

*Author's note: This document exists as a script and written record for the sighted, specifically professor Zawlocki at the College of DuPage, to freely read through the audio file of this document and to more easily access the references/works cited page. Additionally any time a specific statement or idea is cited in text a number next to the idea will be given to let a reader know which reference was used, for example, "example quotation here" [x]". Additionally in the works cited page, sources are prefixed with a number corresponding to any in text citations, example "[x] Source". (The style of Wikipedia in text citation).*

## **Seeing Blindness by Trevor Cartwright**

### The many definitions

Individuals with Disabilities Education Act, or IDEA says, "Visual impairment including blindness means an impairment in vision that, even with correction, adversely affects a child's educational performance. The term includes both partial sight and blindness." [1], when defining blindness as one of the many categories of disabilities. While this is a great definition for educational institutions to use when determining exceptional students to be included in special education programs and the like, this does not tell a general audience too much about blindness. As a matter of fact, IDEA includes the word "blindness" in the definition, which is not super helpful to someone who does not know what it is. Luckily the government does provide some reprieve to readers in the Social Security Administration, as written in their *Meaning of blindness as defined by the law* in the Code of Federal Regulations, "We will consider you blind under the law for a period of disability and for payment of disability insurance benefits if we determine that you are statutorily blind. Statutory blindness is defined in the law as central visual acuity of 20/200 or less in the better eye with the use of correcting lens. An eye which has a limitation in the field of vision so that the widest diameter of the visual field subtends an angle no greater than 20 degrees is considered to have a central visual acuity of 20/200 or less. Your blindness must meet the duration requirement in § 404.1509. We do not consider certain felony-related and prison-related impairments, as explained in § 404.1506." [2]. Though this is much more descriptive it's almost too much and also too little at the same time. IDEA is better at addressing this but there are many forms of 'blindness' covered under both legal definitions that should be talked about in detail themselves, to understand this in plain english I much prefer the definitions given by Cleveland Clinic for the many types of blindness because blindness is not universally the same, "Partial blindness: You still have some vision. People often call this "low vision." Complete blindness: You can't see or detect light. This condition is very rare. Congenital blindness: This refers to poor vision that you are born with. The causes include inherited eye and

retinal conditions and non-inherited birth defects. Legal blindness: This is when the central vision is 20/200 in your best-seeing eye even when corrected with glass or contact lenses. Having 20/200 vision means that you have to be 10x closer or an object has to be 10x larger in order to see compared to a person with 20/20 vision. In addition, you can be legally blind if your field of vision or peripheral vision is severely reduced (less than 20 degrees). Nutritional blindness: This term describes vision loss from vitamin A deficiency. If the vitamin A deficiency continues, damage to the front surface of the eye (xerophthalmia) This type of blindness can also make it more difficult to see at night or in dim light due to retinal cells not functioning as well.”, [3]. Finally, a comprehensive explanation of the types of blind there are dictated in layman’s terms. A curious few might be thinking ‘Hey! What about color blindness or preventable blindness?’, this is something I would encourage listeners and readers to explore more on the Cleveland Clinic’s site which can be found in the works cited, they go more into detail on these ideas but I will avoid them in this project because color blindness does not really fit the category of, as Cleveland Clinic says in their article, “Blindness in the traditional sense.” [3], and preventable blindness has more to do with other health issues in what could eventually become one of the aforementioned forms of blindness. The term ‘blindness’, for the rest of this reading, will be used as a ‘catch-all’ phrase for blindness in all included forms and definitions.

### Blindness in education

Now that we understand what blindness is as it pertains to education, law, and a general understanding, we can begin to unpack what this might look like in an educational setting. It may come as no surprise after learning the definitions of blindness, the students and school alike would have to do many things very differently to accommodate the student. The Australian Disability Clearinghouse on Education and Training, or ADCET, describes how everything from instructional strategies to mobility may have to be adjusted according to the students needs. ADCET suggests many things to educators with students who are blind to best assist them. Their suggestions include primarily using electronic materials to ease accessibility, early notification of required materials (especially texts) so students can obtain audio or braille format of texts, saying which parts of a text are needed soonest and are most important as reproduction of the materials in alternate formats can take some time, focusing on verbal teaching methods specifically they state, “Verbalise what is written on the blackboard and on PowerPoints. Talk through any

calculations as they are made or procedures as they are carried out. Read any printed information and describe any charts or graphs being used.”, taking special consideration for field trips, including how to perhaps make an on-campus version of such a trip if the facility to visit would not properly accommodate a student, orienting a student to your classroom and any materials to be used such as lab equipment, giving a student alternative and supplementary materials, say an audio that provides further description to something primarily or partly visual, communicating with the student, and adjusting the lighting in your classroom as it may play a role in the students vision or simply because they may have some sensitivity to light, depending on the degree of their blindness [3]. ADCET urges educators that they must consider their student’s disability as they understand it to make these, and any other adjustments the student may need both in and outside of the classroom as it relates to their education

#### Misconceptions of blindness in the world and the realities

Blindness is frequently thought of as a debilitating and even utterly life ruining disability, while it is true that blindness does present many challenges in a world mostly designed for the sighted, it is not always what it is thought to be. One common misconception is that blindness means seeing darkness or black everywhere or inability to see at all. This is not really the case, the idea of seeing black is an effect of media portrayal of blindness, an example I can think of from my youth is the video game Minecraft, one of the many “effects” in game a player can experience is “blindness”, where the player experiences a significantly reduced range of vision caused by a sort of black fog the surrounds them. While this may work for a setting in game to provide a general experience to what blindness can be, it is not wholly accurate to real life. Blindness does not mean seeing ‘blackness’ or even nothing at all, as discussed earlier, depending on the type and definition of blindness you’re going with a blind person may actually retain some amount of vision, while those who suffer from Cleveland Clinic’s definition of complete blindness, do not don’t see only black or darkness, they do not actually see anything as a result of inability to detect light [3]. Another common misconception is that blindness prevents an individual from being able to navigate an environment independently, *Accessible Pedestrian Signals* by Billie L. Betzben and Janet Barlow describe that this may not always be the case, as they write “People who are blind or visually impaired make choices when it comes to traveling. At any given time, they can travel using a human guide, which involves holding onto someone's

arm; using a long, white cane to identify and avoid obstacles or elevation changes; using a dog guide; using special optical or electronic aids; or using no additional aid. The choice of tools depends on the extent and nature of visual impairment, personal preference, lighting, and familiarity with the area. In order to travel independently, people with visual impairments use whatever vision they have, auditory and tactual information, and any gathered knowledge of an area to keep track of their location and make travel decisions.” [5]. One final misconception is that blindness prevents the usage of technology, this is completely untrue as there are countless examples of assistive technology devices made specifically for those who are blind or otherwise have low vision such as magnification softwares and devices for both physical and digital reading or viewing, tactile displays including refreshable braille displays, audio reading softwares such as text to speech, and countless others.

#### Common issues among the blind

Although the blind are in many cases much more capable than society, especially the sighted tend to perceive and think of them, blindness still does take a toll, as the previously discussed source ADCET provides alternative teaching methods and recommendations to educators they mostly are discussed to tackle the common issues of a student who is blind. A specific suggestion they had regarding the adjustments one could make for a student who is blind is to allow additional time for reading assignments as “students with vision impairment are generally slower than other students in completing reading tasks” [3]. ADCET also describes the difficulty a student who is blind might have, for example being “unable to read their own handwriting when answering an exam question” or take their own notes, having to wait “often up to six or eight weeks” for written materials like books to be reproduced in alternative formats, generally feeling isolated, suffering chronic headaches from eyestrain which they state “may reduce considerably the study time available to these students.” [3]. There also exist plenty of problems for non-students who are blind, the World Health Organization says the common effects in adults range from “lower rates of workforce participation and productivity and higher rates of depression and anxiety” and those in the elderly being trouble getting around, higher likelihood of dangerous falls, and “early entry into nursing or care homes” [6]. One commonality among all age groups though, is social isolation.

### Support systems for the blind

Despite this world being very sighted-centric there do exist plenty of support systems for the blind, and they actually exist everywhere, ironically the sighted are often the ones to not see them. As previously discussed in the *Misconceptions of blindness in the world and the realities* section, many technologies exist specifically to assist those who are blind, on top of this there are common accessibility features added to everyday pieces of architecture, art, and tools that assist in blind usage. One such example is auditory crosswalks. living in Naperville, I have visited downtown a number of times in my life. The crosswalks in downtown Naperville have an auditory cue that could assist a person who is blind know when they have the right of way to cross the street. Another example for usage in artwork is auditory guides and signs in museums, whether on the signs, with a pair of headphones, or even a tour guide that leads groups through a museum, the blind can experience what may be initially thought to be a sight-required ordeal. But these are either rare or not necessarily everyday things even for the sighted, what is very common however in the modern day and age is keyboard usage, as anyone who has used a keyboard before may have noticed (if they are using a typical english QWERTY keyboard) there are indents on the F and J keys. These indents exist so that a user can keep their hands in the right place while typing, and of course would assist in orienting a blind user and allowing them to type easier.

### Resources available to the blind

In the local community there are many resources that exist for people who are blind to find success in many fields. The Chicago Lighthouse is a non-for profit organization that assists many groups, including the blind with, as they say in their FAQ page “Vision Care, Independent Living, Employment & Training, Assistive Technology, Education and Social Enterprise” [7]. To get in contact with The Chicago Lighthouse you can call them at, (312) 666-1331, or a video phone number for deaf users at (312) 957-4865 or visit their main building at 1850 West Roosevelt Rd Chicago, IL. For more information check the contact page in the about us tab on their website [chicagolighthouse.org](http://chicagolighthouse.org). Another resource for people who are blind and looking for special recreation opportunities in the Chicagoland area is the Chicago Park District. They offer a number of classes and opportunities to young and elderly alike, and have an entire section on their site dedicated to special recreation opportunities, the ones available to the blind as of March

20th 2023 include goalball (a sport made for those with visual impairments), adaptive archery, adaptive weight training, blind boxing, and even adaptive woodshop. To get into contact with the Chicago Park District you can call them at (312)-742-7529, email [play@chicagoparkdistrict.com](mailto:play@chicagoparkdistrict.com) or mail physically at Chicago Park District 541 North Fairbanks Chicago, IL 60611, for more information visit their website at [chicagoparkdistrict.com](http://chicagoparkdistrict.com).

And as the famed blind musician Stevie Wonder once said, “Just because a man lacks the use of his eyes doesn't mean he lacks vision.”, [8].

#### Works Cited

- [1] U.S. Department of Education. (2017, May 2). Sec. 300.8 (C) (13). Individuals with Disabilities Education Act. Retrieved from <https://sites.ed.gov/idea/regs/b/a/300.8/c/13>
- [2] U.S. Social Security Administration. (1983, February 8). *Meaning of blindness as defined in the law*. Code of Federal Regulations § 404.1581. Retrieved from [https://www.ssa.gov/OP\\_Home/cfr20/404/404-1581.htm](https://www.ssa.gov/OP_Home/cfr20/404/404-1581.htm)
- [3] Cleveland Clinic. (2022, November 14). Blindness (vision impairment): Types, causes and treatment. [my.clevelandclinic.org](http://my.clevelandclinic.org). Retrieved from <https://my.clevelandclinic.org/health/diseases/24446-blindness>
- [4] Australian Disability Clearinghouse on Education and Training (ADCET). (n.d.). *Inclusive teaching: Blind and vision impaired*. [adcet.edu.au](http://adcet.edu.au). Retrieved from <https://www.adcet.edu.au/inclusive-teaching/specific-disabilities/blind-vision-impaired>
- [5] Bentzen, B. L., & Tabor, L. S. (1998). Chapter 2: Travel by Blind Pedestrians. Travel Tools and Techniques of People Who are Blind or Who Have Low Vision. In *Accessible pedestrian signals*. essay, U.S. Access Board. Retrieved from [http://www.apsguide.org/chapter2\\_travel.cfm](http://www.apsguide.org/chapter2_travel.cfm)
- [6] World Health Organization. (2022, October 13). *Vision Impairment and blindness*. World Health Organization. Retrieved from <https://www.who.int/news-room/fact-sheets/detail/blindness-and-visual-impairment>
- [7] *FAQs*. The Chicago Lighthouse. (2022, December 28). Retrieved from <https://chicagolighthouse.org/about/faqs/>
- [8] Stevie Wonder Quotes. (n.d.). BrainyQuote.com. Retrieved March 20, 2023, from BrainyQuote.com Web site: [https://www.brainyquote.com/quotes/stevie\\_wonder\\_107100](https://www.brainyquote.com/quotes/stevie_wonder_107100)