



# Texas School for the Blind and Visually Impaired

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## Accessing Self-Determination Through a Creative Process

By Kathi Garza and Chrissy Cowan

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For a student with low vision, navigating various environments and social situations can be difficult because he/she is not completely sighted but also not completely without vision. Teachers, peers, and family members might be confused when, at times, the student appears to be able to complete one task without any support, but then needs significant accommodations to complete another task. Eye fatigue, visual stamina, preferred optical devices or seating, and travel skills are just a few things that can vary by day, or even by class period, for a student with low vision. Additionally, seeking adult support when a student's needs aren't being met can be difficult. Peer situations can be challenging as well because the student lacks the language or self-determination to answer questions or stand up for themselves when peers ask questions about or "test" the student's vision, tease the student, or handle their devices without permission.

All of these challenges were taken into consideration when elementary-aged students with low vision attended a week-long Short-Term Program (STP) class at Texas School for the Blind and Visually Impaired (TSBVI). The goal for this class was for the students to build self-determination by creating an informative product to share with adults and peers in their school and community regarding their specific needs as an individual with a visual impairment. Self-determination includes choice-making, decision-making, problem-solving, personal advocacy, assertiveness, and goal setting. Students with visual impairment often have fewer opportunities to develop and practice the specific skills that lead to self-determination. People who know and value themselves and have self-determination skills can become effective advocates for themselves and therefore have more control over their lives.

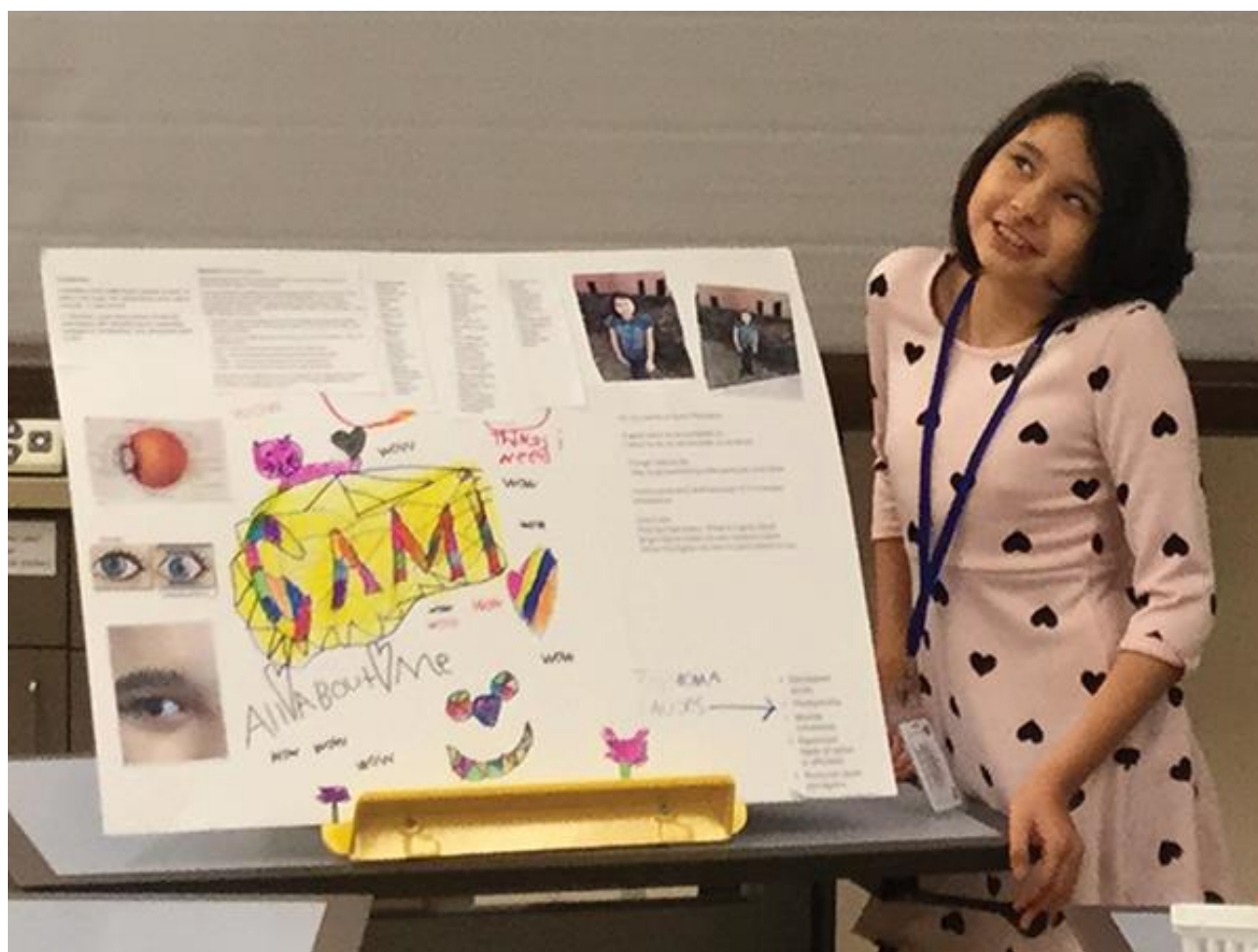
Students who attend the STP class typically need guidance before they are ready to fully explain their visual preferences. The following class objectives translated into activities that contributed to a self-discovery process which helped the students communicate about their visual needs:

- Identify parts of the eye, visual impairment, and etiology-specific health concerns
- Discuss the impact of impairment on visual performance in the classroom and home environments
- Generate a list of low vision specific tools and strategies that can be used to support visual access to instructional programming

The concept of creating a product was chosen because it is an informal and creative way to express information about the student's visual impairment and personal preferences. A product can be

customized with relevant information for the intended audience: parent/caregiver, teacher, peer, or potential employer. Possible product formats include:

- Collage or Poster
- Informative Business Card
- Brochure
- Picture Book
- PowerPoint or Google Slides
- Song or Poem
- YouTube Video
- Documentary (e.g., “A Day in the Life”)



*Figure 1 Cameron proudly shares information about her eye condition using the poster she created as a guide.*

When teachers create a product with their student, mastery of technology is not the focus. Teacher support with typing, researching, and using desired programs or applications may be necessary, but students should be responsible for designing and selecting the appropriate information to include in their products. It's not necessary for the student to commit to a specific product format before the process begins. A product format will emerge as students explore feelings about the constant need for self-advocacy and how they are perceived by others.

The STP class objectives and activities detailed in this article can easily be replicated by itinerant TVIs with a single student over an extended period of time. This allows the TVI and student time to individualize the activities and develop specific skills needed by the student.

### Eye Condition

Learning about the eye and their specific eye condition can support students in advocating for visual or access needs. During class, students participated in the following activities to help improve their understanding of how the eye works.

- Model Eye: Students used common objects to represent each part of the eye and read a script that contained information about the function of each part. A favorite was the use of gelatin to represent the vitreous humor.
- The Visual System: Using diagrams and a video from the National Eye Institute, students reviewed the name and function of each part of the eye and participated in a discussion on the process of seeing. Students were later tasked with ordering each step in the process.
- Edible Eyeball: Using the information they had gained throughout the week and some common food items such as twizzlers, campfire marshmallows, and gummy lifesavers, students created an Edible Eyeball model to enjoy for a snack.



*Figure 2 Front view of edible eyeball showing a green gummy Life Saver iris attached.*



*Figure 3 Back view of edible eyeball showing a sour belt retina with a licorice optic nerve sticking out.*

Students also had the opportunity to research their visual impairment and ask any specific questions they might have. They often reported that talking about their visual impairment is “annoying,” but in many cases, students lacked the knowledge and language to explain their condition and how it relates to visual functioning in terms that peers and teachers can understand. The information about their eye condition was used as a component of the final product.

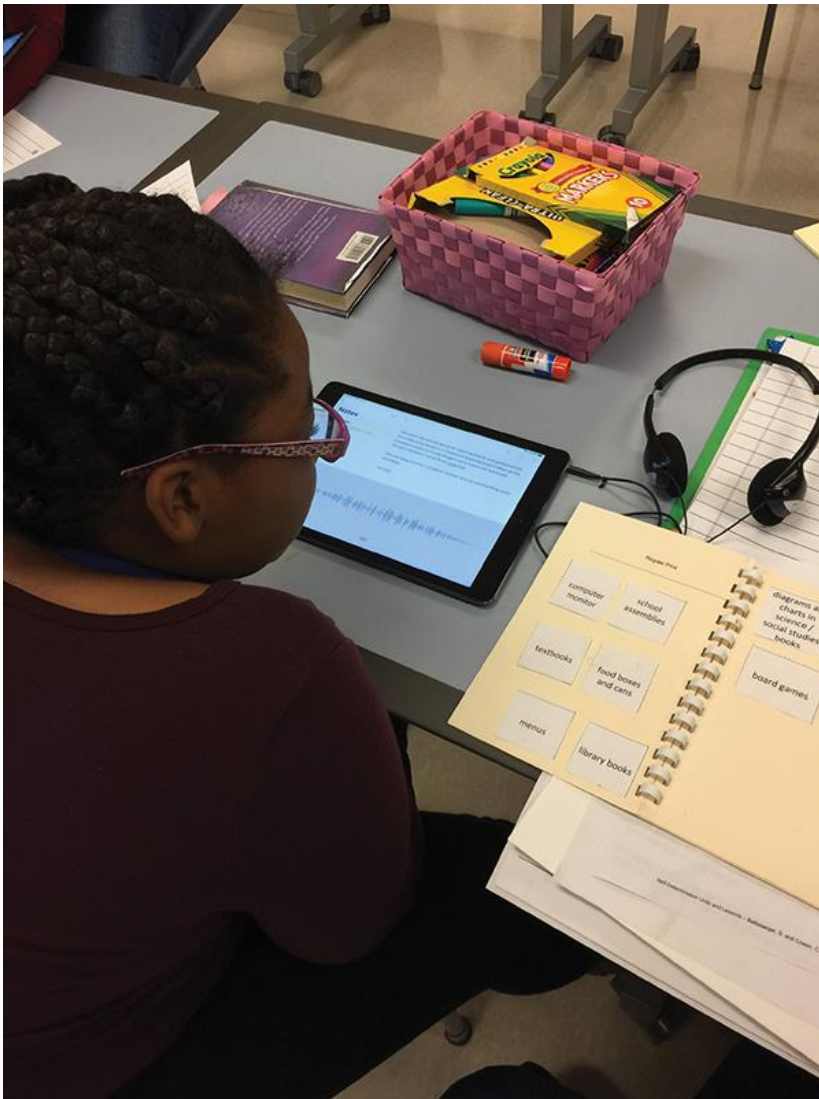
### **Impact of Impairment on Visual Performance**

Before a student can create a product that communicates visual needs and preferences, they have to understand the impact of their vision on daily tasks across environments. The following activities were used to clarify the impact of impairment on visual performance and to develop self-determination and problem-solving skills to use when facing challenges in the home, school, or community environment. Activities to support this objective included:

- **Creating a Current Access Book:** To begin this activity, students generated a web of visual tasks required in home, school, and community environments. Some examples of visual tasks included reading soap labels in the shower, playing video games, reading the board, completing homework, seeing math, reading websites at school, and identifying plants and animals in nature.







*Figure 5 This When I Can't See poster demonstrates how students navigated through the problem solving process as it related to visual access*

## Tools and Strategies

As they move through school, students with low vision may have experimented with an assortment of technology and strategies for access that may or may not work for them. Another objective of this class was to assist them in creating a list of practical low vision specific tools and strategies that can be used to support visual access and to communicate preferences. The following activities center around the topic of tools for access, as well as exploring strategies for improved performance and clarifying their visual needs for others.

- **Exploring Assistive Technology:** Completing an assistive technology (AT) survey is an activity that helps clarify current strategies for access. It helps students consider challenges presented by some tasks and the tools used to navigate them. The Google Forms application was used to create a simple digital survey with questions about how vision affects the student's access to information at home, in school, and in the community (a copy of this survey is available on the website version of this article). The survey required students to select examples of tasks for which they use AT. In addition, students were given a list of different types of AT they might use

and asked to select all that apply. Examples included low tech (e.g., bold-lined paper and flair pens), middle tech (e.g., optical devices, talking or large print calculators, and adapted science equipment), and high tech (e.g., video magnifiers, tablets, smartphones, and screen magnification software).

- **Accessibility and Universal Design:** As students seek to educate others about their visual needs, an important concept for them to understand is the role that universal design plays in accessibility. For example, lighting, signage, font, contrast, marked steps, and positioning of furniture and materials are all elements of universal design for students with low vision. An activity was created that included a discussion about design, what it means, and the people it benefits. The class discussed universal design—that is, designing things so that most people can use them, and how someone with a disability accesses or benefits from something that is designed for increased access.
- **When I Can't See. . .:** This problem-solving activity was designed to help students identify reasons why they hesitate to speak up when they cannot see in class or other locations. The activity was introduced by asking: “Are there times when you are asked to complete an assignment or do something that you can't see clearly? Can you give me some examples of these things?” Some student examples included:
  - Drawing an object viewed outside the window
  - Reading a story from the board and answering questions within a limited amount of time.
  - Taking a timed test
  - Ordering from a menu in a restaurant
  - Finding friends in the cafeteria or playground
  - Watching an assembly

Once these examples were generated, the students were asked, “Why do you think you are hesitant to say anything about not being able to see clearly or complete the task?” Some reasons reported by students included not wanting the other kids or teachers to think they are stupid, not wanting to be teased, not wanting to get anyone in trouble, and not wanting to make the teachers frustrated by making their jobs harder. After students had the opportunity to feel heard, they began to generate a list of strategies to use to advocate for themselves. A popular solution was a combination of ideas where students would request to meet with the teacher privately and develop a secret signal to use in class to show that he/she needed some additional support.

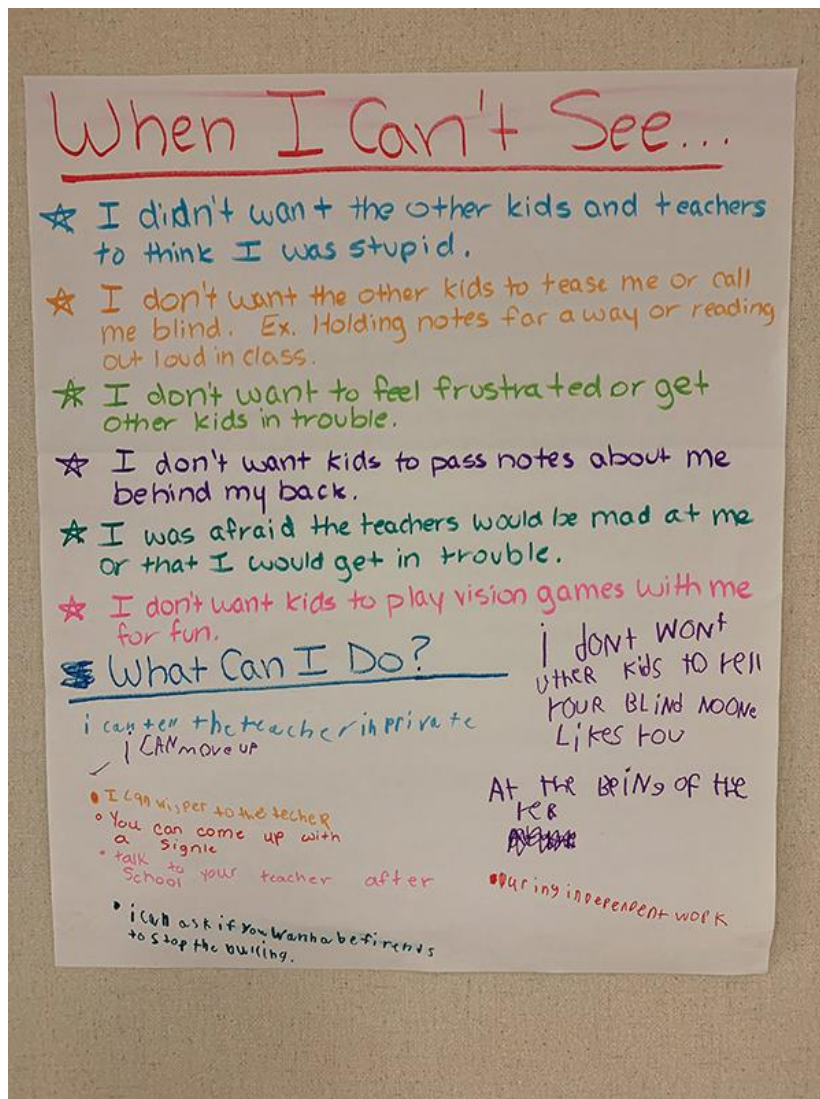


Figure 6 This When I Can't See poster demonstrates how students navigated through the problem solving process as it related to visual access.

- It Bugs Me: It is not uncommon for a student to feel annoyed by assumptions made about their vision and/or negative attention to the way they complete visual tasks. This empowerment activity was designed to encourage students to share their feelings about frustrating or uncomfortable situations they encounter. To end on a positive note, this activity required them to identify solutions so that, going forward, a student could take control over his/her own feelings and situations at home, school, and in the community. Some examples of situations that bugged students included times when:
  - kids ask lots of questions about their vision and tools
  - kids take/hide their tools without asking
  - kids play "can you see" games with them
  - people accuse them of faking their visual impairment
  - parents won't let them cross the street or use the stove

Some solutions included talking to trusted adults, talking to the class about your impairment or tools, standing up for yourself, and using "I statements."



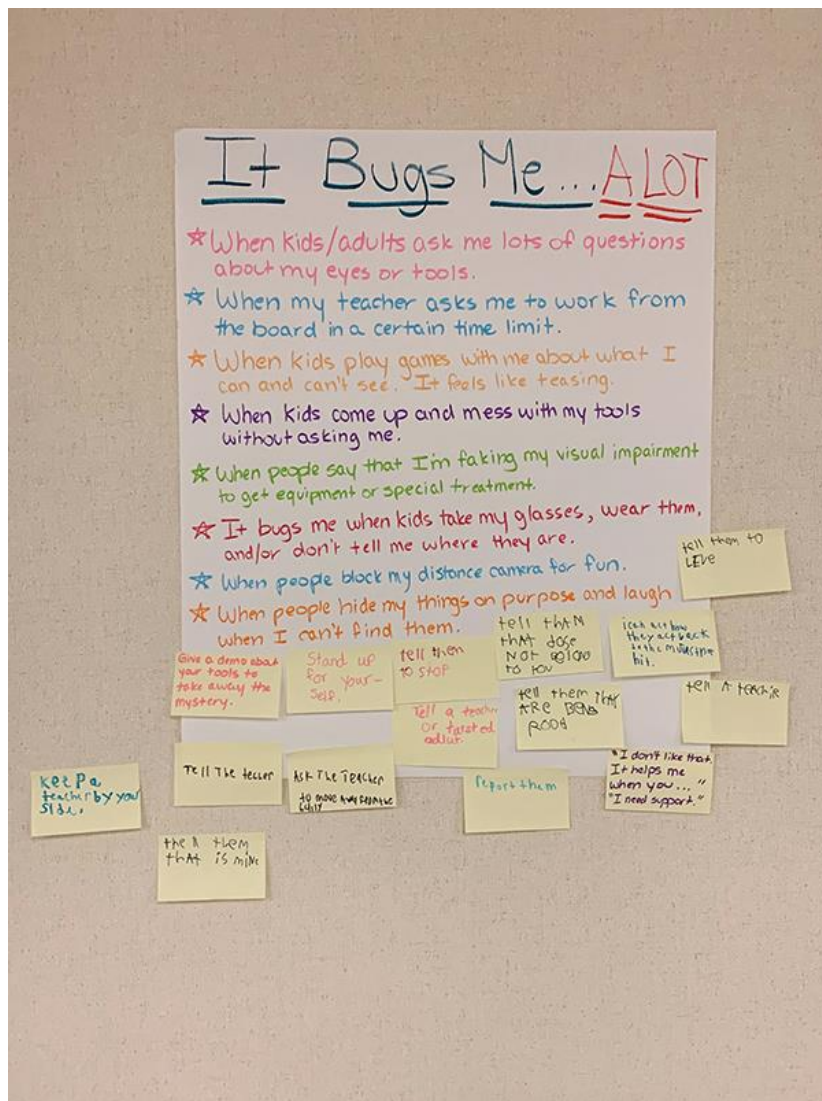


Figure 7 It Bugs Me poster with shared ideas for how to handle intrusive comments from others.

- **Life Goals:** A nice addition to the student's product is a bit of information about his/her personal goals. For this reason, a lesson was created to address this topic. During this activity, students discussed their dreams and goals. They wrote down 1-3 personal goals, then discussed how their vision may impact the process of achieving each goal, what steps they need to take first, and who may be able to help them. For example, one student wanted to be a collegiate gymnast, so she included the UCLA logo with her text about how she could achieve this goal. Another student's goal was to be a performer, so she created and performed a rap as the format for her entire product. These kinds of discussions can lend themselves to future lessons related to the access tools and strategies the student will need to achieve their life goals.

Each of these activities was designed to contribute to a comprehensive product that the student can use to communicate their challenges and preferences for visual access across environments. This product is designed to grow and change with the student throughout their years in an educational system, and even into a work environment. Before launching their product with others, students should first practice with their TVI and family. The goal is to empower the student in a fun, creative, and individualized way.

## References:

<https://www.perkinselearning.org/accessible-science/activities/edible-eyeball>