|  |  |
| --- | --- |
| TSBVILogoScalable | Texas School for the Blind and Visually Impaired  Outreach Programs  [www.tsbvi.edu](http://www.tsbvi.edu) | 512.454.8631 | 1100 W. 45th St. | Austin, TX 78756 |

Coffee Hour – September 10, 2020

**I Can See More with My Optical Devices  
Magnifiers to See Things Up Close & Monoculars to See Things Far(ther) Away**

Presented by Cindy Bachofer, PhD, CLVT  
TSBVI Low Vision Consultant

# I’m glad you are here!



Figure : Photograph of Dr. Cindy Bachofer

* Low Vision Consultant at the Texas School for the Blind & Visually Impaired
* My work is primarily with students with low vision-use of tools, self-identity, psychosocial needs
* Student-teacher team support on campus, trainings with Outreach Programs and select classes in Short-Term Programs

# Outline of Presentation

* A place for optical devices in a screen-rich world
* What, who, why: the tools, the users, the benefits
* How: an overview of device instruction
* Consideration of roadblocks and solutions to use

# Vision Tools of Today



Figure : Photograph of Jordie LaForge from Star Trek The Next Generation, wearing his vision visor.   
Source: Paramount Pictures



Figure : An iPhone   
Source: Apple

# Problems with the Screen View

* Recharging necessary for frequent camera use
* Limits with expanding picture for detail view (over-pixelate image)
* Glare on screen with outdoor viewing
* Extended screen time concerns (e.g., eye strain, sleep cycle issues)
* No-phone zone at school, work

# Law of the over-reliance on one tool for all tasks

“If all you have is a hammer, everything looks like a nail.”

# Starter Tools



Figure : A magnifier sitting on a page of text



Figure : A monocular

# What: Magnifiers & Monoculars/Telescopes

http://www.2020mag.com/elt/20100815/images/EschenbachRectangular-Lens.jpg

Figure : A rectangular magnifier

http://www.beyondsight.com/images/products/magnification/handheld--pocket-magnifiers/nonilluminated/Eschenbach_Pocket_Round_6x_Blackl.jpg

Figure : A round flip-out magnifier



Figure : A black monocular telescope



Figure : A grey Carson telescope

# Skills to Access Visual Information



Figure : A microwave oven on the left. An arrow points from it to the picture on the right of a hand using a keypad on a printer.



Figure : On the left a picture of school-age wrestlers during a match. An arrow points right to a picture of a street performer breakdancing in front of a sign that reads "Street Performer Series."

# Access to What’s Meaningful



Figure : A young person at a city crosswalk. They use a monocular to look across the street.



Figure : A young person looks across a grassy yard on a school campus using a monocular.

# Motivation

* High expectations
* High interest
* High success



Figure : Two students use monoculars to read price tags in the produce section of a supermarket.

# What Do You Look At?

* Through a monocular
* Through a telescope

# The Rule on Shape and Size

* Magnifiers
* Bigger lens is lower power with lower magnification
* Smaller lens is higher power with more magnification
* Telescopes
* A shorter scope is lower power with lower magnification
* A taller scope is higher power with lower magnification

# Matching the user to the device

* Power, distance, and size
* What’s my power? (3x/12D mag; 6x16 scope, 9° field)
* How far away and how big is my target?
* Concepts of magnification
* Relationship between the device lens and field of view (field of view = ease of use)
* Importance of work distance (E**↔**L**↔**M)
* Eye to lens
* Lens to Material
* More light or less light



Figure : A young person uses a magnifier to read the side of a box of frozen food.



Figure : A young person uses a magnifier to read the side of a can of grape juice concentrate.



Figure : A student uses a magnifier to look at jewelry in a display case in a store.



Figure : A student uses a magnifier to read a fast food menu.



Figure : A person looks at an insect through a lighted magnifier.



Figure : A person looks at buttons on a television remote with a magnifier.



Figure : A young person looks at the controls on a clothes dryer using a magnifier.

# Strategies to Practice

* Magnifiers
* Find the sweet spot of focus
* Stabilize your holding hand
* Use a line guide, sticky note to mark your spot
* Build stamina with daily practice, specific tasks
* Keep a record (reading time/speed, variety of uses)

How are you doing? Is it working?



Figure : A young person looks at a life-size statue of a dinosaur through a monocular.



Figure : A young person watches live chickens in a farmyard through a monocular.



Figure : Five young people look over a hedge using telescopes.



Figure : A young person looks at shellfish in a bin using a telescope.

# Strategies to Practice

* Telescopes
* Find an object through the scope (big, bold)
* Stabilize your holding hand for a steady view
* Set focus by changing the barrel from short to tall
* Stay fixed on an object or follow a moving one

How are you doing? Is it working?

# Roadblocks to Device Use

* Conscious of peer reactions (perceived, direct)
* Device use doesn’t equalize things
* Doesn’t get “benefit” of device, lack of visual curiosity
* Lack of support to build use as habit
* Low expectations, limited accountability
* Training issues (e.g., inconsistent, unmotivated)

# Roadblocks: What makes it hard?

* Building the **skill**-Practice, practice, practice
* Building the **confidence** (Is someone staring at me?)
* Building the **habit** (expectation, motivation to use)

# Making My Wish List

* New ideas for cool things I want to see…
  + \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_
  + \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_
* New ideas for places I want to go to try my device…
  + \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_
  + \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_
* New ideas for challenges, goals I want to set…
  + \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_
  + \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Capturing Attention!

Contact [Cindy Bachofer](mailto:bachoferc@tsbvi.edu).

Thank you for joining our Coffee Hour and sharing your ideas.