the 2008-2009 school year. We will sustain this position by using our additional funds to include an ATS in our yearly budget. We will also increase our Electrical budget by a small amount in order to meet the needs of the operational expenses.

The next step in Stage I is to develop an AUP, as a collaborative effort by the school ADA committee. The AUP will be developed based on guidelines from the ADA and standard Pender County School policies. This document instructs teachers and student how to use the workstation, including rules and regulations.

The ADA committee will also collaborate to form a Professional Development Plan. All school staff that assist their students in accessing the workstation will complete a set amount of training prior to opening the workstation.

Stage II

- Modify / renovate space
- Assemble Furniture

Stage II of our implementation plan consists of renovations that need to be made prior to installing the workstation. These renovations will include removing the current entrance door to the lab and replacing it with an automatic handicap accessible door. New light fixtures will be installed in the corner of the lab to add to the current lighting. Lastly, the workstation desk will be assembled and placed appropriately into the space.

Stage III

- Purchase hardware, software, and peripherals
- Install furniture, hardware, software, and peripherals
- Test all system
- Implement professional development for teachers

After stages I and II are completed, we will purchase the selected hardware and software items and install them into workstation. The ATS will be responsible for installing software onto the computer and conducting tests to ensure functionality and appropriateness for the students. EnableMart.com, which is the site where several items will be purchased, has a program in which they assist in installing some equipment. We will use their services in the installation process. Additionally, they offer professional development training, which we will use in addition to our own professional development plan created in stage I. The School lab technician, Exceptional Children's coordinator, and Assistive Technology Specialist will carry out the professional development plan to all teachers at Heide Trask High School.

The following is a table that maps out all stages of this proposal. It is our intentions to complete all stages within a 6-month time frame:

Task	Time	Personnel
Employ Assistive Technology Specialist	Stage I	District Human Resources
Develop acceptable use policy (AUP)	Stage I	School ADA committee <ul style="list-style-type: none"> • Assistive Technology Specialist, • District Technology coordinator, • School lab technician, • Exceptional Children's coordinator
Develop professional development plan for teachers	Stage I	Exceptional Children's coordinator and Assistive Technology Specialist
Modify / renovate space	Stage II	Physical plant
Assemble furniture	Stage II	Physical plant
Purchase hardware, software, and peripherals	Stage III	School ADA committee
Install furniture, hardware, software, and peripherals	Stage III	Committee and physical plant
Test all systems	Stage III	School lab technician, Exceptional Children's coordinator, and Assistive Technology Specialist
Implement professional development for teachers	Stage III	School lab technician, Exceptional Children's coordinator, and Assistive Technology Specialist

References

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Appendix – Computer Lab diagram

