

CHAPTER 6

SPECIAL EDUCATION OF STUDENTS WITH VISUAL IMPAIRMENTS: ADVANCING VALUES

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ABSTRACT

This chapter discusses what special education means for students with visual impairments (that is, those who are blind or have low vision) including what is being done and how traditions are maintained. More specifically, this chapter explores the importance of advancing values for the diverse population of students with visual impairments, focusing on cultivation of supportive, inclusive, and collaborative educational environments that continue to stand the test of time. This chapter highlights the increasing heterogeneity of this population of students and specific instructional strategies to support the cultural and linguistic diversity of learners with visual impairments in today's classrooms. This chapter also discusses the significance of promoting core concepts that are rooted in a traditional and specialized instructional framework for students who are visually impaired.

Keywords: Blind; collaboration; culture; diversity; family; low vision; visual impairment

INTRODUCTION

Education plays a pivotal role in shaping the minds and futures of young individuals, and providing children with knowledge, skills, and values necessary to thrive in a diverse and an ever-changing world. Within the realm of education, it is imperative to ensure that students with visual impairments (that is, those who are blind or have low vision) are not only equipped with academic knowledge but

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are also empowered with the values and skills that will guide them to lead fulfilling and meaningful lives. Advancing values for students with visual impairments involves recognizing and addressing the unique challenges they encounter in their educational journeys.

While this advancement of values is essential for all students, it holds particular significance for students with visual impairments, who encounter additional obstacles and barriers in schools, communities, and throughout their lives as a result of their limited visual access to a world that is primarily designed for sight. Visual impairments, for example, can make it challenging for students who are blind or have low vision to gather information from visual aids used in the classroom, such as smart boards, charts, diagrams, or slides. In academic subjects such as science, math, or art, students with visual impairments face difficulties when instruction relies heavily on visual demonstrations, modeling of step-by-step procedures, or hands-on activities that primarily cater to visual access. When these barriers and obstacles are effectively addressed by educational teams, students with visual impairments can meaningfully participate in and learn about academic and expanded core content at the same time as their sighted peers. The purpose of this chapter is, therefore, to equip educators, families, and others within these communities with knowledge and strategies that advance values and overall well-being of students with visual impairments in all learning spaces.

Introducing the Expanded Core Curriculum (ECC) Framework for Students With Visual Impairments

The ECC is a widely recognized and used instructional framework in the field of visual impairments that guides best practices. The ECC framework developed in 1996 by Hatlen focuses on teaching and addressing specific skills and knowledge areas that are essential for the educational and functional needs of students with visual impairments. It is designed to complement and enhance the general curriculum taught in schools. The ECC recognizes that students with visual impairments require specialized instruction in areas beyond academic subjects to develop skills for independence, socialization, and overall well-being.

The ECC consists of the following nine core areas (Hatlen, 1996):

- (1) Assistive technology: Instruction in the use of assistive technology tools, such as screen readers, magnifiers, braille displays, and accessible software enables students with visual impairments to access information and perform tasks effectively.
- (2) Career education: Students with visual impairments receive guidance and instruction to explore career options, develop vocational skills, and plan for postsecondary education or employment opportunities in the area of career education.
- (3) Compensatory skills: This area focuses on developing alternative techniques for accessing information, such as braille reading and writing, auditory skills, and adaptive technology for reading and writing.

- (4) Independent living skills: Instruction in daily living skills helps students with visual impairments develop self-care abilities, including personal hygiene, household tasks, organization, time management, and money management.
- (5) Orientation and mobility (O&M): Instruction in O&M enables students who are blind or have low vision to travel safely and independently, using skills and tools such as a white cane, auditory cues, and spatial awareness.
- (6) Recreation and leisure skills: This area focuses on promoting active participation in recreational activities, hobbies, sports, and other leisure pursuits that enhance overall well-being and social engagement.
- (7) Sensory efficiency skills: This area emphasizes the development of skills to use remaining senses effectively, including auditory and tactile skills, to gather information and engage with the environment.
- (8) Self-determination skills: Students who are visually impaired learn from self-determination skills about the development of self-awareness, goals setting, decision-making, and self-advocacy while promoting their independence, confidence, and sense of personal agency.
- (9) Social interaction skills: Students with visual impairments learn social skills, communication strategies, and self-advocacy techniques to interact effectively with peers, teachers, and the broader community as parts of this area of the ECC.

Instruction in the ECC is tailored to meet the individual needs of students with visual impairments, enabling students with visual impairments to develop essential skills in school and life. Each of the nine areas of the ECC should be taken into consideration in educating learners who are blind or have low vision. There is a natural overlap among the nine areas of the ECC. Students who are blind or have low vision and are working on their O&M skills may also at the same time be developing their sensory efficiency skills (for example, while listening for the surge of traffic at a light controlled intersection) and self-determination skills (for example, while soliciting assistance from others when traveling a predetermined route in a business district). Also, notably, the ECC complements the general education curriculum. [Table 6.1](#) provides additional information about each area of the ECC along with examples of instructional strategies to support the diverse population of students with visual impairments in this instructional framework.

Heterogeneity of the Population

When addressing this chapter's topic of advancing the long-standing values that enhance the learning of students with visual impairments, the unique characteristics of this population need to be presented. It is well established in the literature that students who are visually impaired comprise a heterogeneous population ([Dote-Kwan et al., 2001](#); [Hatton et al., 2007](#); [Pogrud & Fazzi, 2002](#)). Visual impairment, ranging from partial sight to complete blindness, encompasses a wide range of eye conditions that can be present from birth or acquired at any point in life. Furthermore, it is important to note that each student with a visual

Table 6.1. Overview of the Expanded Core Curriculum (ECC) and ECC-Related Culturally Responsive Teaching (CRT) Activities for Students With Visual Impairments by Grade Level.

ECC Area	Overview of the Area of the ECC (Hatlen, 1996)	ECC-Related Culturally Responsive Teaching Activities by Grade Level (Coleman et al., 2023)		
		Early Elementary Grade Levels	Upper Elementary Grade Levels	Secondary Grade Levels
Assistive technology	Includes no-tech, low-tech, and high-tech adaptive tools that are commercially or custom made for students who are blind or have low vision.	Student uses assistive technology (video magnifier, magnifier, audiobook reader) to read a story in their first language, is relevant to their culture, or has a main character with whom they see themselves or can relate (The Circuit).	Student works collaboratively on a joint assignment where the student with a visual impairment utilizes their assistive technology; student uses assistive technology to create a product that teaches their class or family about what they are using and why.	Student uses their assistive technology of choice to read and analyze news articles and commentaries on current events relevant to their world.
Career education	Includes meaningful exploration of careers as well as job-readiness skills that are learned incidentally by sighted people but may need to be explicitly taught.	Teacher asks families of children with visual impairments to share pictures and/or descriptions of some of the people in their families and careers they have.	Student researches someone that is more culturally similar to them within a particular content area or field of study.	Student interviews an individual from a similar cultural background who has the job they would like to pursue; collaborate with families and students to learn about their desires for future career when transitioning out of secondary education and how that fits in the context of the family's culture.
Compensatory skills	Includes literary and mathematical braille codes, concept development, tactile graphics, and specialized communication skills.	Teacher cocreates experience books with students and families in their reading medium (Coleman et al., 2023, p. 6); for emergent bilingual children, include the student's first language and	Student conducts surveys of classmates about their likes and dislikes on a variety of topics and creates a graph that depicts the results in media formats accessible to the student who is	Student uses the necessary literary and mathematical braille codes to create a living wage budget for themselves that includes any stipends provided by vocational rehabilitation and Supplemental

Table 6.1. (Continued)

ECC Area	Overview of the Area of the ECC (Hatlen, 1996)	ECC-Related Culturally Responsive Teaching Activities by Grade Level (Coleman et al., 2023)		
		Early Elementary Grade Levels	Upper Elementary Grade Levels	Secondary Grade Levels
		English; story boxes.	visually impaired and their peers.	Security Income (SSI) and takes into account their cultural values (e.g., tithing, caring for family members).
Independent living skills	Includes daily routines and tasks (e.g., personal care, food preparation, money management, household tasks) that are often learned incidentally by sighted people but often need to be explicitly taught to students with visual impairments.	Student packs for school (getting book bag ready, zipping up clothes); teacher interviews students and families to learn about chores in the classroom that mimic activities that are completed at home.	Teacher interviews families to learn their expectations and what is relevant in that family's home for the child to do as independently as appropriate (e.g., washing dishes, washing/folding/hanging clothing).	Student identifies structural causes of food deserts. Student researches and finds out their local legislator's contact information (phone and email) and initiates contact using telephone or email skills to share their concerns.
Orientation and mobility (O&M) skills	Includes methods for safe and efficient travel as well as basic and advanced concept development in the areas of O&M in school, at home, and within communities.	Student problem solves with O&M specialist to travel to rooms within the building. Record video of the child demonstrating their knowledge of routes to share with the family in the family's home language.	Student problem-solves with O&M specialist to travel between community cultural points of interest and home.	Student researches transportation options in their area and assesses their accessibility. Student creates a plan of action to address areas of need in regard to access for available transportation options.
Recreation and leisure skills	Includes development of skills for lifelong physical and leisure activities that are often learned incidentally by sighted people, but are often explicitly taught to students	Teacher asks the student's family about pretend activities they do in the home. Next, teacher asks the student to choose a specific pretend activity and asks the student to determine appropriate	Student selects a physical endurance activity from a culture of their choosing (their own, their school, or another culture they have learned about). The student teaches this activity with	Student learns about community recreation and leisure activities that align with his cultural traditions and interests. The student will plan a route to a location he frequents for

(Continued)

Table 6.1. (Continued)

ECC Area	Overview of the Area of the ECC (Hatlen, 1996)	ECC-Related Culturally Responsive Teaching Activities by Grade Level (Coleman et al., 2023)		
		Early Elementary Grade Levels	Upper Elementary Grade Levels	Secondary Grade Levels
	with visual impairments.	clothes for the activity.	classmates and they time one another to see how long each participant can maintain the endurance.	recreation and leisure activities.
Self-determination skills	Includes the skills such as decision-making and problem-solving that enhance self-advocacy and well-being in life.	Navigating common fears activity: use a Venn diagram (tactile or large print) and put on one side student fears about school/ life and the other side with teacher fears. Work with students to find commonalities in teacher/student fears as a way to establish that it's human nature to have concerns/ fears when starting something new. Try to address each student fear to put them at ease.	Student researches and writes a report on their eye condition and reflects on how their culture influences their experience as part of self-determination.	Student creates a short-term goal and an action plan for accomplishing the goal. The student keeps track of the steps they have accomplished and describes obstacles they have encountered. The student evaluates the level of success of the goal and lists changes to the goal, the action plan, or actions that they could take to improve completion of the short-term goal.
Sensory efficiency skills	Includes efficient use of available senses (e.g., visual, tactual, and auditory skills) to maximize learning and participation in school, at home, and within communities.	Go on a "sound scavenger hunt," looking for sounds at school of which they are unfamiliar. Problem-solves to identify sound source, localize sound, and travel to the sound location. Invite families to share unique sounds in their home that can be recreated at school.	Student uses a monocular telescope to read a sign for a cultural location in the community.	Student uses a combination of sensory skills to locate food in a grocery store for a dish they can prepare for their family at home.

Table 6.1. (Continued)

ECC Area	Overview of the Area of the ECC (Hatlen, 1996)	ECC-Related Culturally Responsive Teaching Activities by Grade Level (Coleman et al., 2023)		
		Early Elementary Grade Levels	Upper Elementary Grade Levels	Secondary Grade Levels
Social interaction skills	Includes the verbal and nonverbal social interaction skills that are often learned incidentally by sighted people, but are often explicitly taught to students with visual impairments.	Student shows appreciation and gratitude toward others in their first language and another language of their choosing.	Student identifies and describes the feelings that are being expressed by others by recreating through their own body language and facial expressions.	Student compares and contrasts typical social interaction norms between two or more different cultures.

Sources: Overview of the ECC adapted from Hatlen (1996) as cited in Kelly (2018, 2019, 2021). Examples of CRT Activities adapted from Coleman et al. (2023), BetterLesson (2020), and Allman and Lewis (2014).

impairment who has some degree of residual vision (i.e., remaining vision) uses this residual vision differently from another student with the same eye condition or degree of visual functioning (Corn & Lusk, 2010).

Additionally, students who are visually impaired may or may not have concomitant disabilities. The term “concomitant disability” refers to the presence of multiple disabilities or conditions that occur simultaneously in an individual. This term implies that an individual has more than one disability or impairment, which may have a combined impact on their overall functioning and daily life. These disabilities or conditions can vary in nature and severity, and they may interact or coexist in ways that influence an individual’s abilities, needs, and support requirements.

Researchers have consistently noted that the proportion of students with visual impairment who have concomitant disabilities (i.e., other disabilities in addition to their visual impairment) has been steadily increasing for the past half century. Recent demographic data pertaining to learners with visual impairments show that they are more likely to also have an additional disability than they are to have just a visual impairment (Erin, 2017). These additional disabilities include any of the other federal disability categories outlined by the Individuals with Disabilities Education Improvement Act (IDEIA, 2004a, 2004b) in any particular combination with each other (e.g., autism spectrum disorder, emotional disturbance, hearing impairment, and visual impairment) or in conjunction with the visual impairment only (e.g., hearing impairment and visual impairment). Thus, educational programming for students who are visually impaired needs to address the following heterogeneous characteristics of this population outlined by Kelly (2023):

- There are no two students who are visually impaired who see or use their remaining vision in the same way.
- Most students who are visually impaired have some degree of remaining vision.
- Most students who are visually impaired have additional disabilities.
- Students who are visually impaired with additional disabilities can have any combination of additional disabilities (e.g., visual impairment, autism, orthopedic impairment, and speech or language impairment) or a single additional disability (e.g., visual impairment and specific learning disability).
- At the same time, students who are visually impaired (having a unique degree of remaining and usable vision) without any additional disabilities need to be supported as well.
- Also, at the same time, students who are totally blind (have no remaining or usable vision) need to be supported too.

In order to address these overarching characteristics of this heterogeneous population, the educational programming of students with visual impairments involves extensive collaboration and specialized instruction by special education service providers and special education–related service providers specifically trained to support the unique learning needs of students with visual impairments. Furthermore, this diverse population of students with visual impairments also includes children who are multilingual and children who are from racially and ethnically diverse backgrounds as well as other underrepresented groups.

CULTURALLY RESPONSIVE TEACHING (CRT) PRACTICES

As explained by [Ortiz \(2001\)](#), more than 20 years ago in the forward of the seminal book *Diversity and Visual Impairment: The Influence of Race, Gender, Religion, and Ethnicity on the Individual*:

Despite standards-based reforms, there continues to be a significant gap between outcomes for individuals with special needs (such as students with disabilities, those from low-income backgrounds, students of color, and students for whom English is not their first language) and their middle-class, majority-group peers. A contributing factor is that educators and policymakers have essentially ignored the country's changing demography and the increasing diversity of American society. In too many instances, programs and services address disability-related needs but are inconsistent with the individual's racial, linguistic, cultural, socioeconomic, and other background characteristics. As a result, the very programs designed to improve outcomes for individuals with disabilities become part of the problem, not the solution. (p. ix)

Unfortunately, educators, families, students with disabilities, and the educational system at large are still grappling with these same challenges today in providing adequate support for underrepresented groups within the educational system ([U.S. Department of Education, 2022](#)). There is a need to effectively deliver services and education for students with visual impairments, and it is important to recognize that this includes students with visual impairments who

are multilingual and students with visual impairments who are from racially and ethnically diverse backgrounds as well as other underrepresented groups.

Also, notably, CRT practices are not new to the educational system or, more specifically, the field of visual impairments. Proponents of multicultural education and CRT practices such as James Banks, Geneva Gay, Zaretta Hammond, and Gloria Ladson-Billings have been researching and implementing frameworks about such practices for multiple decades (Banks, 2019; Gay, 2018; Hammond, 2014; Ladson-Billings, 1995, 2012). The main components of CRT are the following: well-developed cultural diversity knowledge base, implementation of culturally relevant curricula, display of high expectations for all students (not solely those in the majority culture), appreciation for different communication styles, and use of multicultural examples in instructional materials (Gay, 2002). Culturally responsive educators utilize student experience, perspectives, characteristics, and customs for classroom instruction and to create a more inclusive space for learning. Krasnoff (2016) outlines specific strategies for creating a classroom that is more culturally responsive in their work, *Culturally Responsive Teaching: A Guide to Evidence-Based Practices for Teaching All Students Equitably*.

Muñiz (2020) of New America has written *Culturally Responsive Teaching: A Reflection Guide* and in doing so provided a much-needed framework for educators to reflect on their current practices and challenge the status quo of education. Muñiz (2020) shared eight competencies necessary for CRT:

- (1) Reflect on one's cultural lens.
- (2) Recognize and redress bias in the system.
- (3) Draw on students' culture to shape curriculum and instruction.
- (4) Bring real-world issues into the classroom.
- (5) Model high expectations for all students.
- (6) Promote respect for student difference.
- (7) Collaborate with families and the local community.
- (8) Communicate in linguistically and culturally responsive ways (p. 3).

These eight competencies are also included in many statewide CRT standards.

The extent to which the theory has moved into practice across the United States varies between and within states. To capture the progress of state level integration of CRT standards across individual state level professional teaching standards, Muñiz (2019) published a report of her investigation of teaching standards across all 50 states and their inclusion of CRT in said standards. In this review of standards, Muñiz (2019) indicated that all 50 states include some mixture of the eight competencies in their teaching standards.

CRT and Students With Visual Impairments

As states require university personnel preparation programs to include statewide CRT standards in their teacher preparation programs, the goal is that newly minted educators will enter classrooms more prepared to teach learners from

diverse backgrounds. Teachers of students who are visually impaired (TVIs) are taught to teach students who are blind or have low vision based on their unique *needs*. In CRT, TVIs are utilizing unique *strengths* and experiences of their students to connect to what their students are learning and providing them opportunities to demonstrate in unique ways how this learning is taking place. Researchers in the field of visual impairments have built on the seminal work of Banks, Gay, Hammond, and Ladson-Billings to apply these principles to working with students who are culturally and linguistically diverse and who are also visually impaired (Coleman et al., 2023; Conroy, 2005; Gee & Zebehazy, 2020). Recommendations related to working with students with visual impairments and who are also culturally and linguistically diverse include using braille books with culturally diverse characters and culturally conscious content in literacy instruction, constructing story boxes, creating experience books with input from family about home and community, and collaborating with culturally diverse families to support advocacy (Coleman et al., 2023). Conroy (2005) provides examples and descriptions of planning and direct teaching strategies when working with students who are English Language Learners and visually impaired based on strategies used in second language acquisition. A few strategies described by Conroy (2005) include using predictable routines to reduce student anxiety, using concrete objects to build concept knowledge and language, and previewing and reviewing lesson vocabulary and content to give multiple opportunities for student learning.

Also, notably, it was more than a decade ago that researchers investigated TVIs' skills in regard to CRT practices (Correa-Torres & Durando, 2011) and working with English language learners (Topor & Rosenblum, 2013). Subsequently, researchers in the field of visual impairments offered recommendations for teachers who work with students who are visually impaired and from culturally and linguistically diverse backgrounds based on specific information learned from families and the TVIs working with these families (Correa-Torres & Zebehazy, 2014). Correa-Torres and Zebehazy (2014) interviewed Hispanic mothers of children with visual impairments in the United States and, based on these interviews made recommendations that, where appropriate, could be applied to working with families of children with visual impairments from other cultural backgrounds and underrepresented groups:

- Be comfortable asking questions to and of the family, and show interest in them as individuals, and interest in their culture, language, and customs.
- Offer to work directly with families to show techniques and suggestions for working with their child and offer to do home visits.
- Consider the perspective of culture when creating the activity/context for teaching skills.
- Remember to avoid stereotypes. Although a student and their family might identify with a specific ethnic group, in this case Hispanics, remember that not all members of that group have the same needs or experiences.

Individualization when working with different families to address their unique needs is crucial.

- Create a system that works for the family to provide information in their native language.
- Learn how to find and use interpreter services effectively and know what to do when these services are not available.
- Find ways to provide materials in the native language of families and know what to do when they are not available.
- Communicate with families about barriers preventing use of resources and help families problem-solve through those barriers (p. 197).

Table 6.1 in this chapter includes examples of CRT activities for students with visual impairments as they relate to ECC-specific skills. It is important to note that the activities listed in Table 6.1 related to CRT are intended as examples and are not representative or exhaustive of the possibilities for CRT of students with visual impairments. Also, the activities in Table 6.1 do not replace the need to do the internal reflective work required to become a culturally responsive educator. As Ladson-Billings (2012) notes, practicing CRT “is one of the ways of ‘being’ that will inform ways of ‘doing’” (p. 43). These activities shown in Table 6.1 may, therefore, serve as an example for ways in which grade levels, abilities, cultures, and ECC-specific content areas may be incorporated into CRT practices for students with visual impairments.

Overview of Specialized Educators for Students With Visual Impairments

In order to further discuss what is being done in special education for the diverse population of students with visual impairments, it is important to explain some information about the service providers and related services providers who are specifically trained and licensed/certified to teach students with visual impairments. Teachers of students with visual impairments, Certified Orientation and Mobility Specialists (COMS), and Certified Assistive Technology Instructional Specialists for People with Visual Impairment (CATIS) are vision education and rehabilitation professionals trained and certified/licensed to teach students who are blind or have low vision. Other educational team members collaborate with TVIs, COMS, and/or CATIS to support the educational programming of students with visual impairments with and without additional disabilities.

TVIs are special education teachers who provide specialized instruction, adapt the curriculum, and facilitate access to materials and technology that promote learning and independence among students with visual impairments. TVIs collaborate with families, educators, and other professionals to support students with visual impairments in receiving a comprehensive education tailored to their unique needs and abilities. The COMS is a special education–related services provider who provides instruction and guidance to students with visual impairments to develop skills for safe and independent travel and orientation in their environment. The COMS plays a major role in promoting mobility and spatial awareness for students with visual impairments. The COMS works

collaboratively with individuals, families, educators, and other professionals to support students with visual impairments in navigating their surroundings and fully participating in their communities. The CATIS is a professional who specializes in assisting people with visual impairments in accessing and effectively using assistive technology devices and software. The CATIS assesses and instructs people with visual impairments in the use of assistive technology to enhance their independence, communication, learning, and overall quality of life. The CATIS collaborates with individuals, families, educators, and other professionals to identify appropriate assistive technology solutions and provide ongoing support and training for students with visual impairments with and without additional disabilities.

Shortage of Specialized Personnel in the Field of Visual Impairments

It is a well-documented fact that there is a severe shortage of qualified TVI, COMS, and CATIS to serve students who are visually impaired. The demand for these special education teachers and related services personnel exceeds the available supply (Boe et al., 2013; Browder et al., 2014; Council of Administrators of Special Education, 2020; Mason-Williams et al., 2020; McLeskey & Brownell, 2015; U.S. Department of Education, 2022). The chronic shortage of personnel qualified to serve students with visual impairments has been recognized for decades (Ambrose-Zaken & Bozeman, 2010; Bozeman & Zebehazy, 2014; Kirchner & Diament, 1999; Mason & Davidson, 2000). For more than a half century, experts in the field have published research detailing the desperate need for trained professionals. This grave situation has long been recognized among the leaders in the field and, unfortunately, exists to this day. Innovative methods for recruiting new personnel in the field of visual impairments are much needed across the United States and throughout the world.

Diverse Service Delivery Models

One of the byproducts of the COVID-19 pandemic exposed long-standing challenges in a multitude of access areas for individuals from marginalized communities, including those with disabilities. As a result, there has been a concerted effort to improve access to reliable internet, quality instructors through technology, gainful employment, and much more in the special education service delivery models for students who are visually impaired (Silverman et al., 2022). Unfortunately, the shortage of special educators who provide services to students with visual impairments (e.g., TVI, COMS, and CATIS) have been exacerbated even further by the COVID-19 pandemic and are at a crisis point nationally (Silverman et al., 2022). While it is clear that the pandemic will have lasting impacts on students, families, and educators, it has also provided important lessons that are guiding the future of education for all students, including students with visual impairments.

The American Foundation for the Blind's (AFB's) *Access and Engagement III* report elaborated on these lessons and the changes among families of children

with visual impairments, “the pandemic has led some families to opt for other school placements for their child, often to a placement that provided more individualized attention for the child (Silverman et al., 2022, p. 24).” The diversity of school placements can be leveraged by providing intensive, evidence-based individualized instruction and interventions in person and through distance learning technologies in a variety of early intervention, early childhood, and school settings for students with visual impairments (e.g., natural environments; public schools, including charter schools; private schools; and other nonpublic education settings, including home education). Schools are becoming increasingly more reflective of these unexpected benefits of and changes in technology and infrastructure resulting from the pandemic (Silverman et al., 2022).

Also, at the start of the pandemic, students who are visually impaired and their families needed to master digital learning platforms very quickly. Students who are visually impaired vary widely in the level of exposure to or training with technology they had received prior to the pandemic (Kelly, 2009, 2011, 2021, 2022). For example, students with visual impairments often struggle to access digital learning and require high levels of support from their families and teachers to complete their coursework, or even for basic functions like logging in to a video meeting (Silverman et al., 2022). Notably, families, educators, and consultants have expressed their support for having technology and assistive technology instruction begin at younger ages, and be more intensive and inclusive, for students who are visually impaired (Silverman et al., 2022).

ADVANCING INCLUSION THROUGH NONDRIVER AND LOW VISION DRIVER EDUCATION

In terms of inclusivity, driver education is another important topic area and long-standing challenge that has unique implications for students who are blind or have low vision. The ability to drive in the United States and many other countries worldwide has been considered a rite of passage generation after generation (Sacks & Rosenblum, 2006). Additionally, in many geographic regions of the world, driving is a necessity for gainful employment. Also, although the ability to drive is centered and highly valued in the United States and other countries, it is a privileged status to have the money to afford a car, gas, and car insurance, of which not all people have access. Not all individuals are eligible to engage in this activity, which for students with visual impairment, can be emotionally devastating as they observe their peers going through the steps to obtain a driver’s license and often feel “left behind” (Pasley, 2019, 2022). One of the ways educators attempt to mitigate these feelings is by offering nondriver education as a means to include learners with visual impairments in the transportation conversation. Typically, the responsibility of teaching about nondriving options has fallen to the COMS, or in instances where there is not a COMS available, the teacher of students with visual impairments. In 2000, Drs. Anne Corn and Penny Rosenblum authored *Finding Wheels: A Curriculum for*

Nondrivers with Visual Impairments for Gaining Control of Transportation Needs to support educators when preparing adolescents with visual impairments with recognizing and problem-solving for practical difficulties and emotional obstacles when navigating the built environment. The first iteration of this curriculum was designed for the instructor. In 2020, Corn and Rosenblum updated *Finding Wheels* so it was written directly to the adolescent/young adult traveler with a visual impairment as a guidebook with vignettes to illustrate concepts and activities to identify, problem-solve, and plan for current and future transportation needs. The topics covered in *Finding Wheels* (2020) and that are typical of nondriver and low vision driver education are presented in [Table 6.2](#).

In addition to alternative modes of transportation, [Corn and Rosenblum \(2020\)](#) address driving with low vision, specifically with the use of bioptic lenses. Their inclusion of this topic in their curriculum is further evidence of the diversity of visual impairment, not simply those with vision and those without. When broaching the topic of low vision driving, it is important to recognize that not all who qualify to obtain a driver's license feel comfortable and/or the necessity to do so. Access to alternative modes of transportation and age of onset may account for these feelings. As with all decisions regarding a child's education, it is important to first talk with students who are visually impaired and their families to learn the goals of the student with visual impairments and their family members as well as how these goals fit within the context of their culture and future life plans. The importance of this collaboration and family involvement will be discussed next in terms of this chapter's focus on the advancement of values in the education of students who are blind or have low vision.

Table 6.2. Nondriver and Low Vision Driver Education Topics and Descriptions.

Topic	Description
Foundation building	Understanding learner's visual impairment and implications for nondriving
Personal wheels	Modes of transportation including walking, biking, rollerblading, and skateboarding
Public wheels	Modes of transportation including buses, trains, subways, ferries, airplanes, and paratransit
Drivers providing wheels	Modes of transportation include taxis; limousines; rideshare services; carpools; rides with family members, friends, or coworkers; and hiring private drivers
Low vision driving	Driving with bioptics, positive and negative personal feelings about driving with bioptics, and skills needed by low vision drivers
Paying for transportation	Budgeting, funding, exchanging, and reciprocating for accepted rides
Soft skills needed for successful transportation	Social skills, problem-solving, waiting for transportation, and managing frustrating situations

Source: Adapted from [Corn and Rosenblum \(2020\)](#).

COLLABORATION AND FAMILY INVOLVEMENT

Collaboration is of importance in the advancement of values involved in teaching students with visual impairments as it ensures a comprehensive and inclusive educational experience to support some of the challenges experienced by students with visual impairments that have been presented thus far in this chapter. Phillips et al. (1995) reviewed transcripts of collaborative teams of special education and general education teachers who worked together to develop inclusive practices within their schools. The following conclusions were established by this study:

Collaborative efforts between special and general educators tended to progress through identifiable phases or stages... (a) experiencing anxiety, (b) working out the logistics, (c) determining classroom roles, (d) sharing planning and curriculum development, (e) recognizing and articulating the benefits of collaboration, (f) learning to recognize when a more restrictive setting may be appropriate, and (g) evaluating the overall effort. (p. 265)

The findings of this study are examples of key strategies that can be implemented by educational teams for successful collaboration in the assessment and resulting instruction of learners with visual impairment across educational settings. Thus, by working together in these various ways, teachers, specialists, families, and other professionals can pool their expertise, resources, and perspectives to address the diverse needs of students who are visually impaired in the most effective ways. Collaboration allows for a holistic approach to instruction, where strategies, accommodations, and adaptations can be shared and tailored to the specific needs of each student who is blind or has low vision. It facilitates the exchange of knowledge and best practices, enabling educators to stay informed about the latest advancements in teaching techniques, assistive technology, and accessibility. Moreover, collaboration fosters a supportive network that promotes the social-emotional well-being of students with visual impairments and enhances their sense of belonging within the educational community. By joining forces, these various interest parties can create an inclusive environment where students with visual impairments can thrive academically, socially, and personally.

Family involvement is also paramount in the education of students with visual impairments as families provide a strong foundation for academic and personal development. When families actively participate in their child's education, they become valuable partners in the educational journey. Family members bring essential insights into the unique strengths, needs, and preferences of their child who is visually impaired, enabling educators to individualize instruction and support. Families collaborate with teachers, specialists, and school staff to ensure that appropriate accommodations, adaptations, and resources are in place for students who are blind or have low vision. Additionally, families play a crucial role in reinforcing skills, practicing strategies, and providing emotional support at home that was only exacerbated further during the COVID-19 pandemic (Silverman et al., 2022). Family involvement promotes consistency, continuity, and a holistic approach to learning, supporting students with visual impairments in achieving their full potential and their involvement is an integral part of engaging in CRT practices.

CONCLUSION

Advancing values for students with visual impairments is not only important for their academic and social development but also empowers them to navigate a visual world with resilience and effective strategies for overcoming barriers and obstacles as a result of having limited or no vision. By creating inclusive learning environments, incorporating values into the curriculum, promoting social–emotional development, and leveraging assistive technology, educators, families, and communities foster the well-being of students with visual impairments, including those students with visual impairments from underrepresented groups. Through family involvement, mentorship, and real-world experiences, the diverse population of students with visual impairments gains support and guidance, reinforcing and advancing commitment to such values. With a collective effort, educational teams create an educational system that supports the heterogeneous population of students with visual impairments, enabling them to lead purposeful and fulfilling lives.

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