

Teachers and Technology

In this survey, **assistive technology (AT)** is defined as **high-tech devices or programs that are dependent on a power source, and specially utilized for students with visual impairments**. There are different opinions regarding the use of assistive technology with students. Some people think it's a tool that should always be used, and others think other options can be as effective as assistive technology. We are interested in your honest opinion regarding assistive technology, and supports you utilize in your teaching. All responses will be anonymous and confidential.

If you already completed this survey before 2014, please consider participating again.

1. Currently, which of these best describe your job:

- Itinerant (I mostly travel to different schools to provide services to students)
- Resource (I mostly provide services in a room for students with special needs including visual impairment within a larger school setting)
- School for the Blind or for Special Education
- Other (please describe): _____

2. Approximately how many students with visual impairments are currently on your caseload?

Please indicate a specific number, NOT a range: _____

3. How many years have you been working with students with visual impairments?

Please indicate a specific number, NOT a range: _____

4. Approximately how many other TVIs (not including yourself) do you know of in your district or school for the blind?

Please indicate a specific number, NOT a range: _____

5. In the school district(s) where you teach, what kind of tech support is available? Please check all that apply:

- None
- General tech person/people who help all school staff and equipment for all students
- Special Education tech person/people who help all special education staff and equipment for students with disabilities
- Tech person(s) who **only** help staff who work with students with visual impairments, e.g., TVIs, O&Ms, transcribers
- Other: _____

6. What type of training, if any, in assistive technology did you receive in your teacher preparation program?

- None
- I don't remember
- An intensive AT course lasting less than one semester
- 1 semester AT course
- 2 semester AT courses
- Other: _____

7. In which country do you teach?

United States of America

Canada

In the remainder of this survey, a scenario will be presented followed by several questions about the scenario. Please read each scenario, and choose the answers that best describe what you would do in each situation in your current teaching setting. If you can relate to any of the scenarios, try to remember what you did in that situation. Please select **only one response per question**.

Scenario 1:

Imagine you have a high school student in a resource room with teachers who use several handouts a day. Some of the handouts are printed from a website, and others are created by the teacher on the computer. This student has low vision and cannot see regular print size. How would you work with the teacher to provide the handouts in a way the student could access?

8. If the student was **not** already using technology during the school day, how would you proceed?
(Please only check **1 BOX** from this section)

I would get the handouts in advance from the teacher to enlarge on a copier, or assign a reader or paraprofessional because

- It takes too much time and effort to find a technology solution in this situation.
- I don't know how technology could help the student read the printed handouts.

I would use a CCTV or computer program to help the student read the handouts because

- I was told or have heard this is a good way to access print handouts.
- It is how I have accessed print handouts before.

I would use a CCTV or computer program, and independently search for alternative technology if this solution didn't meet the student's needs. If I required additional input to make a decision, I would consult

- Various colleagues or other resources, but I'm not confident they would have good suggestions.
- Specific colleagues or resources I know will have good suggestions.

9. If you decided a CCTV was necessary and appropriate for the student, but this device was **not available** how would you proceed?

(Please only check **1 BOX** from this section)

I would get the handouts in advance from the teacher to enlarge on a copier, or assign a reader or paraprofessional, because asking the district to pay for the CCTV

- Would take too much time and effort.
- Is something I am not sure the district would agree to, and I don't want to use my own money.

I would ask the district to pay for the CCTV, and if they weren't willing, I would

- Fall back to enlarging the handouts on a copier, or assigning a reader or paraprofessional.
- Lobby the district, local community, or parents to buy the CCTV for my student.

I would lobby the district to buy the CCTV, and if it didn't work I would

- Look for federal or state funding sources.
- Contact federal or state funding sources, and/or specific people inside or outside my district.

10. If a portable CCTV was **available**, how would you proceed?

(Please only check **1 BOX** from this section)

I would continue enlarging the handouts on a copier, or assigning a reader or paraprofessional because

- It would take too much time and effort for me to learn to use the portable CCTV.
- I don't currently know how to use a portable CCTV to view and enlarge the handouts.

I would use the portable CCTV with help, but only if

- Someone else (e.g., a colleague) set it up and helped me whenever I used it.
- I had directions to follow, and/or was given one-on-one training.

I would use the portable CCTV after training or reading a manual, and to troubleshoot problems I would

- Consult the manual or ask a colleague.
- Consult the manual or ask a colleague, and then ask someone I have in mind who is an expert.

11. If a laptop with screen magnification software was **available with support**, how would you proceed?

(Please only check **1 BOX** from this section)

I would continue enlarging all handouts on a copier, or assigning a reader or paraprofessional because

- Using the laptop would distract from other learning goals.
- I do not currently integrate use of a laptop into lesson plans with this student.

I might use the laptop for appropriate handouts,

- But only for handouts I wasn't able to enlarge on a copier (i.e., I did not get them ahead of time).
- Whether or not I'm able to enlarge them on a copier.

I would use the laptop for accessing digital versions of all appropriate handouts. I would also use the laptop for:

- Other print materials, but I don't have any lessons in mind.
- A number of other specific lessons and activities.

12. Imagine this high schooler is new on your caseload, and he typically uses an iPad to view most classroom handouts. If you were **unfamiliar** with how to use the iPad to access handouts, how would you proceed?

(Please only check **1 BOX** from this section)

I would work with the device, and I would tap into these supports:

- A regular network of resources, such as manuals, cheat sheets, web sources, and/or "techie" colleagues who have helped me in the past.
- Help from a colleague who doesn't necessarily know how to use the iPad in this capacity, but could provide suggestions.
- Contacting my supervisor, and following his/her recommendations.

I might not work directly with the device, instead I would

- Rely on a colleague or the student to address iPad issues, so I could focus on the non-technology portion of lessons.
- Ask to swap the student off my caseload, and in the meantime rely on hard copy braille or large print books, a paraprofessional, or assign a peer buddy.

13. How would you feel about using electronic versions of the handouts?

(Please only check **1 BOX** from this section)

I would consider using electronic versions of appropriate handouts,

- And I feel confident in how to do this.
- But I feel unsure about how to do this.

I would rather enlarge handouts using a copier, or assign a reader or a paraprofessional, because

- I need more information to decide if using technology to access handouts is appropriate for this situation.
- Based on my experiences, I know that electronic versions of the handouts will help the student learn more effectively.
- Teaching a technology would take time better spent working with a reader or previewing the large-print paper copy.

14. Imagine your school district is implementing a new mandate to introduce iPads to all students in this high school. How would you meet the demands of the mandate for this student with low vision?

(Please only check **1 BOX** from this section)

I would attend all mandatory district staff meetings, and

- Volunteer to lead workshops and discussions, or distribute “cheat sheets” about using the iPad with students who are visually impaired.
- Search for and attend workshops and discussions about using iPads with students who are visually impaired.
- Attend no other, non-mandatory workshops.

I don't think use of an iPad is relevant to my student with low vision, and I would

- Only attend mandatory district staff meetings, if they were conveniently located and scheduled.
- Not attend any meetings, because it would take time away from other teaching priorities.

Scenario 2:

Imagine you have a third grade student in a general education class. This class completes projects in a weekly computer lab, and optional computer time in the classroom. The student has low vision, and has extreme difficulty seeing what's on the computer screen using a standard monitor with conventional settings. What would you do to help this student access the computer?

15. If the student was **not** already using assistive or specialized technology to view the computer screen, how would you proceed?

(Please only check **1 BOX** from this section)

I would have the student work with a peer or paraprofessional who could read the screen because

- It takes too much time and effort to find another technology solution in this situation.
- I don't know how additional technology could help the student access the computer independently.

I might use a screen magnification program (e.g., Windows Magnifier, Zoom, MAGic, or ZoomText). I would choose these tools because

- I was told or have heard this software is good for magnifying computer screens.
- I have used this software for magnifying a computer screen before.

I would use a screen magnification program, and independently search for alternative technology if the current technology wasn't meeting the student's needs. If I required additional input to make a decision, I would consult

- Various colleagues or other resources, but I'm not confident they would have good suggestions.
- Specific colleagues or resources I know will have good suggestions.

16. If you decided an advanced screen magnification program such as MAGic or ZoomText was necessary and appropriate for the student, but this software was **not available** how would you proceed?

(Please only check **1 BOX** from this section)

I would have the student work with a peer or paraprofessional who could read the screen, because asking the district to pay for the software

- Would take too much time and effort.
- Is something I am not sure the district would agree to, and I don't want to use my own money.

I would ask the district to pay for the software, and if they weren't willing, I would

- Fall back to having the student work with a peer or paraprofessional who could read the screen.
- Lobby the district, local community, or parents to buy the software for my student.

I would lobby the district to buy the software, and if it didn't work I would

- Look for federal or state funding sources.
- Contact federal or state funding sources, and/or specific people inside or outside my district.

17. If an advanced screen magnification program such as MAGic or ZoomText was **available**, how would you proceed?

(Please only check **1 BOX** from this section)

I would have the student work with a peer or paraprofessional who could read the screen, because

- It would take too much time and effort for me to learn how to use MAGic or Zoomtext.
- I don't currently know how to use these programs.

I might use MAGic or Zoomtext, but only if

- Someone else (e.g., a colleague) set it up and helped me whenever I used it.
- I had directions to follow and/or was given one-on-one training.

I would use MAGic or Zoomtext after training or reading a manual, and to troubleshoot problems I would

- Consult the manual or a colleague.
- Consult the manual or a colleague, and then ask someone I have in mind who is an expert.

18. If MAGic or Zoomtext was appropriate and **available with support**, how would you proceed?

(Please only check **1 BOX** from this section)

I would have the student work with a peer or paraprofessional who could read the screen, because

- Using software to magnify the screen would distract from other learning goals.
- I do not currently integrate MAGic or ZoomText into lesson plans with this student.

I might use MAGic or ZoomText, but only for

- Reading the computer screen during the weekly computer lab to complete projects.
- Viewing the computer during lab and, if needed, to complete projects in the classroom.

I would use MAGic or ZoomText to access computers in both lab and the classroom, and

- I'd like to use the screen magnification software with materials other than projects, but I don't have any materials in mind.
- I have specific ideas about other activities that could be accessed using MAGic or ZoomText.

19. Imagine this middle school student is new on your caseload, and she currently uses ZoomText. If you were **unfamiliar** with this particular program, how would you proceed?

(Please only check **1 BOX** from this section)

I would work with the program. I would utilize these supports:

- A regular network of network of resources, such as manuals, cheat sheets, web sources, and/or "techie" colleagues, who have helped me in the past.
- Help from a colleague, who doesn't necessarily know the program, but could provide suggestions.
- Contacting my supervisor, and following his/her recommendations.

I would **not** work with the program, instead I would

- Rely on a colleague or the student to manage use of the program, so I could focus on the non-technology portion of lessons.
- Ask to swap the student off my caseload, and in the meantime rely on a hand held magnifier, a paraprofessional, or assign a peer buddy.

20. How do you feel about using a computer screen magnification program such as MAGic or Zoomtext?
(Please only check **1 BOX** from this section)

I would consider using a computer screen magnification program. I would feel

- Confident in how to do this.
- Unsure about how to do this.

I would rather have the student work with a peer or paraprofessional who could read the screen, or encourage the student to use a handheld magnifier. These strategies are preferred because

- I need more information to decide if using a screen magnification program to view the computer screen is appropriate.
- Based on my experiences, I know that technology screen magnification program is not necessarily essential to student learning.
- Teaching the screen magnification program will use up time better spent scaffolding interactions with a peer who can work with the student, or teaching the student how to use a handheld magnifier.

21. Imagine your school district is implementing a new mandate to introduce a keyboarding program in computer labs for all students. How would you meet the demands of the mandate with this student who cannot see a standard computer monitor?

(Please only check **1 BOX** from this section)

I would attend all mandatory district staff meetings, as well as

- Volunteer to lead workshops and discussions, or distribute “cheat sheets” about making keyboarding lessons accessible to students with visual impairments
- Search for and attend workshops and discussions about keyboarding for students who are visually impaired.
- Attend no other, non-mandatory workshops.

I don't think use of a keyboarding program is relevant to my student who cannot see the computer screen. Since other standards are more relevant to my lesson planning, I would

- Only attend mandatory district staff meetings, if they were conveniently located and scheduled.
- Not attend any meetings, because it would take time away from other teaching priorities.

Scenario 3:

The school year just began, and you have a middle school student taking several general education classes. This student needs textbooks for each class. The student has no vision, and is unable to access print. Unfortunately, it will take 6 to 8 weeks for the braille copy of the book to arrive the school.

22. If the student is **not** already using technology for reading books, how would you proceed?
(Please only check **1 BOX** from this section) -

I would have portions of the books brailled for the student until the braille textbooks arrive. I would use these methods because

- It takes too much time and effort to find a technology solution in this situation.
- I don't know how technology could be used by the student to read the textbooks.

I might use digital versions of the textbooks. I would select a device or software program because

- I was told or have heard it was good for reading books.
- I have used it for reading books before.

I would use digital versions of the textbooks, and independently search for alternative technology if the currently available technology wasn't meeting the student's needs. If I required additional input to make a decision, I would consult

- Various colleagues or other resources, but I'm not confident they would have good suggestions.
- Specific colleagues or resources I know will have good suggestions.

23. If you decided a BookPort Plus was necessary and appropriate for the student, but this device was **not available** how would you proceed?

(Please only check **1 BOX** from this section)

I would have portions of the books brailled for the student until the braille textbooks arrive, because asking the district to pay for the BookPort Plus

- Would take too much time and effort.
- Is something I am not sure the district would agree to, and I don't want to use my own money.

I would ask the district to pay for the BookPort Plus, and if they weren't willing, I would

- Fall back to having portions of the books brailled.
- Lobby the district, local community, or parents to buy the BookPort Plus for my student.

I would lobby the district to buy the BookPort Plus, and if it didn't work I would

- Look for federal or state funding sources.
- Contact federal or state funding sources, and/or specific people inside or outside my district.

24. If a BrailleNote was **available**, how would you proceed?

(Please only check **1 BOX** from this section)

I would braille for the student until the braille textbooks arrive. I would use this strategy because

- It would take too much time and effort for me to learn to use the BrailleNote.
- I don't currently know how to use the BrailleNote.

I might use the BrailleNote, but only if

- Someone else (e.g., a colleague) set it up and helped me whenever I used it.
- I had directions to follow and/or was given one-on-one training.

I would use the BrailleNote after training or reading the manual, and to troubleshoot problems I would

- Use the manual or ask a colleague.
- Use the manual or ask a colleague, and then ask someone I have in mind who is an expert.

25. If the BrailleNote was an appropriate device for the student and **available with support**, how would you proceed?

(Please only check **1 BOX** from this section)

I would braille for the student until the braille textbooks arrive. I would use this strategy because

- Technology distracts from other learning goals.
- I do not currently integrate the BrailleNote into my lesson plans.

I might use the BrailleNote, but only for

- Reading textbooks unavailable in braille.
- Reading all textbooks, whether or not they're available in braille.

I would use the BrailleNote for reading all textbooks, and I'd like to use the BrailleNote to access materials other than textbooks

- But I don't have any materials in mind.
- And I have specific ideas about materials that could be accessed on the BrailleNote.

26. Imagine this middle school student is new to your caseload, and he currently uses a BrailleNote. If you were **unfamiliar** with this particular device, how would you proceed?

(Please only check **1 BOX** from this section)

I would work with the BrailleNote. I would utilize these supports:

- A regular network of resources, including manuals, cheat sheets, web sources, and "techie" colleagues, who have helped me in the past.
- Help from a colleague who doesn't necessarily know the device, but could provide suggestions.
- Contacting my supervisor, and following his/her recommendations.

I would **not** work with the device, instead I would

- Rely on a colleague or the student to manage the BrailleNote, so I could focus on the non-technology portion of lessons.
- Ask to swap the student off my caseload, and in the meantime rely on hard copy braille or large print books, a paraprofessional, or assign a peer buddy.

27. How do you feel about using electronic versions of textbooks (such as textbooks on a BrailleNote, BookPort Plus, or iPad) with students accessing the academic curriculum?

(Please only check **1 BOX** from this section)

I would consider using electronic versions of the textbooks, I would feel

- Confident in how to do this.
- Unsure about how to do this.

I would rather braille portions of the book as assigned or assign a reader. These strategies are preferred because,

- I need more information to decide if using technology to access textbooks is appropriate.
- Based on my experiences, I am confident digital textbooks are not essential to student learning
- Teaching the technology will use up time better spent working with a reader or previewing braille.

28. Imagine your school district is implementing a new mandate to use eTextbooks with all visually impaired students. How would you meet the demands of the mandate with this student who is blind?

(Please only check **1 BOX** from this section)

I would attend all mandatory district staff meetings, as well as

- Volunteer to lead workshops and discussions, or distribute “cheat sheets” about using eTextbooks with students who are visually impaired.
- Search for and attend workshops and discussions about using eTextbooks.
- Attend no other, non-mandatory workshops.

I don't think use of eTextbooks is relevant to my student who is blind. Since other standards are more relevant to my lesson planning, I would

- Only attend mandatory district staff meetings, if they were conveniently located and scheduled.
- Not attend any meetings, because it would take time away from other teaching priorities.

Scenario 4:

Imagine a new student transferred to a general education middle school in your school district mid-year. The student is totally blind and on grade level. The student's homeroom class goes to the library once a week to learn how to research information on the internet. All of the computers are Windows computers, with standard size monitors set to conventional settings. What do you do to help the student participate in this library research activity?

29. If the student is **not** already using technology to conduct research, how would you proceed?

(Please only check **1 BOX** from this section)

I would assign a peer buddy or paraprofessional to work with the student, encourage the student to utilize references available in braille, or contact resources by telephone. I would use these methods because

- It takes too much time and effort to find a technology solution in this situation.
- I don't know how technology could be used by the student to carry out online research.

I would install a screen-reading software (e.g., JAWS, System Access To Go) on one of the library computers, or have the student use a BrailleNote. I would choose these tools because

- I was told or have heard this is good for reading computer screens.
- I have used it for reading computer screens before.

I would use a screen reading software or BrailleNote, and independently search for alternative technology if the currently available technology wasn't meeting the student's needs. If I required additional input to make a decision, I would consult

- Various colleagues or other resources, but I'm not confident they would have good suggestions.
- Specific colleagues or resources I know will have good suggestions.

30. If you decided an advanced screen reading program such as JAWS was necessary and appropriate for the student, but this software was **not available** how would you proceed?

(Please only check **1 BOX** from this section)

I would have the student work with a peer or paraprofessional who could read the screen, encourage the student to utilize references available in braille, or contact resources by telephone because asking the district to pay for the program

- Would take too much time and effort.
- Is something I am not sure the district would agree to, and I don't want to use my own money.

I would ask the district to pay for the program, and if they weren't willing, I would

- Fall back to having the student work with a peer or paraprofessional who could read the screen.
- Lobby the district, local community, or parents to buy the program for my student.

I would lobby the district to buy the software, and if it didn't work I would

- Look for federal or state funding sources.
- Contact federal or state funding sources, and/or specific people inside or outside my district.

31. If an advanced screen reading program such as JAWS was **available**, how would you proceed?

(Please only check **1 BOX** from this section)

I would have the student work with a peer or paraprofessional who could read the screen, encourage the student to utilize references available in braille, or contact resources by telephone. I would utilize these tools because

- It would take too much time and effort for me to learn how to use JAWS.
- I don't currently know how to use this program.

I might use JAWS, but only if

- Someone else (e.g., a colleague) set it up and helped me whenever I used it.
- I had directions to follow and/or was given one-on-one training.

I would use JAWS after training or reading a manual, and to troubleshoot problems I would

- Consult the manual or a colleague.
- Consult the manual or a colleague, and then ask someone I have in mind who is an expert.

32. If JAWS was appropriate and **available with support**, how would you proceed?

(Please only check **1 BOX** from this section)

I would have the student work with a peer or paraprofessional who could read the screen, encourage the student to utilize references available in braille, or contact resources by telephone. These methods are appropriate because

- Using software to read the screen would distract from other learning goals.
- I do not currently integrate JAWS into lesson plans with this student.

I might use JAWS, but only for

- Accessing the computer in the library to learn how to research information.
- Computer-based research in the library and, if needed, for further computer-based research in the classroom.

I would use JAWS to access computers in both lab and the classroom. I would also use JAWS for

- Other computer activities, but I don't have any lessons in mind.
- A specific number of other lessons and activities.

33. Imagine this middle school student used JAWS at her previous school. If you were **unfamiliar** with this particular program, how would you proceed?

(Please only check **1 BOX** from this section)

I would work with the program. I would utilize these supports:

- A regular network of resources, such as manuals, cheat sheets, web sources, and/or “techie” colleagues, who have helped me in the past.
- Help from a colleague who doesn’t necessarily know JAWS, but could provide suggestions.
- Contacting my supervisor, and following his/her recommendations.

I would **not** work with the program, instead I would

- Rely on a colleague or the student to manage use of the program, so I could focus on the non-technology portion of lessons.
- Ask to swap the student off my caseload, and in the meantime rely on a paraprofessional, peer buddy, brailled reference materials, or resources over the phone.

34. How do you feel about using a screen reading program such as JAWS or VoiceOver?

(Please only check **1 BOX** from this section)

I would consider using a screen reading program. I would feel

- Confident in how to do this.
- Unsure about how to do this.

I would rather have the student work with a peer or paraprofessional who could read the screen, encourage the student to utilize references available in braille, or contact resources by telephone. These strategies are preferred because

- I need more information to decide if using a screen-reading program to access the computer and online information is appropriate.
- Based on my experiences, I know that a screen reading program is not essential to student learning.
- Teaching how to use a screen-reading program will use up time better spent scaffolding interactions with a peer who can work with the student, reinforcing braille reading skills, or teaching the student how to maximize phone resources.

35. Imagine your school district is implementing a standards-based core curriculum for all students to learn how to carry out online research. How would you address the demands of this mandate to meet state standards with this student who cannot see a standard computer monitor?

(Please only check **1 BOX** from this section)

I would attend all mandatory district staff meetings, as well as

- Volunteer to lead workshops and discussions, or distribute “cheat sheets” about using a screen reading program with students with visual impairments
- Search for and attend workshops and discussions on screen reading programs for students who are visually impaired.
- Attend no other, non-mandatory workshops.

I don’t think use of a screen reading program is necessarily relevant to my student who cannot see the computer screen. Since other standards are more relevant to my lesson planning, I would

- Attend only mandatory district staff meetings, if they were conveniently located and scheduled.
- Not attend any meetings, because it would take time away from other teaching priorities.

For the last two questions below, please answer generally, not in response to one of the specific scenarios.

36. Please describe a typical lesson with an academically oriented student. Please explain how you utilize high tech assistive technology, or low-tech solutions.

37. If you are not currently using assistive technology with students, what resources or changes would be necessary to change your teaching practice to include use of assistive technology? If you **do** use assistive technology, what supports/resources enable you to use assistive technology with students?