

Effective Transition Planning for Successful Postsecondary Outcomes for Students who are Deaf-blind

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Introduction

When determining whether a particular postsecondary education program will be suitable for a student who is deaf-blind, there are a number of factors to take into consideration. This paper will address the need for early transition participation by the vocational rehabilitation counselor, the deaf-blindness representative, and the coordinator of student support services from the prospective college or university.

Since the passage of the Rehabilitation Act of 1973, there have been a series of legislative advancements that have created a more supportive and consumer-responsive service delivery system. The focus on collaboration between education and adult service agencies, along with emphasis on informed choice on the part of consumers, has created a supportive environment that is more inclusive of persons with disabilities and, specifically, individuals who are deaf-blind. Language in the recently passed Individuals with Disabilities Education Act (IDEA) and the 1992 Amendments to the Rehabilitation Act has established, on paper, a definite fusion between education and adult services. A team that is knowledgeable, open-minded, sensitive, and cooperative will better insure a deaf-blind student's achievement than one that is less receptive and less connected to the needs and desires of the student. While the staff from the office for students with disabilities may be unable to attend transition meetings for all students, there are other ways information concerning available support services can be shared (Scott, 1996).

Transition Planning

Effective transition for students who are deaf-blind should begin no later than age 16 and can begin as early as age 14 when warranted. The specific disability of the student should be taken into consideration when planning for postsecondary support needs. Whenever possible, educational programs should create support systems that closely resemble the degree and type of support services to which the student will have access at the college level. This will better prepare the student and increase the possibility for success. In the states of Delaware and Pennsylvania, teams working with students who are deaf-blind collaborate to create an atmosphere in the final two years of the secondary educational program that are similar to that which will be encountered at the college or university level.

Understanding the student's specific disability and needs is vital to facilitating a smooth transition from high school to college. Four very critical questions that should be addressed by the team when planning for any student with a disability are listed below.

Etiology. What is the cause of the student's disability? Some disabilities, especially those associated with deaf-blindness, have additional characteristics that may further affect development, both physically and cognitively. Persons who are deaf-blind as a result of Congenital Rubella Syndrome may have average or above average intelligence; however, secondary characteristics such as late-onset diabetes, hypertension, glaucoma, and emotional

disturbance may have a detrimental effect on the student's ability to function in an highly intense and fast-paced collegiate program.

Age of onset. When did the disability manifest itself? Whether the disability was present at birth or was acquired after the onset of language will often determine the type of support the student receives. For those persons who have had limited hearing and vision since birth, the information that is provided will have to utilize the residual vision and hearing and capitalize greatly on the student's cognitive ability. For those students who acquire a disability later in life and have had time to develop an auditory or visual memory, providing support/educational services *can* be less difficult. Using the existing communication to develop a new system is best employed with this population. (This concept will be expounded upon later in the case studies section.)

Severity of disability. How severe is the individual's disability? How much residual vision and hearing remain? For those deaf-blind students whose vision impairment is legal blindness, the extent of the severity of the vision loss will have great impact on the approach to providing support services. Students with Retinitis Pigmentosa may have 20/20 vision, but difficulty seeing what is in the peripheral area. This is very significant when such students are participating in group discussions or getting around campus. If the student is a signer, focusing on the individual who is speaking may require additional time. Having other students in the group wait until the deaf-blind student has *located* them in his or her visual field before beginning to speak will ensure that the deaf-blind student is able to fully participate in group discussions. Likewise, for those deaf-blind students who have some residual hearing, sitting in the front of the class may be a sufficient accommodation. However, depending on the size of the class, environmental noises, and severity of the student's hearing loss, there may be a need for an assistive listening device.

Educational background. Did the student receive any formal educational intervention? If so, what type? For students with cognitive disabilities or acquired disabilities, this information is very useful. If a student has previously attended an educational program where they were exposed to Braille, sign language, assistive technology, or interpreter services, this can be incorporated into the transition planning. Any previous records from former educational programs are useful in determining what support needs the student has, and what does and does not work (Ingraham, Daugherty, & Gorrafa, 1995).

Not only is it critical for the team to be aware of these issues for students, the student should also be aware of the cause of his or her disability. The student needs to understand the impact it will have on the ability to fully participate in a postsecondary educational program. Self-advocacy skills are essential to prevent needless challenges and setbacks. For students exiting a high school program, understanding their rights and needs are the single most decisive factors to success.

Self-Identification

As a means of preparing students for self-advocating at the college level, teams working with students at the high school level can begin to explain what supports they have been provided and encourage the student to do as much of the planning for and requesting of these services while still a high school student (Scott, 1996). Upon entering a college program, if a student who is deaf-blind does not acknowledge himself to the office of support for students with disabilities, the college is not required to provide any support. For the staff at the office of student support services to effectively service and support any student with a disability, an understanding of the disability and how well the student utilizes his or her residual sensory abilities, or the specific accommodations needed can determine how successful that student will perform academically. If the college or university is not aware of where to locate specific equipment or services to accommodate a deaf-blind student, the student can be a valuable resource. Contact can also be made with

members of the high school team for guidance. This is especially true if the transition team includes a specialist trained to work with persons who are deaf-blind. Ideally, the student would have visited the college campus to meet with staff from the office for students with disabilities prior to committing to attend. However, for those rare occasions when this contact was not made, the high school team or specialist in deaf-blindness can be of tremendous help. (See resource list.)

Special Accommodations

One difference between high school and postsecondary education is the volume and complexity of information that must be comprehended. A bright student might have been able to survive in high school receiving only about half of what the teacher presented, but that same percentage of reception will be disastrous in a postsecondary education setting. The effective use of today's technology can increase a student's ability to receive all of the information presented, so that he/she can not merely "get by," but be given the opportunity to excel. The use of available technology can make this transition from high school to college a lot easier. What might have been an effective means for communication with teachers and other students at the high school level might have to be adapted or modified for the postsecondary level.

There are a variety of situations in which a student who is deaf-blind might need to access information at the college level. Equally true, there are also a variety of methods that can be used by the student.

Text. Text is a medium in which a tremendous amount of information is exchanged. For students with visual impairments, text might be one of the most difficult obstacles to overcome at the postsecondary educational level. Text can include a broad range of material, such as textbooks, class notes, homework assignments, and exams. For students who are using a note taker, the type of print that is best for them to read should be shared with the note taker before the term begins (Heath, 1995).

Magnification. If a student has residual vision, magnification may be an effective means for accessing text. Magnification can be accomplished in a variety of ways. Three possibilities are glass magnifiers, video magnification (CCTV), and computer screen magnification. It should be noted that there are different methods to indicate magnification levels. A product that claims 10 times (10X) magnification may really be only slightly more than 3X. Some manufacturers use the increase along a linear dimension while others use an area-based formula. For example, if something was made four times wider, some manufacturers would say that would be four times magnifications, but at the same time the image would also become four times higher, and therefore others would say that it would be 16 times larger because the overall area increased by 16 times. It is best to test the device with sample material that is similar to what the student will be using with the device.

Another aspect of magnification to be considered is that as the level of magnification increases, the amount of information that can be viewed at any one time decreases. If we make something twice as wide and twice as high, then we will only be able to view a quarter of the original material at any one time. Other factors that effect the magnification are lighting, glare, contrast, background, and foreground color.

Glass magnifiers. Glass magnifiers use the light refractive properties of glass or plastic to increase the size of an image. Glass magnifiers tend to be effective means when only low magnification levels are required. With glass magnifiers, there tends to be increased distortion of the image with higher levels of magnification. A clear advantage of glass magnifiers is that they are relatively inexpensive and extremely portable.

Closed circuit television. Closed circuit television (CCTV) magnification devices are effective for a broad range of magnification levels. They are preferred for situations where higher levels of magnification are needed. A typical CCTV consists of a small video camera that is focused on the material to be magnified and a video screen that

displays the magnified image. Most CCTVs have the ability to adjust the magnification level, inverse the display colors, and modify the brightness and contrast.

The CCTV can be categorized into portable and desktop models. The portable models usually have hand-held cameras and a small video screen that can be hooked up to a standard TV set. Desktop CCTVs come with a camera that is part of a base with a tray that holds the material to be viewed. A desktop CCTV will also have its own video monitor. The type of CCTV that will be most beneficial for a particular student depends on the material being viewed, the student's visual acuity, the format of the material the student is reading, and where the student intends to use the device.

Computer magnification. When using a computer, there are a few ways to magnify what is on the screen. Windows '95, for example, has some magnification abilities, but these are limited. Also, with some programs, you can increase the size of the font, but this again has its limitations. When additional magnification is needed for a computer, programs can be purchased which will magnify what is on the screen. These programs have a broad range of magnification levels. They can also modify the screen image in other ways, such as: inverting the screen colors, magnifying only part of the screen, and panning across the screen.)

Braille. For students that are Braille readers, text information can be translated into Braille. Braille is a text system that uses a pattern of raised bumps to indicate particular letters, numbers, or punctuation marks. A Braille character is composed of six possible dots, whereby print characters are represented by the placement of 1 - 6 of the dots raised in a particular pattern. Textbooks can be requested from publishers in either a Braille format or a computer disk format. The publishers might need extra time to fill such an order, so it is imperative that enough time be given, preferably a few months. This is one reason why it is important for advanced planning to make the process as smooth as possible.

Embossed Braille. The primary method of producing Braille is to punch small indentations into paper, which generate raised dots on the reverse side of the paper. These raised dots are felt by the person reading the Braille. This method of producing Braille requires that the text be in a computerized format, which can be typed, scanned, or retrieved from a disk. Then with a Braille translation program and a Braille embosser, the information can be embossed onto paper for the student.

Refreshable Braille. If the information is in a computer, then with the aid of a refreshable Braille display, a student can access the information. With a refreshable Braille display, the text that appears on the screen also appears on an additional display unit with a Braille output. This Braille display has Braille cells that have pins the same size as typical Braille dots, and these pins move up and down to produce the Braille characters. Using a system like this, a person can access most of the information that is available on a computer. Refreshable Braille displays can also be used by students to write assignments or take notes.

In-class discussions. There are a variety of ways that students may gain access to in-class discussions. These include the use of sign language interpreters, computer assisted notetaking, and FM systems.

Sign language interpreters. For students that use sign language as a primary means of communicating, sign language interpreters should be provided. For students with visual impairments, some modifications may be required for them to use an interpreter. The modifications of the interpreting situation should be what are most beneficial for the student. For students with little or no residual vision, the interpreter should use tactile sign language if the student is able to comprehend this technique. With tactile sign language, the student would place his or her hands on top of the hands of the interpreter. For students with small visual fields, the interpreter might have to use a smaller space for signing or increase the distance between themselves and the student (Smith, 1994).

For class situations where audiovisual material is utilized, it is best to have prior knowledge of this information so that the student and the interpreter can work out the logistics of how this type of visual information will

be communicated. The lighting and glare in the classroom can also impact the communication between the deaf-blind student and the interpreter. Preferential seating for students with limited vision or severe visual difficulties should be discussed with the instructor prior to the beginning of the semester to avoid delays or disruptions during the course of the semester as presentations and special activities are planned. For some students eye fatigue can cause gaps in communication processing. Exploring the possibility of videotaping the class interpreter for viewing at a later time when the student is less fatigued can be very beneficial.

Class length should also be taken into consideration for students who are easily fatigued. Classes that are fifty minutes in length may be optimum as opposed to classes that are longer. Sharing requests for specific class length with the Office for students with disabilities can enable some students to receive preferential registration (Scott, 1996).

For students giving in-class presentations, a meeting with the interpreter and the instructor can assist in ensuring that information is communicated in a clear manner. Another accommodation that may have to be explored is student participation in class. For those deaf-blind students who are interested in participating in class discussions, raising one's hand may mean missing critical information especially if tactile interpreting is taking place. Discussing with the interpreter and the instructor the most appropriate and acceptable way of injecting or asking questions should be done prior to, or at the beginning of the semester

Computer assisted note taking. Another method of understanding what is happening during class is for a typist to type on a computer what the professor is saying. The student then reads the information from a computer screen or access device (Braille or screen magnification). This is very helpful for individuals who are unable to understand sign language, but are able to access text. One advantage of this system is that after the class is over, the student will have a copy of the information saved on the computer that can be accessed for studying.

FM systems. An FM system is an effective means for students with some residual hearing to better hear what the professor is saying. With an FM system, the professor wears a small microphone with a transmitter that sends a signal to a small receiver that the student has connected to his/her hearing aid. In classroom settings, this method can reduce the interference of background noise.

Orientation and mobility. Most college campuses are large and very complicated with classrooms several yards or even miles apart. For deaf-blind students who are attending a large college or university and are required to negotiate a large campus, transportation may be a viable option. Discussing mobility needs with the office for students with disabilities may enable the student to receive transportation support or preferential consideration for class location. Additionally, deaf-blind students may require orientation to and from each class each semester. It is not realistic to think that a deaf-blind student with a significant visual impairment will be able to master an entire college campus in one semester. While there may be some students who are capable of such a feat, it should not be considered the norm.

Orientation to special and necessary locations on campus such as: the cafeteria, library, computer lab and health facilities are but few of the areas that should be shown to the student. A large print or tactile map of the campus can also be used to assist the student in navigating the grounds. The housing accommodations for a deaf-blind student must take into consideration the location of the dorm to the student's classes and the cafeteria. Also, safety issues regarding emergency alerting devices and door and telephone signaling devices need to be in place before assigning a dormitory room to a deaf-blind student.

Case Studies

Judy P. was born with limited hearing and vision, and by the age of five she was functioning with limited light perception and a profound hearing loss. Her I.Q. is in the gifted range and her method of communication is tactile sign language. She received training in and is proficient in Signing Exact English (SEE); however, she is comfortable

with ASL. She attended a residential school for the deaf for a short time as a youngster and later transferred to private school in her early primary years. Throughout her entire educational program she was provided with an interpreter tutor, mobility instructor, itinerant vision instructor, and assistive technology.

At the age of sixteen, Judy, along with her family and transition team, decided that she would benefit from a comprehensive educational evaluation at the Helen Keller National Center. Due to the additional time required for specialized services such as orientation and mobility, speech therapy, technical support and test taking throughout her regular class day, it was necessary for her to make use of free time in the summer to obtain exposure to non-academic areas. While she functioned exceptionally well academically, Judy had not gotten the opportunity to explore possible careers or to acquire other vital skills to enable her to function independently at the college level. The nine-week evaluation yielded recommendations in the area of independent living, computer access technology, and vocational possibilities. Judy's evaluation and subsequent training were all necessary to afford her an opportunity for a successful transition from high school to college.

Several visits were made to colleges and universities to explore the types of support services available. While there were a number of very significant occurrences that impacted on Judy's challenges her initial year, one key misfortune was that she did not fully explain her support needs to the staff at the office for students with disabilities. As a result she left that college program and entered another program closer to home. She took one class at a time until she was able to become comfortable with the new program and familiar with the accommodations. She is now a full-time student taking fifteen credits and is planning to graduate within the next few years.

David F. was born with retinal blastoma and subsequently lost his vision. The etiology of his hearing loss is unknown, however, it has been present since early childhood. At the present time he has a moderate to severe hearing loss. David attended a residential school for the blind until the age of twelve. A gifted young man, he was immediately placed on an accelerated academic track upon entering an inclusive program after exiting the segregated program. Due to his limited hearing he was fitted with two behind the ear hearing aids and would occasionally use an FM system in larger classrooms. Additionally, David was provided with support from itinerant vision and hearing instructors as well as an orientation and mobility specialist.

Following attendance at two American Association for the Deaf-Blind conventions, supported by the vocational rehabilitation program under the category of career exploration, David attended a comprehensive educational evaluation at the Helen Keller National Center. Upon entering the program, David was provided with information on college programs and technology that would enhance his access to educational information. The comprehensive evaluation report included recommendations for a scanner, Braille embosser, ink-print printer, computer, computer-assisted notetakers, telecommunication device, assistive listening device and training. All devices were purchased for David prior to the completion of his senior year in high school.

Although David visited the college campus where he would enroll, he did not take into consideration all of his support needs. Transportation to and from classes, seating in the classroom and requesting proper support from the office for students with disabilities made for a very turbulent freshmen year for David. Presently, he is providing more comprehensive information about his academic and support needs and is looking to become more involved in working with other freshmen who may be deaf-blind and are considering this particular university.

Although *Steven C.* did not have Usher Syndrome, his vision loss created similar limitations as that of a person with RP. He experienced a variety of educational settings before arriving at college. Although he knew sign language, and in spite of his profound hearing loss, he preferred to use his speech for expressive communication and considered himself to be hard of hearing. His signing skills were not well-developed and he did not effectively express his needs in the classroom. While VR supplied him with up-to-date technology, extensive orientation and mobility

training, and hours of support, he received no counseling or training regarding his hearing and vision loss. During his second postsecondary education setting an alert administrator in the office for students with disabilities called on HKNC for in-service training for support staff as well as ongoing consultation for staff, the student, and his family.

Some staff were convinced from the outset that Steve could not succeed in college without significant ongoing support; however, all believed he had the potential, and agreed to give Steve their full support. Additional support was made available to Steve with the understanding that it was his responsibility to ask for it, and to schedule time with staff. Often Steve was unable to follow through with classroom assignments because he had not asked the office for students with disabilities for the additional support he needed. Regular visits with support staff were added to his schedule to insure opportunities for discussion and needs identification.

On more than one occasion, staff assisted with social difficulties and even guide dog issues that arose. Steve's lack of care in bathing his dog and his overprotection of the dog posed problems and tended to alienate him from fellow students. A trusting relationship between parents, the HKNC representative, and staff from the office for students with disabilities allowed a consistent approach when addressing these types of situations.

The office for students with disabilities team worked together in every area. During one term the interpreter reported having difficulty getting Steve to pay attention in class. Many questions were asked: *Why is this happening? What is different? Is it possible he is having small seizures? Is it possible he is on drugs? Could it be related to being deaf-blind?* A call was made to the HKNC regional representative. Each scenario was thoroughly discussed; options were outlined to determine the cause and locate appropriate assessments. During the problem solving process, the regional representative inquired into the manner in which the student was alerted by the interpreter prior to communication. Through a series of questions, it was determined that Steve was not properly alerted to the presence of the interpreter, nor was he provided with time to locate the interpreter before communication began. A good team relationship allowed for plenty of questions and numerous possible solutions.

Because of Steve's need for additional support and training, he could not carry a full load and maintain his grades. The VR counselor along with the support team recommended that Steve attend the Helen Keller National Center for a comprehensive rehabilitation evaluation and training. Following the completion of his rehabilitation training, a new team was set up, with Steve at the center, to determine what educational and/or vocational goals should be pursued.

The Forecast

As was stated previously, recent legislative changes have created a support system that effectively links education and adult services to facilitate a smooth transition for students who are deaf-blind. The more informed and proactive the student and family are, the greater the possibility for successful postsecondary outcomes. A team should consist of the student, professionals from the secondary educational program, a deaf-blind specialist, the vocational rehabilitation counselor, and, whenever possible, a representative from the office for students with disabilities at the college or university in which the student is considering enrolling. The need for the student to self-identify as a deaf-blind student with unique needs will be crucial to the type of support that he or she is provided. Accessing local resources in the area of deaf-blindness will assist any team working with transition-aged youngsters who are exploring the possibilities of postsecondary education.

Until recently, there were no codes used by the Rehabilitation Services Administration exclusively for persons who were deaf-blind. Since the passage of the 1992 Amendments to the Rehabilitation Act, a series of five codes has been in use to properly identify deaf-blind clients. The unfortunate reality is that not all counselors are

employing the new codes and, as a result, many clients are not being properly identified as deaf-blind. Consequently, they are not being considered for necessary support services consistent with their disability.

Accessing community resources as well as the resources on campus will not only make for a more successful postsecondary experience, but will also prepare the student for the transition from college to adult life. Interpreter referral services, support service providers and the local vocational rehabilitation office can be very valuable community resources for the deaf-blind student as he or she becomes acclimated to the college community. This familiarity of accessing community services and exploring personal options within the community will be of great benefit when the student completes his or her collegiate program and begins to face the reality of truly living independently.

A comprehensive approach to accessing needs and providing support for deaf-blind students while still in high school creates a more of an opportunity for success at the college level. Ideally, any student who is considering attending college following graduation from high school should have early contact with his or her vocational rehabilitation counselor and be the central figure in the transition planning process. Contact with the HKNC regional representative or affiliate can assist with any questions, confusion, or challenges which may arise.



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