

ADA Compliant Workstation Proposal for Pine Valley Elementary



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**MIT 512
University of North Carolina at Wilmington
November 22, 2008**

Introduction

Keeping up with new technologies, in an effort to create the best educational settings possible, is a daunting challenge for all school districts. A very similar challenge confronts educational districts to keep up with new technologies to provide an equitable educational experience for students with disabilities while complying with the Americans with Disabilities Act (ADA) and the Individuals with Disabilities Act (IDEA) and the Disability Discrimination Act (DDA). Educational institutions must respect the equal access clause of the Constitution of the United States and must value equal access to a quality education for all students, including individuals with disabilities. Unfortunately Pine Valley Elementary School has been negligent in compliance with these federal laws. Our neglect of children with disabilities leaves Pine Valley Elementary School vulnerable to legal action by not complying with the aforementioned federal laws. Unfortunately this is educationally negligent as well. The internet, computers, software and multimedia content have revolutionized education, but it has also excluded some children from accessing the content and information it provides by not being universally accessible to all people. However, today's technologies offer tremendous opportunities to meet the needs of students with disabilities, and as such, Pine Valley Elementary School wants to be at the forefront of implementing new technologies.

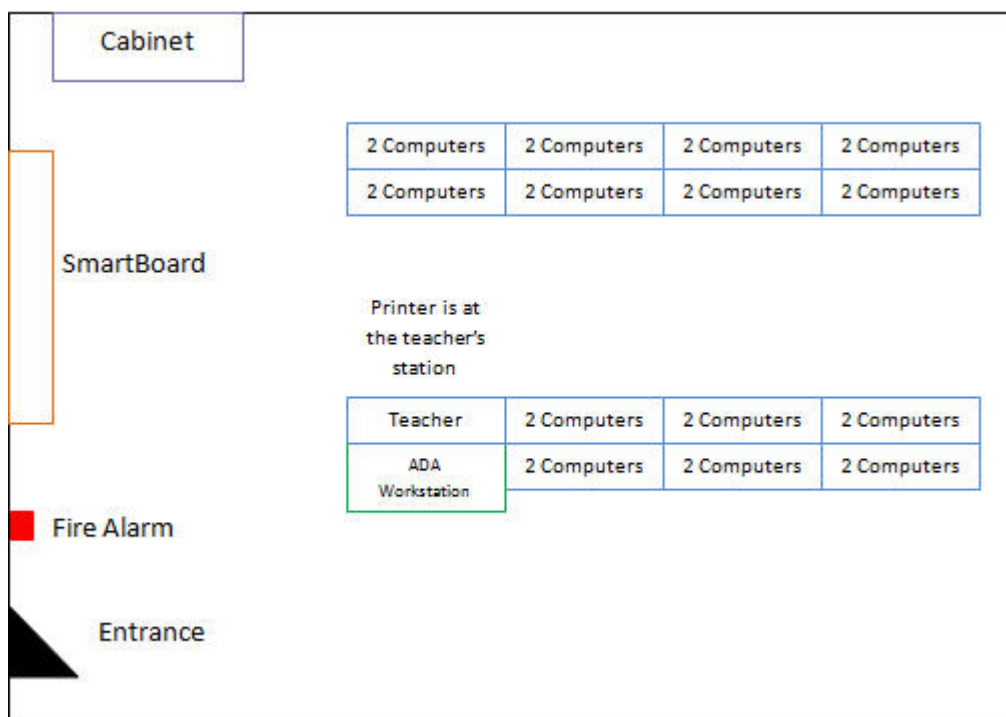
It is our aspiration to reconfigure the computer lab at our school with an ADA compliant workstation that is completely accessible to children with disabilities and outfit the workstation with the newest technologies to mitigate our students' disabilities and provide greater inclusion for within the classroom. Our workstation will provide a wheelchair accessible computer desk with a vast array of software programs that will cater to physical, visual and auditory disabilities. We hope to obtain software that converts the text on the computer screen to audio and Braille transcriptions, transcribes audio and speech from multimedia applications to text transcriptions, and provides computer screen magnification. The reality is that these steps should have been taken a long time ago, but now there exists such incredible technologies that it is the perfect time to bring Pine Valley's computer lab into the 21st century, become compliant with federal law, and drastically improve the quality of education for our students. It is for these reasons that we are applying for a grant to offset the costs of the ADA compliant computer workstation. Below is listed the specifics of the implementation plan, design, and software and hardware for the ADA compliant workstation that we hope to make a reality at Pine Valley Elementary School should we receive the grant.

Computer Lab Space Design

In the computer lab at Pine Valley Elementary school all the computers are networked with a color Laser printer. Currently, all the software and additional devices, such as the Quizdom set, the AlphaSmart set, and the five DANAs, are all locked in a cabinet on one side of the lab. These items, as well as the items that this proposal is proposing to purchase, will be locked in this cabinet; and they will be checked out as needed, by the Computer Resource Teacher (CRT). There is also a SmartBoard on one wall. As such, the new computer workstation needs to be in an accessible place, but it also needs to be in a position where the SmartBoard can be seen by individuals with a

visual impairments. In install the new workstation in the computer lab, two of the current computers will be removed from the lab to make space. There will be one teacher computer, 28 other computers, and one computer that will be positioned on the new ADA compliant workstation. The teacher's computer will be hooked up to the SmartBoard at the front of the computer lab. The other 28 computers will be positioned on the tables that are already in the lab. One of these tables will be removed so that the workstation can be placed in that table's previous location. The workstation will be located close to the exit door, and the path surrounding the workstation will be easily passable (36"). Also, the fire alarm will be moved so that it is in a location where visually and hearing impaired students can easily see/hear the alarm.

Computer Lab Space Design Diagram



Workstation Design (Appendix A)

The computer lab at Pine Valley will house the new ADA compliant work station. The work station will be designed to accommodate students with a variety of disabilities. The workstation has the following requirements (see table – Appendix A):

Furniture

The workstation will have a multi-use table by AD-AS furniture solutions. This table is ADA compliant and an ADA universal sign will be displayed on the table. The AD-AS Infinity 6030 table has a durable laminate top that is 60"W x 30"D. The table is also easily wheelchair accessible and height adjustable. This table utilizes push buttons. These push buttons are easy for both students and teachers to use; they allow the student to have more autonomy by lowering or lifting the table without assistance, if desired.

The buttons control a motor that uses hydraulics to lift and lower the table to the desired height. The height can be adjusted from 27” to 39” high.

Software

To accommodate students with differing disabilities it is important to have software that assists students with motor, hearing, and visual impairments. The following software will be installed on the computer to ensure that the workstation is ADA compliant:

Assistive Software for the Visually-Impaired

Key to Access – the Key to Access provides a visually-impaired student with ten different software programs. The programs are all on the Key to Access so they are portable and can be used on any computer. The software programs included are: Scan and Read Pro, Talking Word Processor, Premier Predictor Pro, PDF Equalizer, PDF Magic Pro, Text-to-Audio, E-Text Reader, Universal Reader Plus, Ultimate Talking Dictionary, and Talking Calculator. All of these software programs assist visually-impaired students by adapting the print, the computer screen, and a calculator into a spoken form.

Zoomtext – this software magnifies the computer screen up to 36x and enhances fonts, cursors, and colors on the screen.

Assistive Software for the Hearing Impaired

iCommunicator – this software program allows users to convert spoken word into a text format and/or a video utilizing sign language.

Assistive Software for the Motor Skill Impaired

Dragon Naturally Speaking – this software allows students to dictate and the software turns their spoken word into a word processing document.

Hardware

The computer at the ADA work station will have the same model Microtower desktop as the other computers that are in computer lab (Hewlett Packard dx5150 MT). The rest of the computer accessories will need to be modified for use by students with disabilities. The monitor for this computer will be an upgrade from a regular 15” monitor to a 19” monitor. The monitor will also be equipped with a touch screen add-on. This device helps students that have a hard time using a keyboard and mouse.

The keyboard will be a ZoomText with Braille labels applied to each key on the keyboard to assist students that are vision impaired. The keyboard will also have a positioning tray that holds the keyboard in different positions and a key guard that is easy to attach when a student needs it. A SAM Joystick and a trackball Expert Mouse will be options for students that have a hard time manipulating the regular mouse.

Wireless headphones, speakers, and microphone will also be used at this workstation. The wireless headphones allow for the students to be able to move away from the computer. The wireless speakers allow for the same amount of movement. The wireless microphone makes it possible for the teacher and the student to use. The teacher

can use the microphone as a voice recorder. The student can use the microphone with the software that will be installed on the computer.

The computer lab will have a scanner, a Braille printer, and a Key to Access. A Key to Access will be used by students as a digital recorder, a flash drive, and it will have access to multiple software programs that help students with differing disabilities. A USB port hub will also be purchased to ensure that all devices can be plugged into the computer at the ADA compliant workstation. The USB hub provides easy access so that students and teachers do not have to reach around to the back of the computer tower to plug in the additional assistive technology devices.

Implementation

According to IDEA’s Least Restrictive Environment statute, disabled students must be in the same setting as non-disabled peers as much as possible. The lack of assistive technology at Pine Valley Elementary is causing the school to be non-compliant with this statute. To resolve this problem, we propose the implementation of an ADA compliant workstation in the computer lab. This allows students with disabilities to participate in class activities when they are in the computer lab with their peers.

The implementation will be completed in seven phases. The goal is to have the workstation fully implemented and operational by the beginning of the next school year, August 2009.

Implementation Plan

What	Phase 1: Grant Planning & Submission	Phase 2: Space, Facilities, and Furniture Modification	Phase 3: Purchasing	Phase 4: Installation	Phase 5: System Test	Phase 6: Policy Design	Phase 7: Training
When	January 2009	February 2009	March 2009	April 2009	May 2009	June 2009	June 2009
Who	EC Resource Team CRT New Hanover County Schools (NHCS) Technology Department Principal	Principal CRT NHCS Technology Department Exceptional Children’s (EC) Resource Team Custodians	Principal CRT School Treasurer NHCS Technology Department EC Resource Team	CRT NHCS Technology Department	CRT NHCS Technology Department EC Resource Team	CRT EC Resource Team Principal	CRT

Phase 1

This phase is conducted by the CRT, the EC Resource team, and the NHCS Technology Department. Due to the economy and lack of monetary resources in the NHCS budget, it is imperative that the grant proposal is perfect. The EC Resource team and the CRT will assess the current technology at Pine Valley Elementary. After the assessment is complete, the CRT and EC Resource Team will research to determine which furniture, software programs, and hardware will be selected to design a complete ADA compliant workstation. The NHCS Technology Department will also be consulted in this initial assessment and investigation. The selection will be guided by the current and future students' needs. The CRT will have to double-check the required hardware, software, and furniture requests outlined in this proposal. Then the grant will be submitted for review. The Principal will be responsible for approving the final draft plan of the grant proposal and submit after any final changes.

Phase 2

This phase is conducted by the CRT, the EC Resource team, the NHCS Technology Department. The first step will be conducting an assessment of the space. The CRT and the EC Resource team will determine the best placement for the workstation. It will be positioned near the exit and close to the SmartBoard. The Principal will then be responsible for approving any modification to the space, facilities, and furniture. Once the modifications are approved, the EC Resource team will request the new workstation table to replace the current table in the computer lab. The custodians will remove two extraneous computers and a table from the computer lab to accommodate the new workstation. The CRT will be responsible for planning all the modifications while consulting the NHCS technology department and the EC Resource team. The custodians will help with moving the old furniture out and the new workstation table in, when it arrives. The NHCS Technology Department will help the CRT ensure that the new workstation is wired appropriately to the peripheral devices and the laser printer used in the computer lab.

Phase 3

This phase is conducted by the CRT, the EC Resource team, the NHCS Technology Department and the NHCS Treasures. The CRT and EC Resource team will compile the list of hardware, software, and peripheral devices needed to make the workstation ADA compliant and prepare a list of purchases. The NHCS Technology Department will also be consulted to make sure that all purchases are necessary to make the workstation ADA compliant. The Principal will be responsible for approving the final list. The school Treasurer will await the funds from the grant to complete the purchase request.

Phase 4

This phase is completed by the CRT and the NHCS Technology Department. The New Hanover Technology Department has access to setup and install the new workstation. So, they will work with the CRT to install the new hardware and software. During this phase, each student with disabilities will be given an account on the new workstation. The

computer will also be setup with icons as opposed to the Novell Application Launcher. The new monitor and software will make these icons easier to see for the students.

Phase 5

At this point in the implementation plan, it is important to have the EC Resource team assist the CRT with testing the system. The NHCS Technology Department will assist with the system test to make sure the network is working properly and make sure that the student accounts are active on the new workstation. The EC Resource team and the CRT will collaborate to determine how to test the system so that it is ready for students to use. The EC Resource team can also provide for students to test the workstation after everything has been tested at least twice by the CRT and the NHCS Technology Department.

Phase 6

This phase is completed by the CRT, the Principal, and the EC Resource team. The new Technology Use Policy will establish that only students with disabilities will be allowed to use the workstation. Each student will have their own account on the computer. The students will be required to turn in a form that states that they understand the Acceptable Use Policy and the Network and Internet Access Policy.

Phase 7





Students and teachers will be trained by the CRT on how to use the new workstation. The students and teachers will be trained on how to adjust the height of the workstation. They will also be trained on how to use the new hardware and the new software programs.




After all the phases are accomplished the implementation will be complete and the ADA compliant workstation will be fully operational.





Summary






In providing the aforementioned software, hardware and furniture, Pine Valley Elementary School will greatly improve its educational potential as an educational institution and help us comply with the federal laws that protect the rights of Americans with disabilities. The sad reality is that there are students right now at our school that would benefit greatly from the ADA compliant workstation and assistive technologies that do not have access to it. There have also been many students who have moved on from Pine Valley that would have benefited from the proposed ADA compliant workstation. We feel it is important to acknowledge our shortcomings, but we are also looking forward to a brighter future for our disabled students. These assistive technologies will benefit generations of future Pine Valley students who have disabilities, by providing access to the educational clearinghouse that is the internet, and improve their integration and inclusion into their classroom environments. Please help us make these changes by allocating necessary funding to Pine Valley Elementary School to help this dream become a reality. Thank you for considering our grant application and proposal.





Appendix A

Product	Picture	More Info	Why is it necessary?
Furniture			
AD-AS Infinity 6030 table		http://www.infogrip.com/product_view.asp?RecordNumber=748&sbcolor=%23CC99CC&option=desk&subcategory=78&CatTxt=Adjustable+Desks+%2F+Tables&optiontxt=Desk	Easy to use and adjustable in height to meet ADA. Makes the workstation wheelchair accessible.
Software			
Key to Access		http://www.readingmadeez.com/products/keytoaccess.html	This item has ten software programs on it that help people with visual impairments.
Zoomtext		http://www.enablement.com/Catalog/Screen-Magnification/ZoomText?leadsource=137&gclid=CKaBrJTviZcCFQMqswod-nWk_Q	Helps students magnify the computer screen.
iCommunicator		http://www.icommunicator.com/	Converts spoken word into text and sign language format.

Dragon Speaking Naturally		http://www.nuance.com/naturalspeaking/	Converts dictation into a word processing document.
Hardware			
HP dx5150 MT		http://developer.novell.com/yes/86707.htm	This computer tower has the basic requirements needed to be able to use the assistive technologies.
19" HP monitor		http://images.google.com/imgres?imgurl=http://www.vsc-trgovina.com/slike/vlike/monitor-hp-11908w-gp536aa-hewlett-packard-19-wide-format-0285-mm-1440x900-10001/240060/monitori/&usq=22H7xYiloHid0jDYQvAKvgHP4hw=&h=500&w=500&sz=18&hl=en&start=2&um=1&tbnid=VzBONHypYv4GUM:&tbnh=130&tbnw=130&prev=/images%3Fq%3D19%2522%2BP%2Bmonitor%26um%3D1%26hl%3D	This is a large enough monitor so that it is easier to see the icons and the programs used on this computer.

		en%26client%3Dfir efox- a%26rls%3Dorg.mo zilla:en- US:official%26sa% 3DN	
Keytec Magic touch Monitor		http://www.magic touch.com/monitor.ht ml	Converts a regular monitor into a touch screen monitor.
Zoomtext keyboard		http://www.infogrip .com/product_view. asp?RecordNumber =1011&sbcolor=%2 3FF9966&option=k eyboard&subcatego ry=4&CatTxt=Larg e+%2F+Large+Prin t+%2F+Large+Keys &optiontxt=Keyboa rd	This keyboard has enlarged font on the keys. This allows for easier understanding of the keys for people with visual impairments.
Braille Labels for keyboard		http://www.enable art.com/Catalog/Lar ge-Key-Large-Print- Keyboards/Braille- Labels?leadsource= 137&gclid=CKjj3b 3hiZcCFQQRswod 6DmW-A	This is an add-on that helps people who are visually impaired be able to type.
Keyboard tray		http://www.infogrip .com/product_view. asp?RecordNumber =263&sbcolor=%23 FF9966&option=ke yboard&subcategor y=7&CatTxt=Acces sories&optiontxt=K eyboard	This is a keyboard tray that is ergonomic in design and it helps position the keyboard so that it is easier for to use for each user.

<p>Key guard for keyboard</p>		<p>http://www.infogrip.com/product_view.asp?RecordNumber=1105&sbcolor=%23FF9966&option=keyboard&subcategory=7&CatTxt=Accessories&optiontxt=Keyboard</p>	<p>This is used so that students with motor skill impairment can lay their hands on the keyboard without hitting the keys. Holes in the keyguard provide a way to stabilize hands and minimize errors.</p>
<p>SAM Joystick</p>		<p>http://www.enablemart.com/Catalog/Trackballs-Joysticks/SAM-Joystick</p>	<p>This is an alternative to the regular computer mouse. This is a way for some students to manipulation the cursor.</p>
<p>Expert Mouse</p>		<p>http://us.kensington.com/html/2200.html</p>	<p>This is an alternative to the regular computer mouse. This is a way for some students to manipulation the cursor.</p>
<p>Wireless headphones</p>		<p>http://www.bose.com/controller?event=DTC_LINKS_TARGET_EVENT&DTCLinkID=7655&perfsourceid=k9677&src=k9677</p>	<p>Allows students to use the headphones without having to be right beside the computer. Helps students with visual impairments.</p>
<p>Wireless speakers</p>		<p>http://www.hamacher.com/publish/72806.asp</p>	<p>Allows the student and teacher to move the speakers so that they are closer to students with hearing impairments.</p>

Wireless microphone		http://www.1st-dragon.com/vxiblmib1.html	<p>Allows the student and teacher to be away from the computer to digitally record their voice.</p>
Scanner		http://www.google.com/products/catalog?hl=en&client=firefox-a&rls=org.mozilla:en-US:official&hs=Hg0&q=hp+scanner&um=1&ie=UTF-8&cid=4930260578580694503&sa=X&oi=product_catalog_result&resnum=4&ct=result#ps-sellers	<p>Helps scan documents to be used with the key to access so that students with visual impairments can listen to the text on the paper.</p>
Braille Printer		http://www.americanthermoform.com/braillo.htm	<p>Helps print documents in Braille for students with a visual impairment.</p>
USB port hub		http://www.tigerdirect.com/applications/SearchTools/item-details.asp?EdpNo=1187801&CatId=392	<p>Allows for easy access to multiple USB ports.</p>