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Pursuing a Common Goal: Measuring the Comfort Level of Educational Diagnosticians to Manage a Caseload of Students with Visual Impairments

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Cover Page Footnote

I would first like to thank my thesis advisor, Michael Munro, program director of Stephen F. Austin State University's visual impairment program, for guiding me to the completion of this paper. He and Dr. Phoebe Okungu were very encouraging as I researched my topic and they asked just the right questions to spur me on as I wrote my paper. In my pursuit of VI and O&M certification, and later a master's degree, I was very fortunate to have had instructors who set the bar high and stoked my love for the field of visual impairment: Debbie "Cricket" Cady, Tracy Hallack, Barry Stafford, and Heather Munro. Also, I appreciate my special education director, Vicki Branch, and my former director, Shirley Allen, for their unwavering belief in me as I worked towards my goals.

Pursuing a Common Goal: Measuring the Comfort Level of Educational Diagnosticians to Manage a Caseload of Students with Visual Impairments

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ABSTRACT

This study was conducted to measure the level of comfort and knowledge that educational diagnosticians possess regarding the unique learning needs, assistive technology, special accommodations, agencies, required visual impairment related individual educational plan (IEP) documents, and special evaluation considerations appropriate for students with a vision loss. Teachers of students with visual impairments (TVI) were surveyed to gauge their perception of educational diagnosticians' knowledge of the field of visual impairment and diagnosticians were also surveyed to determine their comfort level in the management of a caseload of students with visual impairments. Research questions were based on how TVIs rated the comfort level and knowledge of educational diagnosticians to effectively manage a caseload of students with visual impairments, how diagnosticians rated their own comfort level and knowledge to manage a caseload of students with visual impairments, where TVIs and diagnosticians agreed that there is a lack of knowledge or awareness on the part of the diagnostician when it comes to managing a caseload of students with visual impairments, and what TVIs and diagnosticians believe can be done to better prepare diagnosticians to work with students who are visually impaired. Data collected for this study found that collaboration among a team of professionals, including TVIs and diagnosticians, provided benefit to students who are visually impaired. Survey responses from diagnosticians indicated they would like more training in low-incidence disabilities such as visual impairment to prepare them to manage a caseload of students with visual impairments.

KEYWORDS: Visual impairment, educational diagnostician, teacher of students with visual impairments, unique learning needs, collaboration in special education, evaluation considerations

Pursuing a Common Goal: Measuring the Comfort Level of Educational Diagnosticians to Manage a Caseload of Students with Visual Impairments

It would be a fair assumption that most educators – no matter their preferred teaching specialty, level of expertise, or teaching philosophy – are pursuing a common goal of ensuring the academic success for all students they're charged with educating. Classroom teachers who are on the frontlines of this effort to provide a free and appropriate education to every student are supported by specialists trained to work with students with cognitive, physical, and learning disabilities. This is especially true when serving students with low-incidence disabilities. In these cases, collaboration among professionals is crucial in the quest of educating children outside the mainstream. Educators who serve children with disabilities need to seek out others who possess the professional knowledge and expertise of working with students who cannot be described as "typical."

The term *low-incidence disability* refers to disabilities that represent less than 1% of the school population (U. S. Department of Education, 2003). Low-incidence disabilities are defined by the Individuals with Disabilities Education Act (IDEA) as:

> a visual or hearing impairment, or simultaneous visual and hearing impairments; a significant cognitive impairment; or any impairment for which a small number of personnel with highly specialized skills and knowledge are needed in order for children with that impairment to receive early intervention services or a free appropriate public education. (IDEA, 2004, 20 U.S.C. 1462, Section 662(c)(3))

Under IDEA, 13 specific disability conditions are listed that are used to qualify public school students for special education services. Each disability has its own definition and characteristics,

eligibility criteria, assessments, and required individual educational plan (IEP) documentation (IDEA, 2004).

Visual impairment or blindness is one of the 13 disability categories recognized by IDEA and is categorized as a low-incidence disability (IDEA, 2004). Friend and Bursuck (2012) report that low-incidence disabilities make up 20% of all students with disabilities and, besides visual impairment, include intellectual disability, deaf/hard of hearing, orthopedic impairments, deafblindness, other health impairments (such as asthma, attention deficit disorder or attention deficit hyperactivity disorder, diabetes, epilepsy, a heart condition, hemophilia, lead poisoning, leukemia, nephritis, rheumatic fever, sickle cell anemia, and Tourette syndrome), traumatic brain injury, multiple disabilities, and autism spectrum disorders. According to unpublished data from the annual registration of students who are visually impaired, collected at the Texas School for the Blind (TSBVI) in 2015, there were a total of 9,658 students with visual impairment registered with the Texas Education Agency (TEA). Another 707 students were registered as deafblind (Texas Action Committee for the Education of Students with Visual Impairment, 2015). Those who are deafblind may or may not be included in the count of those who are registered as visually impaired in the state.

Educational diagnosticians are specialists in disability assessment who evaluate, interpret psycho-educational testing, consult with teachers and parents, complete required documentation for IEP meetings, and manage a caseload of children with disabilities for a district or individual campus. In Texas, diagnosticians must hold a master's degree in special education (with emphasis in assessment), pass the state diagnostician certification test, and meet the standards set forth in the Texas Administrative Code (Title 19; Part 7; Chapter 239; Subchapter C). Much of a diagnostician's caseload consists of students with high-incidence disabilities which Rojewski,

Lee & Gregg (2013) described as learning disabilities or emotional-behavior disorders. It stands to reason that diagnosticians have more experience with students identified with high-incidence disabling conditions such as learning disabilities and emotional disturbance and may not be as well versed in low-incidence disabilities such as visual impairment. If diagnosticians are expected to manage a caseload of students with disabilities, a caseload which could include students who are blind or visually impaired, the obvious question would be, "Do diagnosticians feel adequately trained to address the unique learning needs of students who are visually impaired?"

Purpose

The purpose of this research was to measure the level of comfort that educational diagnosticians have regarding the unique learning needs, assistive technology, special accommodations, and special evaluation considerations appropriate for students with a vision loss. Children who are visually impaired have unique learning needs that could include braille services, assistive technology, special accommodations for state assessment such as large print or braille, related services such as orientation and mobility, and special considerations such as determining if a certain evaluation instrument is appropriate in the assessment of a student with vision loss (Educational Region Center 18, n.d.). When compared to other disability categories, there are still even more differences such as curriculum enhancements specifically the expanded core curriculum (ECC) for student with visual impairments as first identified by Hatlen (1996). Visual impairment also requires additional evaluations and assessments that are specific to the disability including the Functional Vision Evaluation (FVE), Learning Media Assessment (LMA), and expanded core curriculum assessment, as well as required IEP paperwork such as

the visual impairment eligibility, supplement, and consent for release of confidential information from the registration of students with visual impairments

Specifically, this study will seek to determine diagnosticians' comfort level in managing a caseload of students who are visually impaired while answering the following questions:

1. How would TVIs rate the comfort level and knowledge of educational diagnosticians to effectively manage a caseload of students with visual impairments?
2. How would diagnosticians rate their own comfort level and knowledge to manage a caseload of students with visual impairments?
3. In which areas do TVIs and diagnosticians agree that there is a lack of knowledge or awareness on the part of the diagnostician when it comes to managing a caseload of students with visual impairments?
4. What do TVIs and diagnosticians believe can be done to better prepare diagnosticians to work with students who are visually impaired?

The research data that are collected in this study can shed light on whether diagnosticians feel prepared to manage a caseload of students with visual impairments and what can be done to effectively train diagnosticians in the characteristics and needs of low-incidence disabilities, specifically visual impairment. This communication may occur through publication, state conferences, and/or national conferences.

Personal Research Stance

The primary researcher is a certified educational diagnostician who is also dually certified as a teacher of students with visual impairments (TVI) and an orientation and mobility (O&M) specialist. As I was brainstorming for a research topic to complete my master's degree in visual impairment (the second author is a faculty member in the program where I was seeking

my master's degree), I knew I wanted to somehow tie together my two professional roles of educational diagnostician and teacher of students with visual impairments.

As a diagnostician pursuing additional certification as a TVI and orientation and mobility specialist, I recalled my first few visual impairment (VI) certification classes I took and how, as a diagnostician, I felt that I should have already known basic VI information such as the eligibility criteria, appropriate classroom accommodations, allowable modifications and accommodations for cognitive and achievement testing, and the assessments and evaluations required for students with visual impairments.

As a diagnostician, I had not had many students with visual impairments on my caseload, but for those students' IEP meetings, I always allowed the TVI to do what I understood was her job: Propose IEP goals, complete the VI supplement, work with students with visual impairments, and explain to teachers and the Admission, Review, and Dismissal (ARD) committee (also know as the IEP meeting) the implications of the students' vision. I began to wonder if my situation was an anomaly. Were other diagnosticians as uninformed about the field of visual impairment as I felt? I looked back to my university diagnostician training and felt confident the program provided the best possible preparation for my duties as a diagnostician. In the graduate classes I took for diagnostician certification, we learned about learning disabilities because students with learning disabilities make up the bulk of most diagnosticians' caseloads. Autism was another disability that I was well-versed in; intellectual disabilities too. My training as a diagnostician was designed to suit the population with whom I would be working with the most. Low-incidence disabilities were given less focus. This is not a criticism but rather a matter of allocation of the limited time available in the training programs.

Talking to colleagues in the diagnostician field, I got the feeling that they, too, felt a little unsure about the field of visual impairment and the lack of knowledge would become evident when a student with a visual impairment would enroll in one of our schools. I asked one veteran diagnostician when it was she learned that there were specific IEP documents required for students who are visually impaired. She replied, "About five minutes before my first ever VI ARD." She revealed that the itinerant TVI sat her down just minutes before the ARD and explained what paperwork was needed, how itinerant services were provided, and consents that were needed – requirements that were drastically different from an ARD for a typical special education child. Her experience reminded me of my first ARD meeting for a student with a visual impairment and I wondered, are other diagnosticians as apprehensive as I was and is there anything that can be done to improve diagnosticians' disability knowledge specific to the field of visual impairment?

Review of Literature

Research measuring the level of comfort that educational diagnosticians possess regarding the unique learning needs, assistive technology, special accommodations, and special evaluation considerations appropriate for students with a vision loss is lacking. The Texas Administrative Code and the Texas Education Code defines the roles, responsibilities, and training required of educational diagnosticians (Texas Administrative Code, Chapter 239, Subchapter C., Section 239.83, 2009) as well as teachers of students with visual impairments (Texas Education Code, Chapter 21, Section 21.0485, 2011). The unique learning needs, evaluation considerations, and specialized IEP documents of students with visual impairments are also well documented (Hatlen, 1996; Texas Action Committee for the Education of Students with Visual Impairment, 2015).

The Texas Administrative Code Chapter 239, Subchapter C., Section 239.83 outlines the requirements that must be met for a professional to work as an educational diagnostician in the state of Texas. To work in a Texas public school as a diagnostician, a candidate must: 1) complete a diagnostician certification program at an accredited university, 2) obtain a master's degree, 3) have a teacher certification, 4) have at least two years of teaching experience, and 5) pass the state certification test for educational diagnostician.

The roles and responsibilities of a diagnostician are numerous, but a few required knowledge and skills mentioned in the State Board of Education rules that directly impact students with visual impairments are knowledge of the laws and legal issues associated with evaluation, maintaining confidentiality of records, effectively collaborating with parents and school personnel, and using effective communication, both written and oral, to interpret evaluation results (Texas Administrative Code, Chapter 239, Subchapter C, 2002).

Teachers of students with visual impairments are also highly trained specialists who have completed graduate course work in visual impairment and passed the State of Texas certification tests in braille and visual impairment, which is required by the Texas Education Code (Texas Education Code, Chapter 21, Section 21.0485, 2011). Two universities in Texas offer certification to teach students who are visually impaired: Stephen F. Austin State University (SFASU) in Nacogdoches and Texas Tech University (TTU) in Lubbock. According to the SFASU and TTU teacher of students with visual impairment (TVI) program websites, among the certification courses candidates are required to take include braille instruction, anatomy of the eye, basic orientation and mobility, foundations of visual impairment, and working with students who have multiple impairments including visual impairment. Twenty-one (SFASU) to 24 (TTU) credit hours are required for certification and both university programs include a 150-hour

practicum. Both university programs train their TVIs using the distance learning model. Both SFASU and TTU also offer master's degrees in visual impairment as well as orientation and mobility. Dual certification in TVI and O&M is also offered in both institutions. Additional support for educators working towards TVI certification include being assigned a mentor by the Texas School for the Blind and Visually Impaired (TSBVI) and being able to participate in Mentor Center activities, which include shadowing experienced TVIs and O&Ms while they perform their duties at the school and in the Austin area community (Allan, n.d.).

Since no research studies were located that measured educational diagnosticians' knowledge and comfort level when managing a caseload of student with visual impairments, it was determined by this researcher and his advisors that meaningful data could be obtained on this topic by surveying both diagnosticians and teachers of students with visual impairments that might help improve training of diagnosticians.

Method

This section will include information about who participated in the study, how participants were selected, the instruments that were used in the study, how the information was distributed to the selected participants, and a reporting of the data as well as an analysis of the data collected. Concluding this section will be recommendations based on the analysis of the data. This research study and materials were reviewed by Stephen F. Austin State University's Institutional Review Board (IRB) for Protection of Human Subjects in Research (see Appendix A). The confidentiality of respondents was protected at all times and no personal identifiable information such as name, birth date, or email addresses were collected.

Subject Selection and Description

The targeted participants for this study were two groups of certified Texas professional educators: Teachers of students with visual impairments (TVIs) and educational diagnosticians (diags). Two different surveys were distributed: One tailored for diagnosticians and one for TVI (see Appendices B and C). An email containing an invitation to participate in the study, an explanation of the purpose of the study, the text of the informed consent, and a link to the online survey was emailed to consultants and specialists at each of the 20 Education Service Centers across the state of Texas with a request to forward to their professional contacts (see Appendices D, E, and F). Other invitation methods included invitations to participate in the study on diagnostician and TVI professional group pages on LinkedIn and Facebook (see Appendices G, H, and I), emails to professional contacts, and flyers with a Quick Response (QR) code linked to the survey that was distributed at a professional conference for diagnosticians (See Appendix J).

Questionnaire

Two electronic surveys were developed for this study: One for TVIs and one for diagnosticians. Qualtrics.com was utilized to distribute the surveys and to collect the data. The survey distributed to teachers of the visually impaired included five questions to establish a participant profile such as gender, age, and professional experience, and 12 questions that measured the TVI's assessment of diagnostician's knowledge of the field of visual impairment. TVIs completing the survey were instructed to base their answers on the diagnostician they work with more often. TVIs had the opportunity to answer most questions using a rating scale of "strongly agree, agree, disagree, strongly disagree, or prefer not to respond." Most questions featured an optional comment bar allowing the respondent to elaborate on their answer. There were also a few questions that allowed the TVI to check all choices that apply and a space at the end of the survey to share additional comments that were not addressed by the survey.

The survey distributed to educational diagnosticians included nine questions to establish a participant profile such as gender, age, and professional experience, and 11 questions that measured the diagnostician's own assessment of his or her knowledge of the field of visual impairment. Diagnosticians had the opportunity to answer most questions using a rating scale of "strongly agree, agree, disagree, strongly disagree, or prefer not to respond." Most questions featured an optional comment bar permitting the diagnostician to elaborate on their answer. There were also a few questions that allowed the diagnostician to check all choices that applied and a space at the end of the survey to share additional comments that were not addressed by the survey. The data were evaluated and percentages calculated using Qualtrics' analytics tool.

Demographics

Both TVI and diagnostician respondents answered questions that established a demographic profile of their respective educational community. Teachers of students with visual impairments were asked to share their age, gender, how many years they had worked in the field of education, and how many years they were certified as a TVI. Diagnosticians were asked to disclose age, gender, how many years they had worked in the field of education, how many years they had been certified as an educational diagnostician, how many students with visual impairment are currently on their caseload, and approximately how many students with visual impairment they have had on their caseload throughout their entire career.

A total of 305 completed surveys were collected and used in the calculation of data, 85 from teachers of students with visual impairments and 220 from educational diagnosticians. In order for the survey to be calculated for the purposes of the study, the respondent had to agree to implied electronic consent and answer that they were certified in their respective field (TVI or diagnostician) in the state of Texas.

Data Collection

Data was collected electronically by means of two surveys created using Qualtrics online software. Links to the surveys were emailed to Education Service Centers across the state of Texas, requesting that they forward the survey link to their professional contacts. The survey link was shared by other means including requests for participation on LinkedIn and Facebook professional groups for TVIs and diagnosticians. All but seven surveys were completed using the anonymous link. Seven diagnosticians responded using a QR code that was provided to diagnosticians attending a professional conference. Data for the TVI survey were collected over a period of 42 days and diagnostician surveys were collected over a period of 36 days.

Results

Participants

Demographics for the two questionnaires used in this study were obtained from 85 completed surveys collected electronically from TVIs and 220 completed surveys collected electronically from diagnosticians. In the opening section of both surveys, TVIs and diagnosticians were asked several questions to establish a demographic profile of those who responded.

Of the 85 TVIs who completed the survey, 97.65% (n=83) were female and 2.35% (n=2) were male. Among diagnosticians who responded, 92.73% (n=204) were female, 5.45% (n=12) were male, and 1.81% (n=4) chose not to respond. Most of combined TVI and diagnostician respondents, 94.10% (n=287), reported they were female.

Table 1

Reported age of TVIs and diagnosticians

Age	TVI (n=85)	Diagnostician (n=220)	Total (n=305)
18 - 24	1	0	1

	(1.18%)	(0.00%)	(.33%)
25 - 30	7	11	18
	(8.24%)	(5.00%)	(5.90%)
31 - 40	20	66	86
	(23.53%)	(30.00%)	(28.20%)
41 - 50	25	69	94
	(29.41%)	(31.36%)	(30.82%)
51 - 60	24	54	78
	(28.24%)	(24.55%)	(25.57%)
61 or older	7	16	23
	(8.24%)	(7.27%)	(7.54%)
Chose not to respond	1	4	5
	(1.18%)	(1.82%)	(1.64%)

Most of the respondents, both TVI and diagnostician, were older than 31 years of age and younger than 61 years of age (See Table 1). Only 9.42% (n=8) of TVIs and 5% (n=11) of diagnosticians reported their age to be 30 or younger and only 8.24% (n=7) of TVIs and 1.82% (n=4) of diagnosticians described their age to be 61 or older. Of those participants who reported their age to be between 31 and 60, 23.53% (n=20) of TVIs and 30% (n=66) of diagnosticians were between the ages of 31 and 40, 29.41% (n=25) of TVIs and 31.36% (n=69) of diagnosticians were between the ages of 41 and 50, and 28.24% (n=24) of TVIs and 24.55% (n=54) were between the ages of 51 and 60. Preferring not to respond included one TVI and four diagnosticians. A majority of combined respondents 30.82% (n=94) reported their age in the range of 41 – 50 years old.

Table 2

TVI and diagnostician years of experience in the field of education

Years working in the field of education	TVI	Diagnostician	Total
1 - 5	7	6	13
	(8.24%)	(2.72%)	(4.26%)
6 - 15	31	77	108
	(36.47%)	(35.00%)	(35.41%)
16 - 20	14	41	55

	(16.47%)	(18.64%)	(18.03%)
21 - 30	15	66	81
	(17.65%)	(30.00%)	(26.56%)
31 years or more	17	29	46
	(20.00%)	(13.18%)	(15.08%)
Chose not to respond	1	1	2
	(1.18%)	(0.45%)	(0.66%)

Respondents were asked to report the number of years they had been working in the field of education (See Table 2). Most TVIs, 36.47% (n=31) and diagnosticians, 35% (n=77), answered that they had been working six to 15 years in the education field. Among those participating in the study, 8.24% (n=7) of TVIs and 2.72% (n=6) of diagnosticians responded that they had been working in the field of education a total of one to five years, 16.47% (n=14) of TVIs and 18.64% (n=41) of diagnosticians answered they had been employed as an educator for 16 to 20 years, 17.65% (n=15) of TVIs and 30% (n=66) of diagnosticians replied that they had been working in the education field between 21 and 30 years, and 20% (n=17) of TVIs and 13.18% of diagnosticians (n=29) had been employed in the education field for more than 30 years. Among the completed surveys, one TVI and one diagnostician chose not to answer the question. The majority of both TVIs and diagnosticians have between six and 15 years in the field of education.

TVI and diagnostician participants were asked how long they had been certified in their respective career fields. Among respondents, 45.88% (n=39) of TVIs and 37.73% (n=83) of diagnosticians answered one to five years; 24.71 (n=21) of TVIs and 35.91% (n=79) answered six to 15 years; 9.41% (n=8) of TVIs and 14.09% of diagnosticians replied 16 – 20 years; 9.41% (n=8) of TVIs and 8.64% (n=19) answered 21 – 30 years; and 10.59% (n=9) of TVIs and 2.73% (n=6) responded that they had been certified in the field 31 years or more. Two diagnosticians

(0.91%) did not answer the question. Combined, 40% (n=122) of TVIs and diagnosticians who responded have been certified in their respective fields for a period of only one to five years.

Survey questions

Table 3

Knowledge about classroom accommodations appropriate for a student with a visual impairment

	Strongly agree	Agree	Disagree	Strongly disagree	Chose not to respond
TVI: The diagnostician I work with is knowledgeable about classroom accommodations appropriate for a student with a visual impairment (n=85)	9 (10.59%)	46 (54.12%)	22 (25.88%)	7 (8.24%)	1 (1.18%)
Diag: As a diagnostician, I am knowledgeable about classroom accommodations appropriate for a student with a visual impairment (n=220)	21 (9.55%)	144 (65.45%)	43 (19.55%)	11 (5.00%)	1 (0.45%)
Combined total (n=305)	30 (9.84%)	190 (62.30%)	65 (21.31%)	18 (5.90%)	2 (0.66%)

Many of the TVIs and diagnosticians who were surveyed agreed that diagnosticians are knowledgeable about classroom accommodations that are appropriate for students with visual impairments (See Table 3). Separating the groups by profession, 64.71% (n=55) of TVIs agreed or strongly agreed that diagnosticians are knowledgeable about accommodations for students with visual impairments and 75% (n=165) of diagnosticians agreed or strongly agreed while, combining the two groups, 72.14% (n=220) agreed or strongly agreed that diagnosticians are knowledgeable about accommodations for students with visual impairments. A diagnostician who estimated that she has had about five students with visual impairments during her career

commented, "It has helped to work closely with the VI teachers. I became knowledgeable with accommodations and devices."

Of the two groups, data shows that more TVIs than diagnosticians would disagree with the statement. 34.12% (n=29) of TVIs disagreed or strongly disagreed that diagnosticians are knowledgeable about classroom accommodations for students with visual impairments while only 24.55% (n=54) of diagnosticians disagreed or strongly disagreed. A TVI wrote in her comments, "I work with many different diagnosticians. Most readily admit that they know little about VI accommodations initially. Most work to educate themselves and request information from me."

Table 4

Knowledge about the eligibility criteria for visual impairment

	Strongly agree	Agree	Disagree	Strongly disagree	Chose not to respond
TVI: The diagnostician I work with is knowledgeable about the eligibility criteria for visual impairment (n=85)	6 (7.07%)	39 (45.88%)	32 (37.65%)	7 (8.24%)	1 (1.18%)
Diag: As a diagnostician, I am knowledgeable about the eligibility criteria for visual impairment (n=220)	42 (19.09%)	115 (52.27%)	56 (25.45%)	6 (2.73%)	1 (0.45%)
Combined total (n=305)	48 (15.74%)	154 (50.49%)	88 (28.85%)	13 (4.26%)	2 (0.66%)

When asked if the diagnostician is knowledgeable about the eligibility criteria for visual impairment, 52.95% (n=45) of TVIs agreed or strongly agreed while 45.89% (n=39) of surveyed TVIs disagreed or strongly disagreed with that statement (See Table 4). One TVI who disagreed

with the statement commented, "The diagnosticians do not even know that an eye doctor report is needed. They frequently refer to the VI specialist for any concerns" while a TVI who agreed that the diagnostician she works with was knowledgeable about the eligibility criteria wrote about the diagnostician she works with, "We collaborate often about eligibility, so the ed diagnostician is becoming more and more aware of eligibility requirements for our students with VI."

Surveyed diagnosticians were more positive about their understanding of the eligibility criteria for visual impairment with 71.36% (n=157) agreeing or strongly agreeing that they are knowledgeable about how a child qualifies as a student with a visual impairment. One diagnostician wrote that she attended a professional development workshop at her region center. "I would say that I am familiar as opposed to knowledgeable," she commented. Another diagnostician wrote, "I always make an effort to consult VI personnel within our district to follow the proper eligibility guidelines and needs of our VI population." Many of the diagnosticians, whether they agreed or disagreed with the statement that they were knowledgeable of the eligibility criteria for visual impairment, mentioned that they could consult with the TVI, refer to their district policies and procedures handbook, or research the requirements in Legal Framework.

Table 5

Knowledge about the expanded core curriculum (ECC)

	Strongly agree	Agree	Disagree	Strongly disagree	Prefer not to respond
TVI: The diagnostician I work with is knowledgeable about the expanded core curriculum (n=85)	2 (2.35%)	7 (8.24%)	55 (64.71%)	21 (24.71%)	0 (0%)

Diag: As a diagnostician, I am knowledgeable about the expanded core curriculum (n=220)	8 (3.64%)	42 (19.09%)	122 (55.45%)	43 (19.55%)	5 (2.27%)
Combined total (n=305)	10 (3.28%)	49 (16.07%)	177 (58.03%)	64 (20.98%)	5 (1.64%)

On the question of whether the diagnostician is knowledgeable about the expanded core curriculum, both professional communities concurred that diagnosticians are not yet familiar with the concept or benefits of the ECC (See Table 5). A sizable majority of TVIs, 89.42% (n=76), and diagnosticians, 75% (n=165), reported that they disagreed or strongly disagreed that diagnosticians are knowledgeable about the ECC. Comments from TVIs included, "They [diagnosticians] have no idea what this is. Even the directors of special education only have a vague understanding of this" and "I am still working with diagnosticians, administrators, and teachers explaining the ECC. It is a slow process." Diagnosticians also acknowledged that they had a lot to learn about the ECC, which just recently became state law. One diagnostician wrote, "I have general knowledge of what it is, but not what is included in it" and one disclosed, "I have a very faint understanding." On a positive note, one TVI commented, "They [diagnosticians] are not informed about ECC but are willing to listen and learn about it" and a diagnostician reported, "Just learned a bit about it this week thanks to our super-knowledgeable VI itinerant teacher!" For the most part, however, judging by the comments, the ECC is not yet common knowledge in the schools.

Table 6

Knowledge about the unique learning needs of children who are visually impaired

	Strongly agree	Agree	Disagree	Strongly disagree	Chose not to respond

TVI: The diagnostician I work with is knowledgeable about the unique learning needs of children who are visually impaired (n=85)	6 (7.06%)	28 (32.94%)	39 (45.88%)	11 (12.94%)	1 (1.18%)
Diag: As a diagnostician, I am knowledgeable about the unique learning needs of children who are visually impaired (n=220)	20 (9.09%)	134 (60.91%)	61 (27.73%)	4 (1.82%)	1 (0.45%)
Combined total (n=305)	26 (8.52%)	162 (53.11%)	100 (32.79%)	15 (4.92%)	2 (0.66%)

TVIs and diagnosticians who were surveyed for this study did not agree on whether diagnosticians are knowledgeable about the unique learning needs of children who are visually impaired (See Table 6). One TVI commented that diagnosticians "to a limited degree" understood the learning needs of students who qualify for VI services. "They know about preferential seating and large print…pretty much it." Another TVI wrote, "I feel they generally realize they have unique learning needs they just don't always know what those needs are or how extensively a student's vision effects education." Among surveyed TVIs, 59.82% (n=50) of TVIs disagreed or strongly disagreed that diagnosticians were knowledgeable about the unique learning needs of children who are visually impaired.

On the other hand, 70% (n=154) of diagnosticians believed they were informed about the unique learning needs of students with visual impairments. "Because each case is unique," one diagnostician, who said she has two to three students with visual impairments a year, commented, "I work very closely with our VI specialist. There are so many variables – extent of

vision loss, if the disease is progressive, how much sight a student had before they began losing it, etc." Another diagnostician wrote, "I make every effort to keep up with research on the unique learning needs of children who are visually impaired."

Table 7

Knowledge about evaluation considerations for students who are visually impaired, including (but not limited to) appropriate assessment instruments and allowable accommodations and/or modifications during evaluation

	Strongly agree	Agree	Disagree	Strongly disagree	Chose not to respond
TVI: The diagnostician I work with is knowledgeable about evaluation considerations for students who are visually impaired (n=85)	4 (4.71%)	31 (36.47%)	41 (48.24%)	8 (9.41%)	1 (1.18%)
Diag: As a diagnostician, I am knowledgeable about evaluation considerations for students who are visually impaired (n=220)	23 (10.45%)	116 (52.73%)	70 (31.82%)	9 (4.09%)	2 (0.91%)
Combined total (n=305)	27 (8.85%)	147 (48.20%)	111 (36.39%)	17 (5.57%)	3 (0.99%)

Another question where opinion did not match regarded whether diagnosticians were knowledgeable about evaluation considerations for students with visual impairments such as appropriate assessment instruments and allowable accommodations/modifications during evaluation (See Table 7). Overall, 57.65% (n=49) of TVIs did not agree that diagnosticians were familiar with evaluation considerations, but 63.18% (n=139) of diagnosticians surveyed agreed

or strongly agreed that they were knowledgeable about which test kits were appropriate for students with vision loss and what accommodations and modifications were allowed during evaluation of a student with a visual impairment. "In doing assessments for VI students," a diagnostician wrote, "I have also consulted for the TVI to support the selection of appropriate instruments." Conversely, a TVI who responded to the survey commented, "Only once in my eight years as a TVI has a diagnostician asked me about vision accommodations before an FIE."

Table 8

Knowledge about consulting with the teacher of students with visual impairments (TVI) prior to evaluating or reevaluating a student who has a visual impairment prior to administering cognitive or achievement tests

	Strongly agree	Agree	Disagree	Strongly disagree	Chose not to respond
TVI: The diagnostician I work with consults with me prior to evaluating or reevaluating a student who has a visual impairment prior to administering cognitive or achievement testing (n=85)	24 (28.24%)	27 (31.76%)	22 (25.88%)	8 (9.41%)	4 (4.71%)
Diag: As a diagnostician, I consult with the teacher of students with visual impairments (TVI) prior to evaluating or reevaluating a student who has a visual impairment prior to administering cognitive or achievement tests (n=220)	140 (63.64%)	68 (30.39)	3 (1.36%)	5 (2.27%)	4 (1.82%)
Combined total (n=305)	164 (53.77%)	95 (31.15%)	25 (8.20%)	13 (4.26%)	8 (2.63%)

One issue where TVIs and diagnosticians did not share common ground had to do with whether diagnosticians consulted with the teacher of students with visual impairments prior to evaluating or reevaluating a student who has a visual impairment prior to administering cognitive or achievement tests (See Table 8). When combining the responses of "disagree" and "strongly disagree," 35.29% (n=30) of TVIs disagreed with that statement while only 3.63% (n=8) of diagnosticians disagreed. A clear majority of diagnosticians – 94.03% (n=208) – responded that they consult with TVIs before evaluating a student with a visual impairment. As one diagnostician put it, "This should not even be a question – you must consult with the VI person."

Table 9

Knowledge that best practice dictates that the Functional Vision Evaluation (FVE) be completed prior to conducting the Full Individual Evaluation (FIE)

	Strongly agree	Agree	Disagree	Strongly disagree	Chose not to respond
TVI: The diagnostician I work with knows that best practice dictates that the Functional Vision Evaluation be completed prior to conducting the Full Individual Evaluation (n=85)	11 (12.94%)	27 (31.76%)	33 (38.82%)	11 (12.94%)	3 (3.53%)
As a diagnostician, I know that best practice dictates that the Functional Vision Evaluation be completed prior to conducting the Full Individual Evaluation (n=220)	84 (38.18%)	101 (45.91%)	23 (10.45%)	7 (3.18%)	5 (2.27%)
Combined total (n=305)	95 (31.15%)	128 (41.97%)	56 (18.36%)	18 (5.90%)	8 (2.62%)

A question regarding completing the Functional Vision Evaluation (FVE) prior to conducting a Full Individual Evaluation (FIE) also caused a divided response from TVI and diagnostician respondents (See Table 9). When asked if the diagnostician knows that best practice dictates that the FVE be completed before beginning the FIE, 51.76% (n=44) of TVIs disagreed or strongly disagreed while 84.09% (n=185) of diagnosticians agreed or strongly agreed. A comment from one TVI noted that the diagnostician "has been told – doesn't practice" while a couple of responses from diagnosticians indicated that there may not be a clear understanding of why completing the FVE before the FIE is important to ensuring that the student's vision is considered during the evaluation process. "I consult with the VI teacher and we create a game plan," one diagnostician wrote. "I don't need to wait until they do their part. I also use the eye report." Another remarked, "Usually we do our evaluation and then request FVE for VI teacher to review." Comments such as this suggest that best practices in regards to the FVE and LMA being completed prior to the FIE are not being adhered to. In "VI Referral Fast Facts," the TSBVI Outreach department recommends that "the FVE be completed before the Full Individual Evaluation (FIE) so that the TVI can provide information and any necessary modifications to further assessment" (Texas School for the Blind and Visually Impaired Outreach Programs, n.d.). This evaluation best practice originates from federal regulations which state:

> Assessments are selected and administered so as best to ensure that if an assessment is administered to a child with impaired sensory, manual, or speaking skills, the assessment results accurately reflect the child's aptitude or achievement level or whatever other factors the test purports to measure, rather than reflecting the child's

impaired sensory, manual, or speaking skills (unless those skills are the factors that the test purports to measure). (Evaluation Procedures, 2006)

Table 10

Knowledge that the TVI is a required committee member at all annual ARDs held for students with visual impairments

	Strongly agree	Agree	Disagree	Strongly disagree	Chose not to respond
TVI: The diagnostician I work with knows that the TVI is a required committee member at all annual ARDs held for students with visual impairments (n=85)	31 (36.47%)	43 (50.59%)	8 (9.41%)	2 (2.35%)	1 (1.18%)
Diag: As a diagnostician, I know that the TVI is a required committee member at all annual ARDs held for students with visual impairments (n=220)	150 (68.18%)	59 (26.82)	4 (1.82%)	7 (3.18%)	0 (0%)
Combined total (n=305)	181 (59.34%)	102 (33.44%)	12 (3.93%)	9 (2.95%)	1 (0.33%)

According to completed surveys, diagnosticians appear to be complying with the important requirement that TVIs are included in all annual IEP meetings held for students with visually impairments (See Table 10). Based on the data collected, 87.06% (n=74) of TVIs agree or strongly agree that the diagnosticians they work with understand the requirement to include a TVI on the ARD/IEP committee and 95% (n=209) of diagnosticians responded that they know about the requirement. As one diagnostician wrote, “It's been drilled ‘if they're [TVIs] not there [at the ARD/IEP meeting], it's not duly constituted.”’

Table 11

Knowledge of vision-specific items

	TVI: The diagnostician I work with has a working knowledge of these vision-specific items (n=85)	Diag: As a diagnostician, I have a working knowledge of these vision-specific items (n=220)
Functional Vision Evaluation (FVE)	63 (74.12%)	148 (67.27%)
Learning Media Assessment (LMA)	49 (57.65%)	134 (66.90%)
VI Supplement in the ARD document	63 (74.12%)	181 (82.27%)
State of Texas Eye Report	48 (56.47%)	148 (67.27%)
Texas School of the Blind and Visually Impaired (TSBVI)	30 (35.29%)	176 (80.00%)
VI Registration Consent Form	32 (37.65%)	96 (43.64%)
State law regarding O&M evaluation	15 (17.65%)	92 (41.82%)
Required information for parents of students with visual impairments	22 (25.88%)	141 (64.09%)
The benefits of braille	11 (12.94%)	67 (30.45%)
The benefits of Orientation & Mobility	11 (12.94%)	116 (52.73%)
Texas Workforce Commission (formerly DARS and the Division of Blind Services)	18 (21.18%)	127 (57.73%)
Annual VI registration	11 (12.94%)	66 (30.00%)
Assistive technology for students with visual impairments	22 (25.88%)	126 (57.27%)
American Printing House for the Blind (APH)	6 (7.06%)	56 (25.45%)
No Answer	8 (9.41%)	17 (7.73%)

For this question, a list of agencies, documents, and laws specific to visual impairment was presented (See Table 11). TVIs were asked to click next to any item of which they felt that the diagnostician had a working knowledge. The same list was presented to the diagnosticians and asked if they had a working knowledge of the items. The items rated highest by the TVIs was the VI Supplement to the ARD, 74.12% (n=63), and the FVE, also at 74.12% (n=63). The lowest rated item, according to the TVIs was the American Printing House for the Blind at 7.06% (n=6). An explanation for many of the low ratings could be that the TVI usually takes responsibility for ensuring these items are completed, so the diagnostician may not be aware of the purpose of these documents, agencies, or requirements. As one TVI wrote, "Essentially, most know only that these items must be completed." In the self-rating completed by diagnosticians, their top and bottom responses mirrored the TVI's answers: 83.27% (n=181) marked that they had a working knowledge of the VI Supplement and APH was rated the lowest, 25.45% (n=56). A diagnostician remarked, "Working knowledge, yes, but I always defer to the certified TVI for specifics at they relate to programming for a VI student." For most of the other items listed, diagnosticians tended to give themselves higher marks for working knowledge than did TVIs.

Table 12

Diagnostician's comfort level to manage a caseload of one or more students with visual impairments

	Extremely comfortable	Comfortable	Not comfortable	Extremely un-comfortable	Chose not to respond
TVI: How I would describe the diagnostician's comfort level to manage a caseload of one or more students with visual impairments	3 (3.53%)	42 (49.41%)	30 (35.29%)	4 (4.71%)	6 (7.06%)

(n=85)					
Diag: As a diagnostician, how I would describe my comfort level to manage a caseload of one or more students with visual impairments (n=220)	29 (13.18%)	129 (58.64%)	51 (23.18)	9 (4.09%)	2 (0.90%)
Combined total (n=305)	32 (10.49%)	171 (56.07%)	81 (26.56%)	13 (4.26%)	8 (2.62%)

When asked to measure diagnostician's comfort level to manage a caseload of one or more students with visual impairments, a slim majority of TVIs, 52.94% (n=45), answered that the diagnosticians they worked with were comfortable or extremely comfortable (See Table 12). "I think comfort level varies based on the complexity of the student," one diagnostician offered. "They are the least comfortable with a blind student who has additional disabilities in the area of neurological functioning or learning disabilities but functions above the level of severely disabled."

Diagnosticians self reported that they were comfortable, 56.64% (n=129) or extremely comfortable, 13.18% (n=29), in managing a caseload of students with visual impairments. Many of the diagnosticians gave credit to their TVI counterparts to supporting and educating the diagnostician in VI matters. One diagnostician provided this input: "Of course I do not do this independently. I always consult with our awesome VI staff." Another remarked: "VI teachers have been great resource for any questions I have had." Another diagnostician wrote, "I'm comfortable as long as I am supported by a strong TVI. If the TVI is not strong, I am less comfortable," while another commented, "Level of comfort also influenced by how competent and helpful the TVI is." Another diagnostician who answered she was comfortable managing a VI caseload explained, "I am comfortable because I have easy access to TVIs."

Table 13

What can be attributed a diagnostician's comfort level as being rated "comfortable" or "extremely comfortable" for his or her knowledge of the field of visual impairment?

	TVI: If you rated the diagnostician's comfort level as "comfortable" or "extremely comfortable," to what would you attribute his or her knowledge of the field of visual impairment? (m=85)	Diag: If you your comfort level as "comfortable" or "extremely comfortable," to what would you attribute your knowledge of the field of visual impairment? (n=220)
Not applicable	22 (4.71%)	----
Knowledge gained from a diagnostician certification program	6 (7.06%)	25 (11.36%)
Collaboration with a teacher of students with visual impairments	50 (58.82%)	132 (60.00%)
Workshop(s)	4 (4.71%)	52 (23.64%)
Self-study	7 (8.24%)	64 (29.09%)
Prefer not to respond	3 (3.53%)	6 (2.73%)
Other	6 (7.06%)	46 (20.91%)
Did not answer	9 (10.59%)	45 (20.45%)

TVIs and diagnosticians who rated diagnosticians' comfort level to manage a caseload of students with visual impairments as comfortable or extremely comfortable agreed that a diagnostician's comfort level to manage a caseload was dependent on the collaboration between TVI and diagnostician (See Table 13). Among TVIs who completed a survey, 58.82% (n=50) answered that diagnosticians' comfort level is increased by collaboration with a TVI and 60% (n=132) of diagnosticians agreed with that response. A TVI who took the time to add a comment on the survey summed it up: "It is an ongoing process for all and collaboration and communication is needed to stay up to par with laws and regulations."

Table 14

TVI: If you rated the diagnostician's comfort level as "not comfortable" or "extremely uncomfortable," what can be done to better prepare new diagnosticians to manage a caseload of students who are blind or visually impaired?

Not applicable	Instruction in diagnostician certification program	Receive training from TVI	Workshop(s)	Self-study	Chose not to respond	Other
34 (40.00%)	18 (21.18%)	18 (21.18%)	20 (23.53%)	2 (2.35%)	19 (22.35%)	9 (10.59%)

Those TVIs who rated the diagnostician's comfort level as not comfortable or extremely uncomfortable were asked what can be done to better prepare a diagnostician to manage a caseload of students with visual impairments (See Table 14). An equal number of respondents, 21.18% (n=18), responded "Instruction in diagnostician certification program" and "Receive training from a TVI." A diagnostician who added additional comments suggested this: "Include in the diagnostician program a class or two that focuses on VI and AI [Auditorily Impaired] students' needs. There are lots of things that a diagnostician could/should know about

VI/AI students that would help them interpret testing results if they had more of a background in the area."

Discussion

The discussion section will examine the collected data and establish whether diagnosticians believe they are prepared to manage a caseload of students with visual impairments and whether their co-workers who specialize in visual impairment consider them prepared.

When the surveys were created, the hypothesis, based on the researcher's own experience was that teachers of students with visual impairments would be especially critical of diagnosticians' understanding of the field of visual impairment. It was believed that teachers who work with students with visual impairments would fault the training and coursework required to become certified as a diagnostician. While there were comments to that effect, the consensus appeared to be that diagnosticians relied on the expertise provided by a teacher who was trained to work with students with visual impairments and TVIs were eager to share their knowledge.

The surveys and resulting study were formed around four research questions. Based on those questions, survey questions were constructed to allow TVIs to rate diagnosticians' knowledge and comfort level of the visual impairment field, to gauge diagnosticians' own feelings about their abilities to manage a case load of students who are visually impaired, determine which areas of visual impairment diagnosticians are lacking in awareness, and what can be done to train diagnosticians to better understand the unique learning needs, assistive technology, special accommodations, and special evaluation considerations appropriate for students with a vision loss.

Central to the questions posed on the surveys tailored for TVIs and diagnosticians were two research questions: *How would TVIs rate the comfort level and knowledge of educational diagnosticians to effectively manage a caseload of students with visual impairments?* and *How would diagnosticians rate their own comfort level and knowledge to manage a caseload of students with visual impairments?* The questions asked TVIs and diagnosticians whether diagnosticians were knowledgeable about important aspects of educating students with visual impairments such as classroom accommodations, eligibility criteria, awareness of the expanded core curriculum, unique learning needs of students with visual impairments, evaluation considerations and practices, ARD membership, and specific IEP documents required for students with visual impairments.

On some questions, TVIs and diagnosticians appeared to agree. For instance, on the matter of appropriate accommodations in the classroom for students with vision loss, 64.71% (n=55) of TVIs agreed that diagnosticians are knowledgeable about accommodations for students with visual impairments while 75% (n=165) of diagnosticians reported that they have an understanding of which accommodations are suitable for students with visual impairments (See Table 3). Not surprisingly, when it came to the expanded core curriculum (ECC), both TVIs and diagnosticians agreed that there is a lack of knowledge among the diagnostician community regarding the ECC (See Table 5). Of those surveyed, 89.42% (n=67) of TVIs and 75% (n=165) of diagnosticians reported that diagnosticians are not well-informed about the expanded core curriculum. It will be up to professionals who serve students with visual impairments to educate their co-workers about the benefits and legal requirements of offering the expanded core curriculum to students with visual impairments. The importance of diagnosticians consulting with TVIs was recognized by both groups of professionals surveyed (See Table 8). Most TVIs,

60% (n=51) who completed the survey reported that the diagnostician they work with consults with them before attempting to conduct an evaluation to measure cognitive or achievement abilities. Among diagnosticians, the number was even higher with 94.03% (n=208) stating that they don't proceed with an evaluation until they consult with the TVI.

When asked to select documents, agencies, and other VI-specific items of which diagnosticians have a working knowledge (See Table 11), the VI Supplement, which is a required ARD document, was cited by both TVIs and diagnosticians as the most recognizable, with 74.12% (n=63) of TVIs reporting that the diagnostician they work with knows what the supplement is and 82.27% (n=181) of diagnosticians noting that they know what the supplement is. One explanation why so many diagnosticians selected the VI Supplement could be because diagnosticians are often required to complete the document during the ARD meeting based on input from the TVI. Items that fewer diagnosticians selected included American Printing House for the Blind (25.45%, n=56) and the annual VI registration (30%, n=66). An explanation for this could be that diagnosticians normally wouldn't need to order materials from APH and, as far as the annual registration, TVIs are normally responsible for completing the registration in January and the task would be outside the realm of a diagnostician's duties.

One question on which TVIs and diagnosticians did not appear to agree inquired if diagnosticians understood the eligibility criteria to qualify for services as a student with a visual impairment (See Table 4). A slight majority of TVIs concluded that diagnosticians were not knowledgeable about the criteria. However, 71.36% (n=157) of diagnosticians asserted that they do, in fact, know what the eligibility criteria is for a student to receive services from a TVI. Another question with split opinions asked about diagnosticians' knowledge of the unique learning needs of students with vision loss (See Table 6). TVIs disagreed that diagnosticians

understood the implications of vision loss on learning with 59.82% (n=50) reporting that the diagnosticians were not knowledgeable about the unique learning needs of students who are visually impaired, but 70% (n=154) of diagnosticians claimed they were, indeed, informed and knowledgeable about the educational needs of students with visual impairments. Two questions having to do with evaluations of students with visual impairments revealed a difference of opinion between TVIs and diagnosticians. When asked if diagnosticians were knowledgeable of accommodations and modifications allowed on evaluations for students with visual impairments, 63.18% (n=139) of diagnosticians affirmed that they knew which accommodations and modifications were allowed during cognitive and achievement testing, but 57.65% (n=49) of TVIs disagreed (See Table 7). Another question concerning evaluating students with visual impairments showed a deep divide. Only 51.76% (n=44) of TVIs claimed that the diagnostician they worked with waited for the FVE to be completed before proceeding with the cognitive and achievement testing while 84.09% (n=185) of diagnosticians reported that they understand that this is best practice (See Table 8). The high percentage of diagnosticians who reported that they allow for the FVE to be completed prior to the FIE is encouraging, yet some of the individual comments from diagnosticians suggest that some evaluation personnel are not aware that best practice dictates that the FVE and LMA should be completed prior to the FIE.

Finally, on the issue of the diagnostician's comfort level, TVIs were about evenly split on the issue of whether they believe the diagnostician they worked with was comfortable managing a caseload of students with visual impairments (See Table 12). A little over half, 52.94% (n=45), of diagnosticians reported that their diagnostician's comfort level as comfortable or extremely comfortable while 40%, (n=34) described their diagnostician's comfort level as not comfortable or extremely uncomfortable. Six TVI respondents (7.06%) chose not to respond. A clear majority

of diagnosticians, 71.82%, (n=158) described their own comfort level in managing a VI caseload as comfortable or extremely comfortable with two diagnostician respondents (0.9%, n=2) choosing not to answer.

On the third research question, *In which areas do TVIs and diagnosticians agree that there is a lack of knowledge or awareness on the part of the diagnostician when it comes to managing a caseload of students with visual impairment?* one area stood out because both TVIs and diagnosticians agreed that there was not a base of knowledge about the expanded core curriculum among diagnosticians (See Table 5). The research is clear about the importance of offering the ECC to students who are blind and visually impaired (Sapp & Hatlen, 2010). Educating diagnosticians on the benefits of expanded core curriculum can help ensure its implementation. The expanded core curriculum, Miller (n.d.) explains, covers "experiences and concepts casually and incidentally learned by sighted students that must be systematically and sequentially taught to the visually impaired student." Perkins School for the Blind (n.d.) refers to the ECC as a "framework for instruction" for visually impaired students and notes that "while students who are blind or visually impaired are expected to follow the same core curriculum as their sighted peers, there are certain areas in which they need specific instruction because of their vision loss." Although there may be other areas of the field of visual impairment that diagnosticians may not be knowledgeable in, the ECC was one area that both TVIs and diagnosticians agreed could be improved upon. None better to accept the challenge of enlightening diagnosticians – and the wider education community – about the requirements, legislation, and benefits of the expanded core curriculum than teachers of students with visual impairments who specialize in serving and advocating for students with vision loss.

The fourth and final research question, *What do TVIs and diagnosticians believe can be done to better prepare diagnosticians to work with students who are visually impaired?* generated thoughtful response from both groups of professionals (See Table 14). Those TVIs who answered the question were split between workshops (23.53%, n=20), instruction about visual impairment in the diagnostician training program (21.18%, n=18), and receiving training from a TVI (21.8%, n=18) to better prepare diagnosticians to manage a caseload of students with visual impairments. An open-ended question in the survey intended for diagnosticians was designed to elicit comments from diagnosticians on what would help the most in preparing them to manage a caseload of students with visual impairments. Two themes emerged: 1) Collaboration between TVIs and diagnosticians and 2) More training at the university and educational region center level. One diagnostician suggested that meetings with diagnosticians and TVIs should occur at the beginning of each school year. "Although it is best practice to do this," she wrote, "this doesn't always happen. Emails are not enough. I would prefer if that person would come to my campus and look through the folder with me to explain the student's needs." Another diagnostician agreed. "Coordinate with experienced TVI staff prior to the beginning of the school year and throughout to have questions answered and learn the requirements for students who are VI." Yet another diagnostician recommended that diagnosticians work closely with their TVIs. "Each case is so unique. Familiarize yourself with all of the VI supplements and gain some knowledge about post-secondary options and the DARS [now Texas Workforce Commission] tuition waiver."

Several diagnosticians advocated offering a course on visual impairment to graduate students in the diagnostician program and professional development at the regional education centers. "Create a course – Assessment of the VI [assessment of students with visual

impairments],” one diagnostician proposed. “We never discussed this in prep as a diagnostician,” one respondent wrote, “just like what all is required for ECI [Early Childhood Intervention] and transition for high school. There needs to be more real-life situations discussed!” Another suggestion was, “Being that we don’t always have VI students in our caseloads, it's important to have a refresher course of the important information that is relevant when working with VI students.”

Conclusion

Three conclusions can be drawn from this study. The first two findings could be collected around the theme of collaboration and support. Along this theme, one finding that emerged from the responses was the recognition among many of the diagnosticians that, in matters pertaining to students with visual impairments, it was important to consult with TVIs who are trained to work with this specific population. The second finding around this theme found among the responses was that it is imperative that the two groups of professionals, diagnosticians and TVIs, work in partnership to ensure the needs of children with visual impairments receive the best possible services available. Though gaps in knowledge were shown in the findings, even including differences in perceived understanding, the overarching theme of collaboration and support was evident. Diagnosticians and TVIs consistently showed that they were willing to work together for the best interest of the student.

The third finding of this study highlighted how surveyed diagnosticians’ concerns centered on a theme of training. It was found that diagnosticians would like, and benefit from, more training in low-incidence disabilities such as visual impairment to prepare them to manage a caseload of students with visual impairments. As was mentioned earlier, IDEA recognizes 13 conditions of disability. Among those disabilities are low-incidence disabilities that a

diagnostician may rarely encounter. Visual impairment is one of those disabilities that a typical diagnostician comes across every few years. The diagnosticians who responded to the survey appeared to recognize that it was important to have access to a professional steeped in knowledge of the educational implications, technology considerations, and legal requirements that comes with having a student with visual impairments on a caseload. This study did not address where this training would or should be provided. The diagnostician training programs are already filled with needed information so this training may have to be delivered on the local level as a form of staff development of continuing education. Admittedly, there is a dearth of research literature on this topic, but it is hoped that the findings presented in this study will add to and even encourage future research into multidisciplinary cooperation among diagnosticians and professionals who work with students who are visually impaired.

Limitations

There was an adequate response to the call for participation in this study from both diagnosticians and teachers of students with visual impairments. Future studies on this topic might draw richer conclusions if evaluation and vision professionals who work with each other could be interviewed about each other's knowledge and collaborative spirit. This study elicited responses from the broad field of diagnosticians and a broad field of TVIs. How are we to know that the diagnostician being rated by a TVI completed a survey herself? Another question to ask would be, did diagnosticians who already felt they had some knowledge about visual impairment agree to complete the survey while diagnosticians who were not as sure of their knowledge decide not to attempt the survey because they believed that their lack of knowledge would reflect poorly on their professional field?

In this case, research was limited to the state of Texas and only diagnosticians and teachers of students with visual impairments who work in the state were asked to respond. Future studies might broaden the participation pool and survey evaluation and vision professionals from other states in the nation. In future studies, the differences in roles, responsibilities, and various state laws regarding certification standards could be compared.

Recommendations

This researcher was heartened by the honest responses that the surveys produced and believed that the answers demonstrated the desire of both evaluation specialists and vision professionals to work together, share their knowledge, effectively communicate, and learn from each other in their efforts to educate students who are blind or visually impaired.

This researcher would recommend sharing the findings contained in this study with universities in Texas that offer diagnostician certification programs. Although the findings may be considered anecdotal and based on individual's perceptions of their training, these findings should not be construed to suggest that universities are not properly preparing their graduate students to competently fill the role of diagnostician. Perhaps a more thorough examination of low-incidence disabilities, such as visual impairment, could be written into the certification curriculum of diagnostician certification programs. Another suggestion would be to invite guest presenters from the field of visual impairment to speak to a class of diagnostician students. Guest speakers could be drawn from local Lighthouses for the Blind, consultants from Blind Services working for the Texas Workforce Commission or Health and Human Services, a college student who is blind or visually impaired who could recount his or her experiences in the public school system, or professors who train teachers of students with visual impairments or orientation and mobility specialists.

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